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Team Decision-Making through English as a Medium of Professional Medical Communication in Doctor-Doctor Meetings in a Saudi Hospital: A multimethod discourse approach.

by

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Declaration

I declare that this is my own work and that the use of all materials from other sources has been properly and fully acknowledged.

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Abstract

This study addresses the gap in understanding decision-making (DM) as a distinct interactional genre within multilingual and multicultural healthcare teams such as those increasingly prevalent in Saudi Arabia. While previous discourse-analytical research has focused primarily on DM in doctor-patient interactions, little is known about how decisions are made interactively in doctor-doctor communication, particularly in settings where English is the medium of professional medical communication (PMC). Effective DM is crucial in medical contexts, as miscommunication can have serious consequences for patient outcomes. This study empirically explores the language and discursive resources used by doctors in team DM, offering insights for both practicing and future medical professionals. It also provides pedagogical implications for improving English medical education in Saudi Arabia, where current research often critiques the English proficiency of medical graduates without specifying the practical needs of the workplace.

A multimethod discourse approach has been adopted in this study to systematically investigate and answer the research questions. The combination includes the following qualitative methods: Genre Analysis (GA), Conversation Analysis (CA), and Interactional Sociolinguistics (IS). No existing studies in the DM literature have used this kind of multimethod discourse approach to explore decision-making as an ongoing, moment-by-moment process in doctor-doctor team meetings. The primary data in this study are weekly doctor-doctor meetings, during which critical decisions are made. The analysis of the transcribed data started with GA to identify patterns – Moves and Steps – characterizing DM as an interactional genre in a multilingual medical setting. Subsequently, CA was employed to examine the turns within the moves and provided deeper insights into how doctors managed their linguistic and other verbal resources during the DM interactions – most notably code-switching and humour – which emerged as prominent discursive features of the studied doctor-doctor communication. Drawing on IS allowed for the consideration of factors beyond the conversational data, specifically the doctors' epistemic status and primacy, which contextualised the analysis within the medical setting and its professional hierarchy.

The findings that emerged from the GA provided generic features of medical decision-making episodes, where one type was unambiguous and straightforward and less frequent, while the other was more complex and occurred more frequently. Both types of decisions share basic Moves that include Presenting the patient, Pre-decision, Decision, and Closing. However, complex decisions had more variability, as the discussions were more extended and included Moves such as Decision execution details and Re-discussing the medical status of the patients. Both unambiguous and

complex decisions depended on collective agreement, and elaborated turn-taking patterns due to uncertainties were noticeable features in the complex decisions. Uncertainty was expressed using hedges and hesitation, while silences and pauses were a trigger that led to more rationale to back up decisions and show that a decision was not collectively agreed upon.

The findings also show that DM as a genre is in its essence a transactional interaction that, however, much depends on relational work to execute it. Unambiguous decisions were short and straightforward and were almost exclusively conducted through English as the medium of PMC. In contrast, complex decisions relied heavily on discursive resources like code-switching (CS) and humour. The function of Arabic in CS and humour included getting specific details about patient status, defending doctors' professional image, building and maintaining solidarity and harmony, and expressing negative emotions such as stress and anger while under pressure to reach a decision.

This study makes the following contributions. First, it provides an authentic representation of DM as an interactional genre in teams and reveals how hierarchical and epistemic status has influenced this genre. In the studied context, consultants had higher authority in determining the decision and action plan based on their epistemic status, while assistant consultants contributed by supplying the medical information needed to aid the DM process. This shows that while the decision must be made collaboratively, the collaboration had limits. This calls for caution in ensuring that practicing medical professionals are aware of their roles in DM while ensuring that everyone has a voice in the DM negotiations. Hierarchy, epistemic status, and primacy are part of this asymmetrical interaction and guide different team members to operate and interact within the limits and boundaries of their roles. This helps provide structure and organization and offers guidelines on how medical professional should interact with each other.

Another contribution is addressing the gap in the English medical textbooks used to teach medical students in Saudi Arabia. The data revealed a mismatch between the spoken interaction in the textbooks and real-life interactions. For instance, humour and CS are not part of the textbook materials, which does not aid in preparing medical students for the real interactional demands of the workplace. The study also highlights some limitations of using English as a medium of professional communication and calls for further research that takes into account the cultural effects of the context especially regarding multilingual and multicultural membership. It is

important to understand how this diversity influences how medical professionals interact and make decisions, especially when they must do so collaboratively.

Key words: Decision-making, genre-analysis, team, Saudi, medical, discursive resources, humour, code-switching, professional medical communication.

Dedications and Acknowledgments

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List of Abbreviations

CA: Conversation Analysis

CS: Code-switching

DM: Decision- Making

GA: Genre Analysis

IS: Interactional Sociolinguistics

PMC: professional medical communication

CHAPTER ONE: Introduction

'I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice.'

This is one of the key promises that are included in the famous Hippocratic Oath (as cited in Antoniou et al., 2010: 3076). The oath's ethical code, which is attributed to the ancient Greek physician Hippocrates, dates back to 400 BC and continues to be adapted and incorporated into doctors' code of professional conduct in modern day practice (Encyclopaedia Britannica, n.d.). It provides the foundation of ethical conduct for doctors and an adapted modern version, for example the Geneve Declaration, is often used as a pledge that graduating doctors need to swear to before commencing their professional duties. It emphasizes the duty of medical professionals to help the sick using their best judgment while preventing harm to patients. The continuous use of the oath and its guiding principles that stress the doctors' duties towards their patients recognises that every decision taken by the doctors in medical practice needs to be carefully considered by the doctors because it will have immediate consequences that affect their patients' livelihood. This sounds not problematic, but the challenge is that in actual practice, doctors operate under enormous stress dealing constantly with new patient cases, new medical information and this all in a limited time. They simply cannot take forever to make a decision, a process which need to be conducted efficiently and at the same time ethically by strictly following what the oath requires.

As a lecturer teaching medical students in Saudi Arabia, I found myself often contemplating this oath and its message. I realize that my students need to be able to help their patients effectively when they become medical professionals, and this will be reflected in all the decisions that they have to make. They will need to serve the community and help the sick, and they must be prepared to fulfil their duties. To do so, they will need to be able to use a valuable tool for communication, which is language, to achieve their professional goals. This means that their interactions must be efficient and avoid miscommunication. In order for Saudi medical professionals to know how to use their language in ways that help them achieve their professional goals while avoiding miscommunication, they need to be prepared and taught how to use language in medical settings from the moment we teach them in university classes. As an English teacher who instructs medical students in both general and medical English, I question how I can prepare them to meet the communicative demands of their future workplaces. The students will definitely need to use English in hospitals in Saudi Arabia as part of their interaction with their colleges,

such as nursing staff and other doctors or administrators who cannot speak Arabic. Given the need to recruit more medical professionals from abroad, Saudi hospitals have recently become diverse multilingual and multicultural sites (Alhamami, 2020a). While learning English has always been an important professional goal of medical students because of the need to access relevant literature and newer research which tends to be published in English, now English has also become an essential tool of everyday professional medial communication in healthcare context in Saudi Arabia. Written and spoken communication in hospital systems in Saudi Arabia is these days conducted in English, and most daily tasks, such as conducting patients' handovers or weekly department meetings, are done using English even if the staff are Arabic speakers. Thus, helping my students start by equipping them with the necessary English communication skills for their professional environments.

During my time teaching first-year university medical students, I observed both the students and the textbooks. The students are bright and eager to learn—a biased opinion perhaps, but their passion for learning and self-improvement has never disappointed me. This also explains why they got a place on competitive medicine courses preparing future doctors for whom curiosity and drive to learn are essential professional requirements. This was evident whenever they expressed concerns and asked me questions about improving their speaking abilities. However, the textbooks, while good and published by well-known international academic publishers such *as Oxford English for Careers: Nursing* 1(Grice & Meehan, 2007), lacked an authentic representation of what Saudi students might experience while engaging in interprofessional medical communication (PMC) in Saudi hospitals. While the book is directed towards nursing students, it is used at the English Language Centre (ELC) to teach all medical students of all majors because it includes basic information about all medical specialities in English. The book has different chapters, and each covers a specialty such as mental health and raspatory systems which means that the students would get a comprehensive English knowledge of different hospital department before they focus on their chosen major in the future. I noticed in the textbooks a repeated pattern of dialogues that were based on medical terminology and phrases such as 'foreign body', 'dispose of', 'limb', 'initial assessment', and 'stroke'. The students were instructed to use these medical terms to engage in a conversation based on the theme of each chapter. The teacher's book explains that speaking tasks are designed to reflect realistic communicative practices of the language skills needed by nursing students, and it encourages teachers to ensure that students use English during these exercises by instructing the teachers to revise the functional language that the students may need (Grice & Meehan, 2007). There is no step-by-step guide on how to perform

tasks. Instead, students answer questions and write their own dialogues while being prompted to focus on medical terminology. While medical terminology is absolutely vital for medical professionals, it is simply not enough to be able to communicate effectively with others in a medical workplace because there is simply so much more which is involved in real-life professional interactions (Vine, 2020). Even though the publishers aimed to present real-life conversations, particularly those involving interactions between medical professionals, which, along with doctor-patient communication, constitute an essential part of professional real-life medical communication, the way how these conversations are presented did not match how they are conducted in real life medical settings. The data collected for the purpose of this research shows it clearly.

The transcripts in my data, which were records of real meetings, showed that the spoken interactions between medical professionals were complex and were not as perfectly organised as the dialogs of the textbooks. The medical language goes hand in hand with the general English language, and Arabic joins the conversation in many moments. However, this is not included in English medical textbooks, which is partially due to the fact that linguistic research on interprofessional doctor-doctor communication is still in progress. One of the reasons is that this kind of interactions are conducted behind closed doors and access is difficult to gain if one is not a medical professional. As a consequence, there has been little impact on pedagogical practices This is problematic given that the requirement of English as the medium of PMC is growing across the world, but the teaching is still narrowly reduced to teaching medical terminology. Reforms in medical education are considering the need to understand linguistic practices in different communities by looking at multilingualism as an asset that expands physicians' communicative skills instead of relying on only one language during medical interactions (Ortega & Prada, 2020). This can present opportunities but also challenges for interprofessional medical communication in the context in which English is the required medium. Beyond my university work contexts, I engaged in conversations with Saudi medical professionals about how their educational journeys in Saudi Arabia had prepared them for their careers. Successful doctors heading departments at prestigious hospitals in Saudi Arabia and those pursuing postgraduate studies at Ivy League universities reported ongoing difficulties in communicating in English, especially in daily interactions with colleagues. While imparting medical information in reporting or presenting cases in English seemed manageable for the doctors, the other aspects of interactions posed significant challenges. This means that the textbooks were successful in equipping doctors with the medical terminology of their field of practice but failed to fill in the gap of how interactions

develop often in complex ways and beyond medical terms. One of the main aims of this research is to shed light on some of the interactional complexities involved in doctor-doctor communication using English as a medium of PMC. The researcher was extremely fortunate to be able to gain access to a hospital site in Saudi Arabia and relevant interactions, for which English was the required medium of PMC.

A review of the literature on medical graduates in Saudi Arabia and their use of English in spoken interactions (Alfehaid, 2016; Alqurashi, 2016; Alrebish & Taha, 2017) reveals a consensus on the need for better preparation for English communication in hospital settings. Alfehaid (2016) stresses that English for Specific purposes materials need a reform that address the real professional communicative needs in Saudi healthcare.

However, while everyone will agree with this statement, these studies are often generic and lack explicit details on what is missing in the educational journey of medical students. What is more they are rarely based on data from real life interactions and hence, it is difficult to understand what it is specifically in terms of language and language resources that English language teachers need to pay attention to and guide their students in order to prepare them better for the changes of communicating through English as a medium of interprofessional medical communication. When medical students enter the workforce, they need to collaborate with others and be part of teams making decisions about patient treatment. Alfehaid (2016) points that newly graduates face a pressure to improve their workplace performance in which English is a critical part in it. While their medical education provides sufficient medical knowledge and equip them well with medical terminology, the question remains: how do they use English language to apply this knowledge and translate it into decisions? This has led to my interest in researching decision-making in medical contexts, driven by the existing gap in the literature.

1.1 Statement of the Problem

Decision-making is an integral part of workplace communication, especially in hospital contexts where it significantly impacts patients' lives. Hunink et al. (2014) explain that decision-making in healthcare has become complex due to the increasing number of possible diagnoses and tests, leading to various treatment choices that medics must navigate. Unlike many other workplace contexts, healthcare decisions are high-risk because they have substantial consequences for patients' lives and become more complex when involving uncertainties. Pilnick and Zayts (2014) note that decisions in healthcare are often made under the pressure of uncertainty, and how this uncertainty is negotiated and presented during everyday decision-

making and how participants (can) use language to do so remains underrepresented in the literature.

Since hospitals in Saudi Arabia have become divers workplaces where the linguistic diversity contributes to barriers in communication (Alhamami, 2020a), decision-making can be more complex. Today, 75% of physicians and 65% of nurses in Saudi hospitals are not Saudi nationals and do not speak Arabic (Alhamami, 2020a). As a result, English has become a primary and required language of professional medical communication in Saudi hospitals. When medical graduates start working in Saudi hospitals, they therefore join a diverse team force and will be required to work with colleagues from various background and most importantly make decisions together While the literature in the area of health communication and applied linguistics shows that medical decisions are difficult and not straightforward, this research is predominantly based on doctor-patient decisions (Costello & Roberts, 2001; Dew et al, 2015; Toerin et al., 2011; Toerin et al., 2013) and on doctors-doctor decision-making contexts where English is the first language of the participants (Atkinsion, 2004; Måseide, 2016; Sarangi, 2016; Underland & Tjora, 2017).There is a gap in understanding how doctors communicate with each other in a linguistically diverse context to reach decisions through English as a medium of interprofessional medical communication.

This gap has led to the aims of my study which focuses on doctor-doctor interactions in decision-making episodes in a Saudi hospital, where medical professionals come from diverse linguistic and cultural backgrounds, share Arabic as their first language that they speak in different varieties but hold meetings in English per hospital policy to reach decisions on patient treatments. The team of doctors in this study included three male consultants (two Saudis and one Egyptian), four assistant consultants (one Egyptian female doctor, two male Egyptian doctors and one male Yamani doctor) and a female Saudi fellow doctor. The specific medical setting is the department of haematology, involving patients with cancer who need immediate treatment. Doctors must decide how to treat these patients, often dealing with individual cases and high levels of uncertainty. To understand how doctors use language and specific discursive resources to make decisions, I intend to answer the following question:

1- What are the prominent genre features of doctor-doctor decision-making (DM) interactions in a context that uses English as a medium of professional medical communication (PMC)?

2- What are the prominent discursive resources that doctors employ in interactions that aim to reach a decision in a context that uses English as a medium of professional medical communication (PMC)?
3- Based on the results from RQ1 and RQ2, what are the pedagogical implication for improving doctor-doctor decision-making in contexts where English is used as a medium of professional communication (PMC)?

This study used a unique spoken dataset. It is based on meetings between doctors who use English in those meetings to discuss and make decisions about their patients, even though they are all Arabic speakers. The data represent how Saudi and non-Saudi medical teams use English as the medium of PMC in their workplace. It is hoped that the findings of this study will make several contributions.

First, this research will help us understand how decision-making is performed in real life doctor-doctor interactions and the role of language and specific discursive resources therein. As discursive resources, I understand linguistic and paralinguistic devices that individuals resort to convey and interpret social interactions that may include beyond language verbal and paralinguistic features such as humour, intonation, body language, pauses, etc (Holmes, 2000). It will show how specific resources are employed by the doctors to perform decision making and do the jobs in an efficient, professional and ethical manner in a context which is a high risk and requires them to use a language – English – which is not their first language. The research will show the benefits as well as limitations of the policy of English as a medium of PWC and what it can mean for medical teams and patients.

In doing so, this study will contribute to the hitherto understudied area of health communication that of doctor-doctor communication and especially doctor-doctor communication in linguistically diverse contexts. Because of the focus on English as a medium of PMC, this study will also make contributions to the field of English for Specific (Medical) Purposes, specifically in form of selected pedagogical implications. Findings will help raise their awareness of current and future medical professionals of the kind of discursive resources that are employed by doctors in real life decision-making interactions. This will then be useful for navigating discussions and reaching decisions in their own professional life. Understanding what these resources are and what functions they serve is crucial for avoiding miscommunication, especially in high-risk contexts where mistakes can have serious consequences for patients' lives.

To answer the research questions and explore the data, this study employs a multimethod discourse approach based on the analytical concepts and methods from three relevant and

interrelated frameworks that of Genre Analysis (GA), Conversation Analysis (CA) and Interactional Sociolinguistics (IS). GA is used in this study to examine how clinical decision-making is structured and communicated in medical team meetings. GA focuses on how language is used in specific professional contexts to achieve particular communicative purposes (Swales 1990; Tardy and Swales 2014). It identifies recurring rhetorical moves such as identifying problems, proposing solutions, and evaluating outcomes that define a communicative genre. This approach is especially suited to analysing decision-making as it can help reveal how this discourse reflects institutional norms, role expectations, and patterns of professional interaction (Bhatia 2014). In this study, GA helps delineate the structure of decision-making talk and shows how team members use language to negotiate clinical decisions in real time. Additionally, using GA is useful for pedagogical reasons. For medical students, understanding that decision making is a genre with some typical structures (Moves and Steps) will help them understand and perform this particular discourse type in English real-life clinical contexts.

IS is used in this study to explore how meaning is constructed through language in context during clinical team interactions. IS focuses on how speakers use verbal and non-verbal contextualisation cues, such as code-switching, intonation and laughter to signal interpretation, align with others, and manage interpersonal dynamics (Gumperz 1982; Norrick 2010). This approach is especially suited to analysing clinical communication in multilingual and high-stakes settings, as it reveals how talk is shaped by social relationships, cultural norms, and institutional roles. In this study, IS helps identify how team members frame interactions, manage affect, and navigate power dynamics through contextualisation cues to reach medical decisions. For example, expressions of stress or solidarity are identified through paralinguistic features and shifts in footing, while shared references—such as religious phrases or humour—are used to construct alignment or diffuse tension. By attending to both linguistic form and social meaning, IS provides a nuanced understanding of how emotions, intentions, and relationships are enacted in real-time medical decision making.

Conventions of CA are used in this study to complement GA and IS by examining how clinical decision-making is accomplished through talk in medical team meetings. CA focuses on the micro-level organisation of spoken interaction, including features such as pauses, overlaps, to reveal how participants negotiate meaning and manage the flow of conversation (Jefferson 1984; Clayman & Gill 2012). This approach is especially suited to analysing how decisions are co-constructed in real time, as it reveals how proposals, agreements, disagreements, and evaluations are sequentially organised. In this study, CA helps identify how doctors make treatment

recommendations, respond to uncertainty, and use humour or code-switching to navigate interactional tensions and power relations during decision-making sequences.

The combination of these three analytical methods aims to provide a comprehensive account of how decision-making unfolds in clinical team meetings. GA is used to identify and describe the rhetorical structure and communicative purpose of these meetings by delineating the moves and stages such as identifying a problem, proposing solutions, and reaching a decision that organise decision-making as a genre. To complement this, IS adds a layer of contextual interpretation by analysing how verbal and paralinguistic cues such as code-switching, intonation, and laughter are used to signal stance, manage affect, and navigate power relations. IS highlights how shared background knowledge, emotions, and social meanings are enacted and interpreted in the interaction. Conventions of CA are used to examine how decision-making is accomplished in real-time talk, focusing on the micro-level features of interaction such as pauses, overlaps, and sequential organisation. This allows the analysis to capture how doctors negotiate meaning, manage uncertainty, and respond to each other's contributions in the moment. Together, these three approaches offer a layered understanding of how institutional roles, social dynamics, and interactional strategies shape the language of clinical decision-making.

1.2 Outline of the thesis

This thesis is organised into seven chapters. The introductory chapter provides background information based on my experience as a teacher and subsequently addresses the problem while specifying the areas under investigation. Chapter 2 provides a literature review that investigates DM within medical contexts to gain insight into the latest research in this area, followed by an in-depth background on CS and humour, as they proved to be prominent discursive features in this study's data. The chapter also includes the methodological approaches used to investigate DM, CS, humour, and epistemics as a framework in medical studies that utilise CA. The chapter concludes by highlighting the research gap and introducing the research questions. Chapter 3 explains the reason for choosing a multimethod discourse research approach. This chapter provides a detailed background of the data's location, participants, and analytical procedures used to analyse each chapter. Chapters 4-6 presents and discuss the analyses and findings. Chapter 4 serves as the basis for this thesis, as it focuses on analysing DM as a genre while incorporating CA and IS to gain a top-down and bottom-up analysis of this genre. Chapters 5 and 6 present an in-depth analysis of CS and humour to add more dimensions to the analysis and reveal the function and reasons behind utilizing these discourse resources in the data. Finally, Chapter 7 concludes

the thesis by providing answers to the research questions, implications, limitations, and directions for future research and includes a lesson sample based on authentic data.

CHAPTER TWO: Literature review

This chapter is organized into four sections. The first section (2.1) provides an overview of decision-making within medical context. It aims to outline the various discourse approaches used to investigate decision-making and the role of Epistemics as a framework in this area. By incorporating existing research on DM, this section offers a deeper understanding of how decisions are discursively enacted in the workplace. The second section (2.6) focuses on code-switching as a discursive resource in interaction, while the third section (2.7) explores the use of humour in a similar capacity. These sections are particularly significant, given that the data includes a multilingual setting where code-switching and humour emerged as key discursive strategies during medical decision-making meetings. These sections will elaborate on the concepts of code-switching and humour, discuss the methodologies employed to investigate these phenomena, and review the relevant literature that informs the analysis in this study. The final section (5) concludes the chapter by identifying research gaps and formulating research questions.

2.1 Introduction

Decision making (DM) is a complex and integral part of workplace communication (Holmes & Stubbe, 2004), and particularly so for medical professionals on whose decisions patient's life and wellbeing directly depend on DM. Medical professionals, dealing with potentially life-threatening diseases like cancer, face constant and continuous decision-making challenges based on each case's uniqueness and progress (Charles et al., 1997). According to Hunink et al. (2014), daily decisions for healthcare professionals are complicated by the continuous influx of updated patient data and treatment options. Factors such as the accuracy of diagnostic tests, patient history, and treatment side effects, which cannot be generalized, place substantial pressure on doctors. This pressure stems from uncertainties about case ambiguities, varying consultation opinions, disease presence, and treatment effects. Despite these uncertainties, medical professionals must make decisions, facing both expected and unexpected side effects. For this reason, the process of decision making in medical contexts has been over the years expanded to involve multiple individuals in DM. Involving multiple people in DM helps address various treatment options, their possible outcomes, and reduces uncertainty (Charles et al., 1997). Consequently, decisions made in medical settings and communicated to patients are increasingly an outcome of shared decision making often by a team of doctors.

Dy and Purnell (2012:582) define “shared decision making” as a process where healthcare providers communicate personalized information about options, outcomes, probabilities, and uncertainties to patients, who in turn communicate their values and the importance of benefits and harms. Shared DM can be time consuming (Gwyn,2001). It also needs the following four essential criteria (Charles et al., 1997). At least two participants must be involved in making the decision while including perspectives form others such as patient family members or other counsellors. Also, patients and doctors must join in the decision-making process that determines the treatment. Adequate information must be shared that would inform the decision, and lastly, all parties must agree on the final decision. While criteria are based on doctor–patient interactions, they include similar strategies for the decision, as mentioned in the literature, when the decision is only among medical teams. For instance, options and outcomes for DM between doctors would still include extensive and updates information related to the patient’s case in which more than one doctors needs to discuss and come into agreement on the final decision (Arber, 2008). Therefore, this definition that focuses on doctor-patient interactions can apply similarly to doctor-doctor team decisions. Collaborative decision-making in clinical settings offers both advantages and disadvantages (Swallow, Smith & Smith, 2017). Advantages include increased information and knowledge from multiple members, shared responsibility for decision outcomes, and higher accuracy and creativity. Disadvantages involve scheduling challenges, potential lack of consensus, and the possibility of or more powerful group members, such as lead or senior consultants, to overshadow others and dominate the decision making. Despite these drawbacks, research has shown that collective decision-making by multiple medical professionals enhances patient healthcare outcomes; it validates the decision and minimise uncertainties (Bouchez et al., 2023). Masic (2022) demonstrated that leveraging the collective experiences of several doctors benefits the patient more than relying on a single doctor’s expertise.

The shift towards team-based DM aligns with the growing necessity of teamwork in organizational structures (Halverson, 2013; Halverson & Sarangi, 2015). As the workforce becomes increasingly cross-disciplinary and cross-functional, team members must discuss work practices collaboratively, fostering a new mode of professional communication and collaboration. This shift has sparked research interest in understanding team decision-making processes and the factors influencing them, such as group structure and team members behaviour (Reader, 2017). Team DM is complex, influenced by institutional culture and network relationships, which play crucial roles in how decisions are made (Wasson, 2016).

According to Idema (2007), communication in healthcare teams is essential for optimal case management, as different members have varying access to information based on their roles and training. The hospital chart serves as a primary vehicle for communication among team members and significantly impacts the structure and quality of patient care. Effective communication facilitates the exchange of information necessary for diagnosis and treatment, making it a critical component of teamwork in healthcare settings.

Holmes (2003) and Homes and Stubbe's (2004) extensive research on workplace communication identify two types of communication: transactional and relational. Transactional communication refers to interactions that are primarily focused on the exchange of information and the completion of work-related tasks. This type of talk is goal-oriented and centres on the accurate and efficient transfer of information needed to perform duties, solve problems, or coordinate activities. For example, giving instructions, providing updates, or requesting clarification are all forms of transactional communication. In contrast, relational communication is concerned with building and maintaining social relationships in the workplace. This includes informal interactions such as greetings, small talk, jokes, and expressions of concern or solidarity. While relational talk may appear peripheral to core work tasks, Holmes (2003) emphasizes its critical role in fostering camaraderie, managing interpersonal dynamics, and maintaining a positive work environment. It contributes to team cohesion and supports effective interaction by creating trust and rapport among colleagues.

This distinction between relational and transactional talk is particularly important in interprofessional healthcare contexts, where effective communication across roles directly impacts decision-making and patient care. Interprofessional (IP) communication refers to the sharing of information among members of different health professions, which can be verbal, written, or through other mediums, to positively influence patient care (Bekkink, Farrell, & Takayesu, 2018: 262). Considering the nature of interprofessional communication, understanding both transactional and relational communication is essential to this study of team decision-making because they jointly shape how interprofessional teams function and make choices in healthcare settings. While transactional communication ensures the clear and efficient exchange of clinical information necessary for diagnosis, treatment, and coordination of care, relational communication plays a pivotal role in building the trust, respect, and rapport that underpin team decision-making. As Holmes and Stubbe (2004) highlight, relational talk, though often seen as peripheral, supports the interpersonal dynamics that make transactional communication more effective. In high-stakes healthcare environments, where team members have different areas of

expertise and access to information (Idema, 2007), both types of communication are intertwined. A lack of relational rapport may hinder the willingness to speak up, share insights, or challenge assumptions, ultimately impacting the quality of decisions.

Building on the foundational role of transactional and relational communication in interprofessional settings, recent research highlights the need for structured training to support and enhance these communicative practices within clinical decision-making processes. Bouchez et al. (2023) note, based on their comprehensive overview of interprofessional decision-making processes in healthcare settings, the importance of effective communication, group dynamics, and the inclusion of diverse perspectives among healthcare professionals. The authors identify that training is important in interprofessional clinical decision-making because it enhances professionals' understanding of their own roles and the roles of others, fostering communication within teams. Specific training in interprofessional practices, such as decision-making, is essential for improvement, as it helps create a dynamic for change, improves knowledge of shared practices, and equips healthcare providers with the skills necessary to navigate complex decision-making processes effectively. Thus, this study highlights the combined impact of relational and transactional communication on interprofessional decision-making and patient care outcomes, as revealed through the analysis of the decision-making genre.

The same training point is mentioned by Bekkink et al. (2018), who conducted a qualitative study in the United States with emergency medicine residents from the Harvard Affiliated Emergency Medicine Residency to examine their perceptions of interprofessional communication. A key finding was the lack of formal training, with most residents learning communication skills informally through observation and trial and error. This left them feeling unprepared for complex interprofessional interactions. Residents strongly supported the need for structured training, including literature reviews and small group discussions, to improve communication across disciplines and enhance patient care. The absence of a structured curriculum for IP communication not only limits residents' ability to communicate effectively but also undermines the overall quality of patient care, as effective communication is crucial for ensuring patient safety and improving health outcomes. This research therefore reinforces the need for structured communication training for doctors, by showing how both relational and transactional communication shape real-time team decision-making in interprofessional contexts. By uncovering how these communicative practices function within decision-making genres, the study provides insights that can inform future training approaches aimed at improving team dynamics, confidence, and clarity in clinical decisions.

2.2 Decision making in the medical context

DM in healthcare depends on variety of factors such as group dynamics, available medical information, and patients' characteristics (Bouchez et al., 2023). Good decisions are recognised as such when they connect the means and outcomes and involve choosing an outcome with the least resources available (Masic, 2022). There is a need for exchange of information while making a decision which is accurate; thus, doctors rely on information provided by others and this needs to be often validated. The decision depends therefore on a high level of knowledge and unlimited access to information (Masic, 2022). When doctors meet to make a decision, they engage in interprofessional interactions and rely on rhetorical strategies, such as asking questions (Arber, 2008). Questions can be used in DM negotiations while showing diplomatic politeness (Arber, 2008). For instance, permission seeking is accomplished using “can I” and “do you” and helped in reaching a decision about performing specific procedures. Questions for seeking advice or options are formed using “do you think” and “what about.” Because there are cases where a single decision is not enough, more often than not in medical settings, groups of doctors have to think collectively about a solution that would serve the patient (Masic, 2022).

Because most decisions are negotiated and produced through talk, they should be studied at an interactional level (Halverson 2013). A systematic review of research on DM by Halverson (2013) includes business, medical and education research. Since the current thesis focuses on medical context, the results related to medical research form Halverson (2013) review will be discussed next. The results from medical studies reflect how the process is complex in this high-risk context, and they reveal the discursive strategies in institutional settings that are considered interactional strategies that influence DM. The strategies are part of the assessment of information, how agreement is reached, how disagreement is managed and the reflection of organizational structures in interaction. The same review on team DM reveals in the results a focus on medical evidence and assessment of medical information, how patients are characterized in the DM process and challenging decisions politely while dealing with hospital hierarchies. The limited studies on DM in healthcare reflect that team DM research is still underrepresented in this setting.

Despite the small scale of healthcare research representation, assessment of information is shown as a critical part in DM to which teams consider constantly. According to Cicourel (1990), physicians exchange observations to assess their credibility, making the DM process a social interaction. Physicians trust medical information based on the credibility of the source of information. This forces all physicians, whether experts or novices, to be bound to the general and social knowledge that they have at that time. Additionally, medical evidence is considered an

assessment of information as participants use it in their discussions (Maseide, 2006). This medical evidence results from a collaborative setting, because the team works together to reach a diagnosis and treatment decision. Due to the different views of assessing information, Havleston (2013) challenged traditional notions that medical evidence is objective and factual since it is an outcome of interactions among medical staff that establishes the validity of the evidence and rules it as acceptable grounds for treatment and diagnosis. This challenge calls for research that investigates the interactions that medical teams conduct while engaging in DM.

DM within teams often depends on how patients are characterised in the discussion that determine treatments' possibilities (Havleston, 2013). Hughes and Griffiths (1997) look at how the discursive framing of the patients can lead to whether the patients obtain resources or become deprived from them in two hospitals. Their exploration of how the discussion about patients with socially and morally deserving characteristics leads to decisions that would allocate suitable resources to these patients points out that there is also a presence of a bias which might influence decision making. For instance, a patient can be ruled out of treatment by mentioning lifestyle choices such as smoking and being obese. The surgeon listening to the case replied saying 'what am I going to do? Knock him off?' (p.549). This formulation gave a strong implication that there would be a risk of death if the patient underwent surgery.

DM can also be influenced by organizational hierarchies in the DM interaction. This strategy entails that medical information that it originates from an organizational hierarchy and doctors at the top of this hierarchy than from novice doctors or specialists who rely on their general and local social knowledge. Graham (2009) reports that when participants challenge care decisions at hospitals, they resort to complex strategies in which mitigation strategies are an important part of the communication with the institutional hierarchy. For instance, when a social worker posed questioned that challenged the authority of the doctors by questioning a medical assessment, hedges such as 'I mean', 'you know', and 'I understand that' (p.24) were used by the social workers to mitigate the questions.

Another crucial aspect that influences clinical decision-making is uncertainty. Dahm et al. (2024) emphasize the importance of training healthcare professionals to recognize and communicate both certainty and uncertainty effectively within clinical environments. They advocate for diagnostic communication to be a formal part of clinical education, highlighting the need for structured approaches that support professionals in managing uncertainty in real-time interactions. This aligns with the longstanding recognition in medical sociology that uncertainty is a defining feature of medical practice.

Fox (2001) offers a foundational framework by categorizing uncertainty into three interrelated forms: cognitive, existential, and vocational. Cognitive uncertainty arises from the complexity and ever-evolving nature of medical knowledge, where physicians must contend with information gaps, treatment limitations, and the challenge of distinguishing between what is unknown and what is unknowable. Existential uncertainty emerges from the emotional and ethical burdens physicians face when dealing with suffering, mortality, and unpredictable outcomes, which test their emotional resilience and moral judgement. Vocational uncertainty, on the other hand, stems from systemic pressures such as shifting healthcare policies, changing patient expectations, and institutional constraints that impact physicians' professional identity and autonomy.

Despite advances in medical science, these forms of uncertainty remain a central feature of clinical decision-making. They shape how physicians communicate, make judgements, and ultimately find meaning in their professional roles. Understanding and managing uncertainty is therefore essential for both effective patient care and professional development (Fox, 2001). This present study responds to these needs by examining how uncertainty is navigated within team-based clinical decision-making, focusing on the interactional strategies and discursive practices that healthcare professionals use to manage ambiguity, negotiate meaning, and reach consensus. By analysing naturally occurring team interactions, the study highlights how uncertainty is not only acknowledged but actively managed through talk, whether by hedging, deferring to hierarchy, seeking clarification, or drawing on teams' knowledge. This approach underscores the inherently social nature of decision-making in healthcare and contributes to a deeper understanding of how communication practices shape clinical outcomes in uncertain and high-stakes environments.

2.3 Approaches to study DM

Interactions between doctors play key role in decision making processes. Several approaches aim to understand how these interactions are carried out using different approaches and methods. The literature on DM shows that Conversation Analysis (CA) has been one of the leading approaches to understanding how decisions as interactions are made. CA was developed by Harvey Sacks, Emanuel Schegloff, and Gail Jefferson, and it is based on the analysis of naturally occurring spoken interactions (Clayman & Gill, 2012). It is a bottom-up and data-driven analysis whereby the analyst’s assumptions of the data are set aside. It focuses on gathering patterns of similar turns in the interactional data, which is transcribed based on transcription

conventions developed by Gail Jefferson (1984). Beyond the analysis of turns, CA focuses on other conversational aspects such as overlaps, timed silences, and laughter. This demonstrates how turns are exchanged between speakers during their conversations and how these exchanges are facilitated by the things that go in conversations such as pauses, overlaps etc.

Of the studies adopting CA to study DM was by Waston (2016). The use of CA reveals sequences in DM, such as information and joking (Watson, 2016). In the information sequence, more information is requested or offered on the topic. As for the joking sequence, it reveals that laughter has interactional functions, such as repairing relationships after tensions caused by extended disagreements. Other studies that included medical context gave insights into how doctors either made a proposal or listed options to initiate a treatment decision (Toerin et al., 2013). Agreement and disagreement markers with recommended decisions had been identified using CA as well (Costello & Roberts, 2001). The different studies show that utilizing CA in DM studies help in revealing different interactional dimensions that are important for DM since the aim is to reach a decision.

Genre Analysis (GA) is another approach that has been employed to study interactions in healthcare contexts. In general, GA is valuable in analysing professional discourse (Bhatia, 2014). GA is based on the notion of genre, which is defined as Genre is defined as 'a kind or type of text' (Joens et al., 2020:14). Tardy and Swales (2014:166) explain that "genres are formed to carry out actions and purposes", with the specific goal of identifying the rhetorical moves or text parts that have specific functions. Genre represents how discourse is formed and shaped within specific contexts, reflecting terms and communicative practices used in a context while also displaying some of the characteristics of the genre's users (Tardy & Swales, 2014). These characteristics include the power dynamics of the users, gatekeeping practices, and the specific discursive forms embedded within the genre. According to Swales (1990), Genre Analysis looks into how language is used in specific contexts to achieve a communicative purpose, examining elements such as style, type of the text, and the intended audience. The analysis often focuses on how individuals in the genre use linguistic and structural features to communicate effectively. Bhatia (2014) calls for a more comprehensive view of professional communication, supported by insights from genre analytical professional practice studies that illuminate the nature of those practices. This approach reveals hidden complexities related to professional competence.Thus, using models based on Genre Analysis is helpful for filling this gap.

GA has also been applied to study DM. Koester (2006) reports that DM is a frequently occurring genre in workplace communication. The literature of DM in workplaces identifies three

stages or moves of the DM process: identifying the problem, discussing problem-solving and deciding, and reaching an agreement (Willing,1992; Hundsnurcher, 1986 as cited in Koester & Handford, 2012). As Koester and Handford (2012) apply GA in examining DM in a business stetting in an office of an American food cooperative, they identified the same patterns mentioned above. It also included the following process in DM; Situation leading to Problem then Response/Solution and lastly Evaluation. They note that there is a cyclical recurrence if the response and evaluation stages since speakers reject or give new solutions. Using GA in medical decision-making within medical teams can provide insights into the linguistic and interactional features of this genre. Koester (2006) gives some linguistic and interactional features in this genre based on a medical team meeting in a hospital's nursing home care unit as they discussed treatment plans. For instance, speakers used direct language to offer suggestions and hedges, such as "It seems to me" and "we need (to)." The frequent use of the deontic modal verb "need" was notable. Agreement/disagreement and the expression of opinions were unhedged, with examples like "right" and "I have a problem with." The discussions were highly collaborative and filled with interruptions, as professionals jointly made decisions.

While DM is recognized in CA work, the same can't be said in GA studies. To the knowledge of the author, GA studies that explore DM in general and in medical context in particular are not available and requires research attention.

2.4 Epistemics as a conceptual framework on CA interactions and healthcare studies

Brooks et al., (2023) stress that the analysis of healthcare discourse depends on looking into the knowledge of the clinical and social activities embedded in this context, which would have practical implications for how to improve healthcare quality. Within social interactions, people tend to distribute knowledge (Harms et al., 2021), and this knowledge is learned through talk and text (Dijk, 2013). How knowledge is contracted and distributed falls under the term "epistemics." Drew (2018) explains that epistemics are "broadly speaking, the study of the social organization of knowledge, the attribution of knowledge, and the representations and uses of knowledge claims in interaction" (p. 163). Arminen and Simonen (2021) argue that the development of social practices is related to the learning of expertise.

Heritage's (2013) work on epistemics gives foundational groundwork for understanding this concept by explaining it through territories of knowledge, which are epistemic status and stance. "Epistemic status" refers to the positioning of participants in reference to their knowledgeability and right of access to some knowledge domains, which makes the speaker more

knowledgeable (K+) or less knowledgeable (K-). Heritage cites Kamio (1997), who stresses that epistemic status also includes "the rights to possess it and to articulate it" (p. 558). The status can be easily accessed, established, and unquestioned in many knowledge domains, and it is a feature of social relationships. This can be observed in workplace contexts as institutional members with higher hierarchical positions are expected to give requests to their subordinates that is congruent with epistemic status (Wahlin-Jacobsen & Abildgraad, 2020). For instance, in decision-making activity, an adequate degree of epistemic status is a requirement for the individuals such as managers whom information is presented to.

Drew (2018) stressed that when epistemics are contested, it does not necessarily mean a struggle over authority, but rather differences in assessing knowledge. An example of contesting knowledge areas delayed responses, which may signify the listener's doubt of the accuracy of the information. Speakers' discussions may conflict if they all assume K+ status using assertions, which will be solved if one speaker realizes that their knowledge is not correct or out of date. Changes in the position of the status can be expressed in how the stance is uttered.

"Epistemic stance" is related to the exact moments that individuals express their epistemic status towards each other as it is produced in turns of talk (Heritage, 2013). Participants may have a K+ or K- knowledge stance. K- participants, the less knowledgeable, resort to making assumptions and various processes that have to do with their lower epistemic knowledge. K+ ones, on the contrary, may resort to several discourse resources to communicate their knowledge. Drew (2018) explains that the resources may include questions that require more information, such as declaratives and tag questions. Drew (2018) acknowledges that Heritage's research on epistemics has drawn on linguistic studies that illuminated how speakers of different languages would express how they access their knowledge. For instance, they may know information second-hand or have witnessed something themselves. Speakers may resort to epistemic modalities and evidentialities as they index their certainty of their knowledge claims of.

CA has contributed to understanding the epistemic dimension of talk as it can focus on both the ways knowledge is conveyed in interactions and dimensions of conversational epistemics such as who has the primacy, responsibility or access to knowledge (Dijk, 2013). Drew (2018) stresses that in CA-based research epistemics do not refer to the cognition or actual knowledge or lack of knowledge of individuals but rather the attribution of knowledge to oneself and others that is formed within the interaction. The analyst cannot read minds to figure what people know. Instead, analysts study what the individuals display to others what they know or don't know and in what way and by means of which discursive they convey this knowledge.

According to Stivers, Mondada and Steensig (2011), CA research has addressed how knowledge is managed in interactions and included institutional settings in which asymmetry in epistemics is expected to be part of the interaction. The asymmetry is attributed to the fact that lay people reach out to professional because they lack epistemic access to the relevant domain. One institutional site that represent such domain is medical interactions. In medical consultations, patients may have knowledge about their illness experience. Yet, it is the physician that have superior knowledge because of their ability to diagnose and the authority to prescribe medication (Heritage, 2006). The asymmetry creates epistemic primacy which refers to 'asymmetries in interactants' knowledge, which, in turn, impact on their 'relative right to tell, inform, assert or assess' (Stivers et al., 2011:13). Epistemic primacy is the relative rights to know, relative rights to claim, relative authority of knowledge.

All forms of epistemics, including epistemic status, stance, and primacy, are expressed through the use of K plus and K minus positions in conversation, which reflect how knowledge is distributed, claimed, and negotiated between speakers. According to Heritage and Raymond (2005), K+ (primary epistemic rights) is associated with speakers who make first position assessments, implying that they have the primary authority to evaluate the matter at hand. These assessments are rarely upgraded, often downgraded, and reflect a conversational hierarchy where the first speaker's evaluation is treated as more authoritative. In contrast, K− (lesser epistemic rights) applies to speakers who respond with second position assessments, which are treated as subordinate to the first. These speakers often engage in upgrading their assessments as a way to negotiate or assert authority in relation to the K+ speaker.

Expanding on this, Heritage (2013) distinguishes between epistemic status and epistemic stance. A K+ epistemic status refers to a speaker who is more knowledgeable about a topic and is thus expected to assert information or provide answers. A K− epistemic status, by contrast, marks the speaker as less knowledgeable, positioning them to seek information or ask questions. In terms of epistemic stance, a speaker adopts a K+ stance when they assert knowledge confidently, indicating they have access to relevant information. A K− stance is characterized by uncertainty or information-seeking behaviour, such as questioning or requesting clarification. Together, these perspectives show how K+ and K− operate at both the structural level of conversational roles (first vs. second assessments) and the interactional level (knowledge assertion vs. inquiry). These dynamics influence how authority, knowledge, and participation are negotiated in everyday talk. It is important to note, however, that in clinical decision-making, these distinctions are rarely clear-cut. While the concepts of epistemic status and stance are analytically useful, real-world

clinical interactions often blur the boundaries between K+ and K− positions. Doctors, for instance, may hold epistemic authority in their domain yet still express uncertainty, adopting a K− stance, to accommodate the inherently unpredictable nature of patient conditions and the limits of available information. This illustrates that demonstrating uncertainty is not a sign of weakness but a necessary part of responsible decision-making in healthcare, where certainty is often provisional. This perspective informs the present study, which draws on epistemics to understand how epistemic authority and expressions of uncertainty are negotiated in team-based clinical decision-making, where they not only reflect professional positioning but also actively shape the progression and outcome of the decision-making process in ways that cannot be overlooked.

In DM, Halvorsen and Sarangi (2015) indicate that decisions can become engulfed in uncertainty due to limited knowledge that could change at any moment. When the context is healthcare, it is important to have a better understanding of how knowledge is treated or how epistemic status is negotiated in situations of certainties and uncertainties. Including epistemic as a framework will give insights to how doctors use discursive resources to exchange, negotiate, assess and contest medical knowledge in the DM process and provide more guiding structure in the analysis of DM as a genre since it would look into how for instance epistemic status would influence the DM interaction.

2.5 Studies on decision-making in healthcare contexts

There is a scarcity of research on DM in healthcare interactions specifically in doctor-doctor communication, to which DM is central. This section outlines the few studies that addresses decision-making within medical contexts focusing on both doctor-patient and doctor-doctor communications. Although this study focuses on doctor-to-doctor communication, insights from research on doctor-patient interactions remain relevant, particularly in understanding how sensitive topics such as death and critical illness are approached. These interactions offer valuable perspectives on how medical professionals navigate emotionally charged conversations, which also occur in team discussions. Since such themes are present in my data, drawing on this literature helps illuminate how doctors manage difficult topics collectively within clinical teams and, importantly, how such subjects are approached and framed through language. The section is divided into three groups. The first group of studies about DM in doctor-patient research. The second group looks at DM within doctor-doctor meetings. The discussions in all the studies share the aim of reaching a treatment decision. The third group consists of studies that investigate the role of epistemics in medical decision-making. This group is part of the literature because

epistemics is a key component of the conceptual framework used in the analysis, and doctors exchange their knowledge in team decision-making interactions. Insights from these studies will help in understanding the dynamics of professional interaction and the decision-making process within healthcare settings.

2.5.1 Medical Studies on Decision-Making between doctors and patients

The following studies reveal how doctors discuss with patients that they cannot pursue further treatments because the cases are terminal. While these are not DM research per se, it is important to include them because they are part of negotiating the results of a decision that no more treatment can be pursued. Additionally, they show how doctors talk about death with patients, a situation that unfortunately arises in oncology departments. Tate (2020) investigates how oncologists talk about death with their patients when they face patient resistance to undergoing treatment. In such moments, they use phrases such as "you could die" or "it will be deadly" to persuade patients to accept treatment recommendations. In this case, the direct reference to death is used as leverage so that the patient will accept the treatment. Physicians invoke the possibility of death to advocate for a particular treatment. Tate (2020) mentions that decades of studies involving terminal illnesses reveal that doctors still face difficulties and hesitance in such conversations.

Lutfey and Maynard (1998) examine how oncology doctors inform patients with terminal, non-treatable cancers about their prognosis. The doctors do not mention death explicitly but rather imply to the patients that they will die soon. In one exchange, the doctors asked the patient if he is familiar with hospice. Hospice is associated with death and dying. The conversation is also filled with several silent moments, conveying the discomfort of both the patient and the doctor, who carefully approaches the subject. In another consultation, the doctors inform the patient that they are reluctant to give more chemotherapy, believing it would cause more harm than good. They also discuss discharge and helping the patient live as pain-free as possible. When the doctors mentioned again that chemotherapy is not a good idea, the patient asks how he can get better. The doctors reply by saying it would be hard to get better and add that they do not have an effective treatment against this type of cancer, which is melanoma. While the doctors ensure that the patients understand their cases are terminal by repeatedly asking if they comprehend the situation and their future, they do not straightforwardly say the word "death." One of the doctors said that it will always be hard to talk about death with patients, especially if the patients avoid discussing the matter.

The studies described above were doctor-patient centered. Using CA, they show how, through the use of particular discourse features such as hedges “seem” and hesitation marker “guess” were used to indicate uncertainty as doctors made decisions in the presence of patients and with patients. Because the context is asymmetrical and patients tend to follow doctors’ recommendations, DM is more of a one-way street. Yet, the studies have also shown that there is an increasing need for doctors to explain and justify their decisions. The studies also show that reaching an agreement is critical, as its absence would disrupt treatment progress; thus, a decision must be made. The difference between doctor-patient and doctor-doctor decision-making is that the latter is more symmetrical since it involves professionals from the same epistemic community, though their epistemic status may vary. It also requires that professionals from multiple medical fields need to reach a collective agreement. Their interaction as they reach a decision might include uncertainty and disagreements till they reach a decision, it is expected to be a final decision as experts that would be given to the patients. It is vital to see how the medical professional navigate such issues and determine the discursive resources utilize throughout the interaction.

2.5.2 Studies on Decision-Making within Medical Teams

Dew et al. (2015) shows the complexity of cancer-care decisions made in multidisciplinary meetings (MDMs) in an oncology context in New Zealand. Contrary to public assumptions that medical decisions are made exclusively based on medical knowledge, this study shows that decisions depend on several factors, such as the type and extent of the cancer, medical or surgical procedures taken, and social factors such as family support that could influence the patient. The meetings were attended by various specialists, such as lung, breast, and colorectal cancer doctors. CA was used to analyze the audio-recorded meetings to describe the activities and provide details of the doctor-doctor interactions, gaining insights into the nature of these interactions (Heritage & Maynard, 2006). The authors note that some short cases took a minimum of 27 seconds to report and did not lead to extended discussion because some critical information or test results were lacking at that time. The discussions lasted up to 11 minutes in other cases.

The results reveal instances of categorizing a patient’s overall physical status using words such as “resilient,” “fit,” and “frail.” The same applied to personality or psychological states through terms such as “fraught” and “prickly.” While most discussions were objective, based on pathological and medical findings, subjectivity occurred when adding information about patients or their social world. For instance, using words such as "resilience" to describe the patient or

"reluctant to have radiotherapy" to describe the patient's attitude about the treatment. These instances were exceptional in the data.

One of the important findings from this study is the presentation of the structure of doctor-doctor meetings, including:

1- Opening: This includes providing identifying information about the next patient under discussion.
2- Case presentation: Doctors report a clinical assessment, giving the patient's history and characteristics.
3- Provision of additional information: This includes any other description or interpretation when needed from other specialists who are involved in the patient's case, such as pathologists and radiologists.
4- Discussion: Comments and questions are made about the case to provide clarification or offer information or advice.
5- Articulation of the treatment plan: The doctors agree on a treatment plan, which could be already ongoing or a new one. This agreement can take place implicitly. In some cases, the decision (plan) is to wait or do nothing. Assent is rarely requested explicitly in this step.
6- Pre-closure: A closing turn terminates the discussion.
7- Closure: Either the chairman or another member turns the discussion to the next patient.

Although the authors did not refer to GA, the structure could be described by taking the concept of moves. While the meetings follow approximately the same structure, at times Moves 3 to 5 did not necessary occur in that order and were sometimes omitted. This happened when the participants needed to discuss particular cases, such as specific test results that they had to review in the meetings. Prior to case presentations, reasons were given to explain why they would discuss a case. These included sharing information about cases in which a decision had already been made and justifying actions already taken when those actions might be challenged, such as not performing a cancer removal surgery as planned. Other reasons included reviewing previously ordered tests, clarifying a diagnosis or assessment, following up on procedures such as referrals, evaluating a course of action that had multiple options, and asking what needed to be done next. What is noticeable in the data is that clear treatment plan always emerged, even when there were several options, with only rare exceptions due to a high level of uncertainty. For instance, in one case, the presenting clinician admitted to being unsure about what to do.

Authority was revealed in the meetings by who brought the discussion to closure (generally the chairperson) and by which members spoke more frequently and at greater length than others. The course of action was legitimized in multiple ways based on various types of knowledge. Technological authority was the most crucial, as it related to evidence based on pathology reports and other tests. Authority based on evidence from scientific research findings was rare but was used in cases characterized by uncertainty. Encountered authority was expressed by the clinician who most often met the patient and knew the most about them. There was also the authority of lived experience, with surgeons mentioning patients' physical condition as part of the decision-making process. For instance, one doctor mentioned that a patient was not taken to surgery because he had "the most horrible tissue." There was also the authority of clinical experience, with doctors basing their decisions on having dealt with similar cases with other patients. The last two are the authority of the interpreter and referral. The interpreter is about the person who interprets test images, and the referral is related to referral letters about patients.

The authors note that several sources of authority work together in making a decision. In some cases of conflict, when no two sources were in agreement, personal clinical experience became important in determining the decision. The medical team members resorted to several strategies to convince others to agree with them. Justification is important in trying to persuade others regarding a decision. An important resource was justifications based on clinical and experiential authority. A justification could involve categorizing the patient as "very frail" and corroborating it with being unable to perform procedures such as colonoscopies due to poor physical condition, which led to stopping treatment. By contrast, categorizing a patient as "reasonably well" led to a surgery decision. There were rare cases in which extreme formulations or exaggerated terms were used to support certain outcomes, such as not performing surgery due to "most horrible tissues."

Hughes and Griffiths (1997) explain that patients can be ruled in or out of treatment based on their characteristics of a social or moral nature, such as being a smoker, as they would undermine the surgical outcome. The strength of medical evidence in influencing the final decision may differ depending on the medical discipline. For instance, in conferences on cardiac catheterization, viewing angiography films is crucial in making quick decisions about operating on patients. In neuro-rehabilitation admissions conferences, when test results lead to poor and uncertain prognoses, holistic assessment discussions in greater depth are needed to reach a decision, such as those involving predicting the patients' expected recovery.

Schnurr and Zayts (2017) used a corpus of authentic workplace interactional data to analyze whether decisions were made unilaterally or collaboratively. Part of the corpus included various hospitals. While the results show that decisions were made using diverse practices in various teams, most of the corpus reflected that decisions were reached after input from and collaboration among colleagues and subordinates. The authors have also shown that each workplace had developed its own decision-making practices and norms. The medical examples highlight this point, as each institution displayed a different style of decision-making, which could be because one being between a doctor and a patient and the other among a team of doctors. In the doctor-patient example (a pregnant woman), doctors discussed the need for further conclusive tests because the patient's screening test revealed a high risk for Edwards' syndrome[1]. The doctor gave the decision in the form of a recommendation for further testing, did not offer other alternatives to the patient, and provided explicit reasons to support the benefits of deciding for a further ultrasound. This was a unilateral decision, as the doctor did not ask the patient's preference or provide other alternatives.

The medical team example given by Schnurr and Zayts (2017) was a discussion among geneticists, without the patient, to confirm a diagnosis that the patient had dwarfism. In their discussion, the doctors reflected high levels of disagreement as they debated the "normal" body measurements. Uncertainties were reflected in the use of hesitation markers (such as "ehh"), lower voice volumes, and approximate descriptions, such as "one point one something." Their uncertainties were due to the need for clinical evidence (which was the correct measurement of the patient) to reach a diagnosis. After deliberation, they decided to measure the patient again to be certain. This decision was a collective process, as they all took part in the discussion and shared their own expertise, in this case their knowledge of what are set as 'normal' measurements by the medical community.

Zayts et al. (2016) examined how uncertainty was formulated and negotiated in the decision-making of a genetic counselling team. Cases with little uncertainty did not lead to extended team talk, reflecting the team's consensual knowledge regarding the decision. Uncertain cases inspired several discourse/rhetorical strategies. For instance, doctors explicitly expressed their inability to make a diagnosis through expressions such as "we found nothing" and "I could not find anything." Hedges are also reported, such as "I am not sure" or "I suspect/think," and similes, such as "it is like X," represent another discourse strategy. Hesitations and pauses were

[1] Edwards' syndrome is a serious genetic condition. Most babies with this condition die prior to infancy.

also used to express uncertainty, which resulted from several causes, such as technological limitations and ambiguous referral letters.

The team members had to negotiate uncertainty by reassessing current clinical evidence or assessing the client's condition. Decisions were a collective team process as evidenced by the use of collective pronouns in phrases such as "we should use." All the participants in this study's meetings took part in the discussion, but the chair was in charge of directing it, asking questions, and challenging claims. The chair's role could be seen as educating the other doctors, as these conference meetings can be a platform for professional development. The study emphasizes the role of team collaboration in reaching a diagnosis in cases of uncertainty, as it helps in navigating, minimizing, or resolving the uncertainty. The studies highlight how medical professionals need to work as a team to reach collective decisions especially in cases that are embedded with difficulties and undertimes.

Sarangi (2016) provides an editorial overview of research into communication and teamwork in healthcare, foregrounding how team dynamics influence professional collaboration, information sharing, and patient care. Drawing from video-reflexive ethnography, conversation analysis, and discourse analysis, Sarangi (2016) highlights the importance of distributed cognition—where decision-making and problem-solving are shared across team members rather than located in a single individual. The editorial emphasizes how team-based communication is distinct from individual communication, where even silence can be communicative, and where each utterance can function as an action, directive, or alignment cue. Comments like "she walks about in the house" not only report physical capability but contribute to a constructed narrative of the patient's condition. Sarangi (2016) also calls attention to the role of communication in managing authority and role negotiation. Team talk serves to establish professional identities and align goals, and while research has explored doctor–patient interactions, he identifies a gap in understanding how team decisions are negotiated in real-time—particularly in high-stakes clinical environments like handovers and case reviews.

Emphasizing the clinical consequences of poor communication, Dham (2024) highlights how failures in dialogue, especially in hierarchically structured teams, can lead directly to patient harm. Drawing from real-life clinical cases, Dham (2024) argues that breakdowns in communication, particularly those caused by rigid hierarchies, contribute to adverse outcomes in patients healthcare. The study highlights the issue of psychological safety and the risk that junior staff may remain silent in critical situations. One illustrative case features a registrar who hesitated to challenge a senior surgeon's assessment, leading to a delayed diagnosis and worsening of the

patient's condition. To mitigate such risks, Dham (2024) proposes structured strategies: interprofessional collaboration over hierarchy, regular team huddles, and escalation protocols that empower all team members. Communication is framed not merely as a tool but as a skill requiring active cultivation, continuous training, and institutional support.

Atkinson (2004) examines how language constructs competence and responsibility within healthcare teams. Conducted in a clinical haematology unit in a U.S. teaching hospital, the study explores how daily rounds function both as clinical practice and educational platforms. Several discursive devices emerge: contrast, used to evaluate the practices of others; evidential marking, which frames the credibility of statements; and unmarked categorical assertions, typically deployed by attendings to assert authority. For example, a medical student referring to "the people taking care of her" subtly distances the group from the ward staff's judgment. Attendings frequently use unqualified statements to project confidence and stabilize authority. The study emphasizes how these linguistic practices reproduce professional hierarchies while also shaping collaborative norms.

In a case study of medical uncertainty, Måseide (2006) presents how clinical decisions are discursively constructed in the context of ambiguity and moral tension. Drawing on ethnographic observations and transcripts from a thoracic ward, the study centres on a case involving an elderly female patient with lung cancer, where the clinical team discusses whether to proceed with surgery. In the absence of definitive evidence, healthcare professionals rely on a blend of medical data, moral reasoning, and verbal interaction to negotiate the decision collaboratively. Language plays a central role in how uncertainty is managed. Clinicians shift between factual, interpretive, and moral reasoning as they assess the patient's case. Medical evidence, such as lung function and tumour location, is presented but often reinterpreted in light of contextual factors. For example, the phrase "she is seventy-nine" is repeated and used to qualify the description of her lung function as "normal," suggesting that age reframes what is medically acceptable. This reflects how clinical facts are filtered through discourse, where language not only conveys information but performs evaluative work.

The use of verbal descriptions such as "she is otherwise healthy" and "she walks about in the house" serves to construct a narrative of physical capability and independence. The patient's own desire to have the operation is cited as evidence of both consent and moral strength. Informal phrases like "she is a tough old lady" reflect how clinicians incorporate character assessments into clinical logic. These expressions are not strictly clinical but reveal how cultural and emotional meanings are embedded in professional discourse. The discussion does not lead to consensus.

While the chief physician supports the operation, the surgeon expresses hesitation. After a heated discussion, the surgeon ultimately decides not to operate. When asked whether he would feel the same if the patient were his wife, he expresses uncertainty, highlighting the emotional and moral complexity involved. Overall, Måseide's (2006) study illustrates that clinical decisions are not simply determined by clinical facts but are the outcome of discursive negotiation involving multiple voices, professional roles, and moral perspectives. This case shows how discursive negotiation, involving multiple voices and professional roles, is essential in resolving complex medical questions, especially when standard evidence does not lead to a single clear course of action. Through verbal formulations, clinicians construct and justify their decisions, revealing how medical practice is deeply shaped by language, interaction, and the ongoing negotiation of uncertainty.

Måseide (2007) explores how clinical decision-making is discursively constructed and collaboratively negotiated among healthcare professionals in hospital settings. Based on ethnographic fieldwork and audio recordings from a thoracic ward in a Norwegian hospital, the study highlights how language, interaction, and institutional context shape medical reasoning, responsibility, and consensus-building in everyday clinical practice. The author focuses on collaborative medical work during ward conferences and thoracic meetings, where professionals present cases, interpret diagnostic images, and make treatment decisions collectively. These meetings illustrate a socially distributed form of clinical reasoning in which multiple voices—consultants, radiologists, and attending physicians—contribute to shared judgments. Decision-making is mediated through institutional texts, such as referral letters and radiology reports, but is ultimately negotiated in talk.

A key contribution of the study is its analysis of how professionals manage disagreement and uncertainty through discursive politeness and careful negotiation. In discussions among doctors, language use often reflects a deliberate balance of politeness, inquiry, and collaborative problem-solving. For example, a chief physician might say, "I wonder if we should not do that," expressing uncertainty in a way that invites others' input while maintaining a respectful tone. A radiologist might comment, "everything is a bit strange here," acknowledging diagnostic complexity without dismissing colleagues' concerns. When different interpretations arise, a surgeon might ask, "But isn't there particularly much drawing in the new [images]?" This encourages alternative viewpoints. Similarly, a clinician may say, "I'm also puzzled about a contour I've noticed," signalling openness to further discussion and discursive flexibility. These verbal strategies serve to maintain collegiality, manage institutional hierarchies, and facilitate

decision-making. Even cautious or redundant-seeming language plays a role in aligning perspectives, distributing professional responsibility, and legitimizing proposed courses of action. Clinicians also balance moral engagement with professional detachment, ensuring that disagreement remains constructive and oriented toward institutionally appropriate outcomes. Overall, Måseide (2007) demonstrates that medical discourse among professionals functions not just to convey clinical information but as a central mechanism for negotiating uncertainty, coordinating decisions, and maintaining ethical and professional standards. Through careful, respectful verbal interaction, clinicians work through complexity together, reflecting the deeply social nature of collaborative medical practice.

Måseide (2016) examines how medical teams engage in collaborative problem-solving during case discussions in a thoracic medicine department at a Norwegian hospital. Drawing on over a year of ethnographic fieldwork and audio recordings, the study offers a detailed analysis of team meetings involving radiologists, pathologists, oncologists, surgeons, and residents. These discussions are shown to be shaped not only by institutional norms and medical knowledge but also by discursive practices, interpersonal dynamics, and sociability. Team decisions do not emerge through hierarchical commands but through distributed expertise and shared verbal interaction. Medical data such as x-rays and patient records are transformed into "cognitive artifacts" through collective interpretation. For instance, radiologists rely on residents' verbal summaries to locate abnormalities, while residents read aloud from charts to guide the discussion. These real-time exchanges demonstrate how meaning is co-constructed among professionals.

A central focus of the study is the hybrid nature of medical discourse, where technical, moral, and interpersonal dimensions intersect. Clinicians must negotiate not only diagnoses and treatments but also uncertainty, professional roles, and institutional expectations. Framing and footing shifts, where speakers move between clinical objectivity and personal or ethical perspectives, allow for nuanced discussion. For example, a chief physician asking a surgeon, "Would you say the same if she were your wife?" introduces a moral lens to a technical debate, momentarily shifting the footing of the conversation. In Måseide's (2016) study, humour is shown to be an essential discursive tool for managing uncertainty, easing tension, and preserving social cohesion. For instance, in a discussion about whether a lung tumour could be treated with a lobectomy, a consultant jokingly suggests to the radiologist, "describe the distance as clear," prompting laughter. The radiologist responds, "I don't know how serious you want to be, but I will try to be serious" (p. 16). This playful exchange diffuses the seriousness of the moment while still allowing the consultant to signal a preference for a less invasive approach. Humorous remarks

function as a form of conflict avoidance, enabling professionals to raise sensitive issues without escalation. Such moments illustrate how humour supports what Måseide (2016) refers to as the team's "sociability," informal, non-clinical interactions that reinforce trust, collegiality, and the smooth functioning of collaboration. Successful medical teamwork is built not only on clinical expertise but also on communicative sensitivity and interactional skill. Through careful discursive negotiation, professionals manage complex clinical decisions while sustaining a respectful and collegial environment. The study contributes to our understanding of how medical knowledge, institutional norms, and social relationships are woven together through talk in everyday clinical practice.

Underland and Tjora (2016) examine the collaborative dimensions of clinical decision-making in hospital settings, drawing on focused ethnographic observations and video recordings of pre-round meetings in two gastrointestinal surgical wards at a Norwegian university hospital. The study explores how clinicians, particularly surgeons and nurses, navigate uncertainty, negotiate decisions, and construct shared understanding in the absence of patients, who are represented instead through documentation, memory, and professional dialogue. A key focus of the study is on how uncertainties are managed through team-based communication. In these pre-round meetings, healthcare professionals contribute diverse forms of knowledge, ranging from clinical expertise to personal experience, to interpret patient cases and develop treatment plans. While the final decision often rests with the chief surgeon, the process is deeply collaborative, shaped by contributions from across the team. This reflects a collectively validated model of decision-making, where trust and open communication are essential.

The authors introduce the concept of a "collective clinical gaze" to describe how decisions are constructed not through reliance on electronic records alone but through interactive negotiation, shared memory, and contextual judgment. The study highlights that medical records are often outdated or incomplete, prompting clinicians to draw on colleagues' insights to form a comprehensive view of the patient's condition. Team communication is shown to be flexible and situated, often involving overlapping roles, informal exchanges, and the use of humour to manage disagreement and maintain collegiality. Partial knowledge is shared among team members and integrated into a more complete clinical understanding. These dynamics emphasize that effective decision-making is not purely hierarchical but fluid and responsive to the specificities of each case. Ultimately, the study underscores the importance of negotiation, trust, and interactional competence in clinical teamwork. While personal experience enhances clinical reasoning, the authors caution that variability can arise if it is not balanced with formal documentation. Their

findings advocate for a deeper understanding of how clinicians collaboratively construct validity and meaning in routine medical practice. This study draws on this body of research to examine and understand how clinical decision-making is constructed in teams, with a particular focus on how these interactional practices are shaped by the use of English as an additional language, an element that introduces added layers of complexity to communication, understanding, and reasoning in high-stakes clinical environments.

2.5.3 The role of Epistemic in medical decision-making/interactions

Harms et al. (2021) examined the domains of professional knowledge exhibited in simulated handovers between outgoing physicians (OPs) and incoming physicians (IPs) in the intensive care unit (ICU). In this context, knowledge relates to clinical procedures, such as diagnostic procedures, and to clinical reasoning expertise and clinical practice expertise. In the case of procedural expertise, professional knowledge was expressed in the narration of procedures that were carried out. The manner in which the procedures were described showed that they were expected to be known by both parties. For instance, using a definite article (the BOLD gas) or not using any article suggested that these were standard procedures with which all doctors must be familiar. Much of the vocabulary involved medical terminology, indicating another expected shared knowledge among the doctors. In the handover, the epistemic knowledge between the doctors is described as K+ in reference to the OPs initiating the handover, whereas the IPs are in a K− position, as they are receiving the information. The K− refers to not knowing which procedures had been completed to that point and not to a lack of medical knowledge.

Clinical reasoning expertise was apparent when the OP presented the patients, as they assessed the treatment. Their utterances in doing so were formulated as factual and objective statements, such as describing symptoms or test values. At other times, the OP analytically presented the findings by interpreting the results and outcomes. When the OPs explicitly stated their thoughts and reasoning, they were addressing the expert status of the IP. In an example, an OP reported the results of a test by starting with “in any case no,” followed by the results, which indicated an expectation that the IP would know that the results reported were the only expected results. The IP’s minimal response, “hmhm,” reflected their understanding. The expression “as you can see,” which the OP used when making an observation based on the bedside monitor showing vital signs, revealed that there was an equal expert status in both doctors. This formulation assumed that the IP would be able to make the same observation, establishing them as equals in expert status.

Finally, clinical practice expertise was demonstrated when the OP discussed required clinical activities, such as giving the patient sodium bicarbonate only if the patient had metabolic acidosis, showing that the OP trusted that the IP was capable of monitoring the patient and following up. However, this also shows a deontic authority of the OP over the IP, despite their both being physicians in training; when the OP assigned an activity to the IP, it displayed a strong deontic stance. Harms et al. (2021) note that simulated handovers differ from real-life handovers in various aspects, such as duration, number of participants, and extent of work pressure. Their study focused on the transfer of information between professionals. Nevertheless, the simulated handovers used authentic information based on real cases, which would be valuable in training future doctors.

Braak and Huiskes (2022) investigated how expertise is enacted collaboratively as an interactional accomplishment in medical education. Their data included sessions between teachers and trainee general practitioners (GPs) in which they discussed and reflected on the GPs' training experiences. The data were video-recorded and analyzed using CA conventions. The results start with requested expertise, in which the GPs oriented toward the teacher as the person in charge of giving or confirming information. In this situation, the GPs explicitly solicited the teacher's expertise. Examples include residents using tag questions to obtain confirmation, such as "I think so, right?" The teachers responded by nodding or saying "yes" to confirm. While this did not involve any reference to the teacher's experience, it established the teacher as someone possessing the required knowledge. Sometimes, the GPs directed the request at the teacher by gazing at the teacher to directly elicit information.

Expertise may be licensed from the previous conversation. An example of this is when a teacher questioned a resident about visiting a patient on their own. In this situation, in which the teacher identified and questioned professional conduct, the teacher enacted a high epistemic access to the norms of their profession. Even though the resident explained that they had been accompanied by a supervisor, the teacher used formal rules and guidelines to let all the students know how official visits needed to be conducted.

Braak and Huiskes's (2022) results show that all the participants relied on their epistemic positions in their discussions. In this study, professional expertise was exchanged through collaborative socialization, and the participants took turns to accomplish that. The teacher was in the position of the medical expert, transferring and confirming expertise. The enactment of experts helped the residents become socialized in situations in which there could be awkward tension due to poor execution of formal guidelines; this can be a hidden curriculum about which people who

are about to go into practice may not be aware. The authors stress that accomplishing the task of demonstrating expertise is not an individual action, as it required the teacher and the students to contribute to the discussion.

Muragh and Benzemer (2021) investigate how decision-making is collaboratively achieved in teams that include surgeons and their trainees in a context that has a hierarchy of expertise. The study utilizes CA to examine the audio and video recorded data of surgical procedures. The participants were consultant surgeons and teams of trainees in their third and sixth years of specialty training. The results reveal that decisions regarding the steps of the surgical procedures were predominantly made by the surgeons, who are considered the authoritative experts. The surgeons initiated the first assessment and then proceeded with actions either without interacting with the trainees or by occasionally asking for their opinions.

The findings highlight that the trainees were highly sensitive to the differential expertise and professional authority of the surgeons. The study was conducted in a training educational hospital in London, where communication is significantly influenced by status and power relations that systematically shape the interactions between the surgeons and their trainees. The authors explain that in this setting, it is expected that trainees perceive the surgeons as having more authority in leading and directing the surgical procedures. This has given the surgeons more epistemic right to make the decision based on their epistemic status.

Mesinioti, Angouri and Turner (2023) investigate how participants claim, resist, and project their epistemic rights in the context of medical emergencies as they perform their leadership roles. They examine how questions, as linguistic features associated with control, are relevant to the work of medical teams. Drawing on the field of epistemics, with particular attention to the achievement of epistemic primacy, the study shows how territories of knowledge are inscribed in emergency room contexts. As a result, they provide a typology of questions that display K+ (knowledgeable) or K- (less knowledgeable) status and instances of epistemic primacy and struggles. Questions indicating epistemic primacy are often asked by team members in senior positions, such as team leaders. Examples of these questions include polar questions that lead to yes/no answers, such as "Do you want me to take over?", which limit the epistemic rights of the respondent by guiding them to a specific answer. These types of questions do not allow for delays or negotiations, thus facilitating the flow of interaction.

Epistemic primacy is claimed by team leaders and seniors through questions that involve task allocation, setting the topical agenda, offering assistance, and seeking information and diagnostic input. When team leaders ask their questions, they direct them to specific members,

while team members use the collective "we," which does not assign responsibility to a particular individual. Even when team leaders ask questions to seek information, it still indicates their epistemic primacy, as these questions are asked at an early stage and provide information crucial for the decision-making process.

Epistemic struggles are part of asymmetrical professional encounters. These struggles are indicated by pauses, hesitation, and incomplete utterances. For example, a senior doctor asked for information about the operating theatre and was met with a long pause. The question was posed using "we," as in "Do we know the situation of the theatre?", leaving the floor open to the entire team rather than a specific member, leading to interactional trouble. The conversation continued with several interruptions to the senior doctor's dialogue and an overlap of conversations, also indicating interactional trouble. One of the junior doctors joined the conversation with an increased volume, showing an attempt to take part in the discussion. The authors conclude that the institutional and status roles of team leaders play a significant role in determining who has the right or is expected to determine what to say to whom in medical emergencies. However, authority is not solely based on the assigned status of medical staff; epistemic primacy is granted to leaders by the rest of the team and is enhanced by the leaders' years of experience and how long they have worked with other team members.

2.6 Discursive patterns in interaction

Research in multicultural and multilingual workplace contexts has shown the prominence of multiple discursive patterns in communication. The utilisation of discursive resources has become an essential requirement, as employees from diverse backgrounds must be linguistically adaptable to attain results at work because they will collaborate with individuals from different linguistic backgrounds (Gunnarsson, 2013). One of the sources is CS which in used in linguistically divers workplaces as workers use it flexibly and strategically in switches at work (Gunnarsson, 2013). Using different languages at work can affect the relationship between colleagues because languages can be used as a resource to include or exclude others (Vine, 2020). For instance, resorting to a language that everyone is familiar with shows the consideration and willingness to advance working and relational goal at work. While using a language that a minority knows lead to exclusion which leads to negative working impact. When people come from different cultures, they bring with their language norms that may differ from others in how they take turns in conversation, use humour or approach matters directly or indirectly (Vine, 2020). As people work while using a dominant language, they may resort to using specific words

or phrases from another language that would reflect their cultural identity in some situations. The choice of languages used in a meeting, for instance, in a multilingual context can be determined by the collaborative negotiating between the participants or the chair of the meeting (Vine,2020).

In Saudi Arabia, hospitals have become diverse workplaces where people with different linguistic and knowledge backgrounds work together (Alhumaima, 2020b). Ignoring this diversity would lead to results that do not truly reflect the kind of discursive resources that doctors use in such contexts to make decisions. Although the context studied here is predominantly English-speaking and most of the recorded data are in English, there are many instances in which the doctors employ discursive resources of Arabic, which was the other common language. Two resources became prominent in the data: code switching and humour, and for this reason, this part of the literature review turns to these two concepts.

2.6.1 What is code-switching

The code-switching (CS) phenomenon has continued to attract language researchers' interest as they attempt to understand why people use CS and which goals they achieve when they do so (Lin & Li, 2012). Matras (2009) explains that CS generally refers to alternating between languages within a conversation. Along with the term *code-switching*, *code-mixing* appears to refer to situations in which a speaker mixes linguistic codes, but the terms still reflect some different features (Jones & Themistocleous, 2022). CM usually occurs within a sentence (intrasentential) as speakers mix linguistic units – such as words, phrases and morphemes – from different languages in the same sentence. On the other hand, CS mostly transcends sentence barriers (intersentential). Regardless of such differences, many linguists prefer the umbrella term *code-switching* when referring to both switching and mixing. Mukysen (2000) suggest another distinction where CS can be either 'alternational', which refers to alternating languages between utterances or sentences, or 'insertional', which refers to the insertion of a word or a phrase into an utterance or a sentence using a particular base or frame language.

Recent CS research has moved from the initial negative assumption that people resort to CS due to limited linguistic ability and currently views CS users as people with high levels of cognitive control because they need to use their neural network (the brains' executive system) and existing knowledge of the grammatical systems of all the languages in which they are using to code-switch (Li, 2013). If this switching is meaningful, it could occur due to difficulties in achieving specific or adequate expressions in a language, due to a language's discourse structure or due to specific language associations that come up in conversation (Matras, 2009). Still, there

still remains questions about why CS has spread globally even if a country is monolingual. An explanation is provided by Jones and Themistocleous (2022) who note that we live at times where being purely monolingual is becoming rare. It is not unusual that people mix languages as they speak especially if they are highly competent in multiple languages or "codes". When people do so, they present a 'hybrid' way of talking and writing as they mix different linguistic codes and other resources, which is again referred to as CS or mixing.

The existence of CS has drawn the attention of sociolinguists who wanted to understand why people resorted to CS (Jones & Themistocleous, 2022). The specific communicative repertoire resources that people use as they switch, serve to deliver a specific meaningful message. For instance, it can help in managing relationships with others. This has encouraged sociolinguists to develop multiple frameworks that would help them understand how people mix their codes to reach their goals. Because workplace has become increasingly multilingual and multicultural, workplace contexts have become one of the prime sites to investigate CS (Chui, Liu & Mak, 2016; Gunnarsson, 2013). CS has become a resource in the workplace to achieve transactional goals of work while attaining other goals such as establishing workplace relations and constricting individuals' identities at work (Chui et. al, 2016). The extensive research in CS and how it is embedded in the framework for this study, which is interactional sociolinguistic, is the most suitable for explaining why Arabic is being used next to English. CS research has provided a detailed description and examples of CS forms and many discourse function, which is the guiding focal point of the analysis. There is a need to understand how and why medical professionals in this study code switch to Arabic since there is an underlying assumption that they all have a high proficiency in English since they are members of the hospital where the data had been collected, and this is the language of their work field and practice.

2.6.2 Forms and functions of code-switching

According to Gumperz (1982) CS helps speakers retake control of and reshape a conversational context. Speakers trigger this switching when they want to establish a specific connection between their codes and a conversational context. Thus, switching is a form of contextualisation cue; it is a device that helps contextualise information (Brunner & Diemer, 2018). As each form of CS takes place, a different function is served. Understanding and investigating the phenomena of CS requires understandings its forms and functions. For instance, there is an alternational switching which comprises two types, based on discourse-related functions (Matras, 2009). This switching entails either *phrase-level* or *utterance-level* paraphrases

and reiterations. *Phrase-level alternational switching* refers to situations in which CS is used to repeat an utterance while using an idiomatic expression. It is stylistic in that it emphasises a speaker's point of view. In this switch, speakers usually repeat an earlier mentioned point in the second language and add other information in the first language that are related to the conversation and are difficult to translate. The reiterations show the stylistic choice of the speaker and function as a way to present and emphasise their point of view with the hearer. Meanwhile, *utterance-level alternational switching* refers to moments in which CS is used to mark comments, explanations and evaluations. It could be used to express side-comments, explanations, and evaluations that are not mainly related to the original conversation. The function here is to add support to the conversation and highlight some of the ideas that were included in the conversation.

Other CS forms are situational and metaphorical CS. Li (1998) explain these forms as he cites Blom and Gumprez (1972) study as a reference. Situational CS occurs usually as a response to triggers in the interaction. In situational switching, language alteration is linked to the role associated with each language which determines what language to use in specific contexts and social activity. Changes such as shifts in topics, wanting to exclude or include others in the conversation, or having bystanders around would trigger such switch. In this switch, one language is assumed to be more suitable and appropriate for the conversation than the other languages. As for metaphorical CS, the change in the speaker's language choice takes place even though the situation has not changed. This CS has the function of conveying a special communicative intention. Interpreting this intention depends on how the language used is associated with this situation where the switching took place since specific words may be used and deemed appropriate for the situational switching.

Li and Milory (1995) show that CS can be a tool that organises the sequentiality of discourse as it points out the special effects in intra-turn speech sequences. This draws on adjacency pairs in Conversation Analysis since it shows how the language used in the second turn is contrasting with the language of first part of adjacency pair. The switches function to show disagreement, refuse an offer, or initiate repair towards the listener. These switches usually take place after a filled or unfilled pause, and they can be proceeded with some discourse markers such as well or an explanation of why there is a disagreement. An example is given by Li and Milory (1995) based on a dinner conversation between a Chinses/English bilingual mother and daughter. The mother asked the daughter in Chinses if she wanted rice. When the daughter did not answer, the mother asked again. The daughter was silent before choosing English to express that she

wanted something else. The daughter's switch to English is triggered as she expresses refusing to eat rice which indicates her disagreement with her mother's food option.

There are external and internal factors for CS according to Li (2013). Examples of external or situational factors could be the participants and the relationship they have, the topic of the interaction or the settings of the interaction. For instance, In Suri, Italy, people would use standard Italian at church and a localized German dialect at home. According to Li (2013), sociolinguists argue that the motivation behind situational CS involves sociocultural values, power relations of the communities that use specific kinds of CS. As for internal factors, it does not involve the same factors in situational CS, rather it depends on the speaker's intention to convey a specific communicative message.

Other functions of CS are given by Chen (as cited in Matras, 2009) to show the social meaning behind CS using CA approach. Chen provides a typology for CS functions that includes discourse- related switching, content-related switching and ones that are directly code-related. When CS is discourse- related, it contributes to the organisation and structuring of the discourse to achieve the following: 'bracketing side-comments, reported speech, or self-repair, within turns, and for side-sequences, obtaining of the floor, and repair/reformulation, between turns' (p.124). Content-related CS serves several functions such as amplification, expressing uncertainty, changing the topic, disagreeing or for irony and ridicule. Code-related CS that has social functions related to the codes include expressing ethnic solidarity, showcasing authority, expressing symbolic opposition, and flagging a social style.

Because CS could still take place even within a monolingual medium, Matras (2009) claims that the languages that a multilingual has needs to be understood as a representation of a linguistic repertoire in which the individual would choose a language based on the communicative needs and constrains of their situation and context. This means that it is extreme to look and find a compete repertoire separation within a monolingual context, which makes mixing even if it was low in frequency more excepted and common. Speakers may even give themselves more freedom to CS if it answers the situational and contextual constrains. In such situations, code-mixing has the following functions. When the speakers can access and use a combination of their bilingual language by choice, CS can have several functions. It can represent a specific social and cultural meaning based on the words used, and it can be metaphoric as it draws out specific boundaries attached to how the talk is organised. Thus, it gives bilinguals a complete access to a linguistic repertoire that helps them in expressing meanings effectively.

In my CS data, there was significant use of religious phrases, such as oaths, which are covered in the analysis. Since this aspect became an important part of the analysis, the next section will provide a literature review on the use of such phrases, their functions, and the cultural purposes they serve. CS involved using religious phrases such as "By Allah's will" and "I swear to Allah" as oaths. Abdel-Jawad (2000) provides a background on oaths and their use in Islamic cultures, defining an oath as the speech act by which a person binds themselves to do or not do a certain specific physical or juridical act by invoking the name of God or one of the divine attributes (p. 218). The basic function of an oath is to call for the support of a higher being in validating the truth of the speaker's words or actions (Ljung, 2011). According to Abdel-Jawad (2000), Arabs use oaths in various interactions, commonly among friends, family members, and coworkers. Oaths are used to confirm a claim, stress a promise, deny an accusation, or emphasize a warning. For Arabs, using oaths functions as a means of asserting the truth. The use of oaths also reflects the fatalistic views of the community, particularly among Muslims. Using words that contain 'Allah' expresses a dominant underlying belief in the supreme power of Allah, which permeates daily interactional discourse.

Abdel-Jawad (2000) stresses that the use of oaths not only reflects the powerful dominance of religious identity in the Muslim community but also highlights the sociocultural significance of the factors that lead to their use. Functions of using oaths include confirmation, persuading others, and affirming a claim or statement. Oaths can preface information or acts to confirm them. These different uses serve the main function of providing strength and support to the claim made by the oath speaker when facing explicit or implicit challenges. For instance, a father might declare to his children, "I swear by Allah that I will not allow any of you to be late from now on" (p. 292).

Speakers may use oaths to defend themselves against explicit or implicit accusations when someone challenges what they have said. For example, a student might use an oath to tell a teacher that they did the homework themselves, thereby clearing doubts about the situation. Oaths can also function as tags that express the hearer's surprise at what they have heard, indicating surprise or asking for confirmation. In such cases, it conveys sentiments like "You are kidding, impossible, are you sure, I can't believe it, isn't it?" (p. 238).

The presence of Islamic phrases in code-switching is a reflection of Islamic values and identity. For instance, Mahboob and Elyas (2014) analyzed English textbooks titled "English for Saudi Arabia" and explained that even though the books are designed to teach English, they project Islamic perspectives. For example, the book's credits start with the phrase "In the name

of Allah, who is the most gracious and the most merciful" (p. 139). This reflects how Muslims begin any practice by saying this phrase, and its inclusion in an English textbook shows the importance of incorporating Islamic values into all aspects of life for Saudis. Thus, CS can represent the cultural and religious values of the community that uses it.

Other CS functions according to Auer (1984, 1995) include participant-related functions and conversation-oriented function. Participant related function has to do with including or excluding others, the selection of addressee, and changes in the members constellation. Conversation-oriented functions relate to side-comments, language play, highlighting reported speech, reiteration or translation to emphasis a point, mode change such as from forma to informal conversation, and focus or contrast which is referred to as topicalization. Auer (2020) argues any theory that investigates CS must take into account that the meaning of the switch depends on the 'sequential environment'. During the conversational turn, the response of the next speaker indicates their interpretation of the previous utterance, which makes the first turn a critical contextualization cue for determining how the first turn was understood.

CS using discourse markers (DM) has the function of framing units of talk (Matras, 2009). According to Schiffrin (1987:31) DM are 'sequentially dependant elements with bracket units of talk'. DM help organise the structure of the conversation and help in interpreting the information communicated. For instance, using and indicates that the speaker will continue with the conversation while using but signals that a contrasting idea is going to be presented. Contexts that are flexible with the use of more than one language, may promote speakers to select the language of the DM (Matras, 2009).

Function of CS have extended to expressing emotions as multilinguals choose the language they prefer to express their emotions based on the link this language has with their personal experiences (Dewaele,2013). This choice according to Pavlenco (2005) is a result of the multilinguals quick need to reach into the language that gives them the riches linguistic arsenal, which in their case is dominantly the first language. People's CS choice for emotions is influenced by contextual factors such as the interactional goals they want to achieve or the listener's perception of the emotionality of the language (Pavlenko, 2005). In moments of significant emotional arousal such as anger, the speaker would mostly rely on the language that has the highest activated background as their source of expressing their emotions, which is often their first language (Dewaele, 2010).

Speakers use of emotional words help them achieve interactional actions such as giving causes and motives to their actions, which they would achieve with verbal and non-verbal means

such as stressing words or using figurative language (Pavlenko, 2012). Studies on CS report that participants would use their first language to express specific emotions such as affection, endearment, or anger was they give the speaker more satisfaction in expressing their emotions and help them communicate the reasons behind their emotions (Halim & Maros,2014; Pavlinko,2012; Dewaele, 2010). Speakers may also choose to CS with languages that they precise as less emotional for taboo or swear words to avoid the guilt or discomfort of expressing these emotions in their first language (Pavlinko,2005; Dewaele, 2010).

The effect of using a particular language in the switch may reveal information about the languages during the switch in relation to the social background of the users (Bentahila & Davies,1994). For instance, the switching pattern could reveal the roles and status that each language is given during the switch. One language could be associated with formal setting such as education while the other would be used for informal daily conversation.

Beyond the social meanings embedded in language choice and switching, emotional expression also plays a critical role in how speakers convey intent, identity, and interpersonal stance. Since this study analyses emotions within instances of code-switching, it is important to establish a foundation for understanding how emotions are communicated both through linguistic choices and vocal delivery. This provides a necessary basis for interpreting the emotional dimensions of code-switched discourse.

Pavlenko (2005) explains that emotions are conveyed not only through the words speakers choose but also through how they speak. Linguistic cues involve specific vocabulary, sentence structures, and phrase choices that reflect emotional states, while paralinguistic cues refer to vocal features such as pitch, volume, tone, and rate of speech. These elements work together to signal emotional intensity and intent, often shaped by cultural and contextual factors. For example, stress may be linguistically expressed through emphatic or exclamatory language, such as "I can't believe this is happening!" Frustration is often conveyed through terms that denote disappointment or obstruction, while nervousness may surface in hesitant speech, including filler words like "um" or "uh," and phrases that express uncertainty, such as "I'm not sure if I can do this." Paralinguistically, these same emotions manifest through vocal shifts. Stress might be marked by increased loudness or emphatic stress; frustration may appear as abrupt pitch changes or raised volume; and nervousness can be identified through a shaky voice, stuttering, or elongated pauses. These cues are especially important in emotionally charged contexts, as they offer nuanced insights into how speakers feel, often beyond what is explicitly said.

Building on this, Dewaele (2010) highlights the central role of paralinguistic cues in conveying emotion, emphasizing how elements such as tone of voice, pitch, volume, and speech rate shape the emotional layer of spoken communication. These non-verbal features often enhance or even override the literal meaning of words, allowing speakers to express feelings that may not be explicitly stated. A warm and soft tone might suggest affection or comfort, whereas a harsh or sharp tone may convey anger or irritation. Similarly, high pitch is frequently associated with excitement or anxiety, while a lower pitch may reflect calmness, seriousness, or resignation. Volume also plays a key role, with louder speech typically linked to emotional intensity such as anger or enthusiasm, and softer speech to sadness or shyness. Dewaele (2010) also notes that speech rate and strategic pauses are emotionally meaningful—fast speech may indicate excitement or nervousness, while slower delivery or hesitations can suggest thoughtfulness, uncertainty, or emotional difficulty. Importantly, tone of voice serves as a key indicator of negative emotions, with specific qualities—such as monotone delivery—suggesting sadness or disengagement. The emotional impact of tone is not only shaped by vocal features but also by grammatical structure. For instance, progressive tense constructions (e.g., "people are screaming") tend to evoke stronger emotional responses than their past-tense counterparts ("people screamed"), illustrating how linguistic form can amplify emotional expression. These findings underscore the complex interplay between paralinguistic cues and linguistic structures in emotional communication, and the importance of listening beyond words to fully understand a speaker's emotional state.

Schuller et al. (2013) further expand the understanding of paralinguistic cues by highlighting a broad range of non-verbal vocal features that accompany speech and convey emotional meaning. These cues are embedded in the flow of spoken interaction and often reveal underlying emotional states that words alone may not capture. Coughs, for example, while not linguistic in nature, can signal nervousness or discomfort, subtly contextualizing the spoken message. Laughter typically expresses joy, amusement, or social bonding, but can also reflect nervousness or relief, depending on the interactional setting. Similarly, filled pauses such as "um" or "uh" function as markers of hesitation or uncertainty, often indicating anxiety or careful thought. Pitch variations also play a crucial role, with higher pitch associated with emotional states like excitement or anxiety, and lower pitch with calmness or seriousness. Another expressive cue, breathy voice, can suggest intimacy, emotional warmth, or even seduction, especially in emotionally charged or relational contexts. Additionally, prosody—the rhythm, stress, and intonation patterns of speech—shapes how messages are perceived emotionally. A rising

intonation may signal uncertainty, while flat intonation might suggest disengagement or boredom. The authors also point to semantic connotations, noting that emotional meaning is not limited to vocal tone but can also be conveyed through the emotive power of word choice. Words that carry social or cultural judgment, like "slut" compared to a neutral term like "woman," evoke strong emotional reactions and reflect embedded attitudes. Together, these paralinguistic and semantic cues enrich verbal communication by layering emotional depth onto speech. They offer crucial insights into a speaker's internal state and relational stance, helping listeners interpret meaning beyond the literal content of words.

Ginzburg and Mazzocconi (2020) explore how emotions can be detected in transcripts through the analysis of both linguistic and paralinguistic features, emphasizing that emotional meaning is embedded not just in what is said, but also in how it is expressed. Linguistic cues such as specific word choices, sentence structures, and stylistic elements are central to signalling affective states. Positive language, including words like "wonderful," "amazing," or "love," can indicate joy or enthusiasm, while negative terms such as "terrible," "hate," or "disappointed" reflect sadness, anger, or frustration. These lexical choices, especially when used repeatedly or in emotionally charged contexts, reveal the speaker's internal state and the intensity of their feelings. The authors also note that exclamatory sentences (e.g., "I can't believe it!") often convey heightened emotions, whether excitement, shock, or anger. Additionally, diminutives like "little" or "tiny" can express affection or emotional closeness, while intensifiers such as "very" or "extremely" magnify emotional force. Figurative language—including metaphors and similes—further enriches emotional expression, offering nuanced insight into how speakers conceptualize their feelings. For example, saying "my heart sank" evokes sadness or disappointment, while "on top of the world" communicates elation. Finally, the emotional tone of a transcript also depends on contextual phrasing and delivery. The presence of laughter, for instance, may carry different emotional implications depending on whether it appears in a light-hearted or serious setting. Sarcasm, similarly, may indicate frustration or nervousness depending on contextual cues. These findings underscore the importance of examining both linguistic form and communicative context when interpreting emotion in discourse, particularly in transcript-based or interactional analysis.

Together, these studies highlight the complex interplay between linguistic and paralinguistic cues in expressing emotion. From word choice and sentence structure to tone, pitch, and prosody, emotional communication relies on both what is said and how it is delivered. Recognizing these cues provides deeper insight into speakers' emotional states, enriching interpretation and enhancing the analysis of spoken and transcribed interaction.

Homes and Stubbe (2004) work on LWP provide the following functions for CS in the workplace. They begin by providing two broad categories for CS which are transactional function and social or affective functions. In transactional CS, the referential functions of language are used strategically to guarantee that the conversational information is conveyed with accuracy and unambitiously. Any subcategories with the transactional function aim to help the addressee understand the primary code of the conversation and enables them to carry on with in the interaction. Subcategories may include referential/informative function to convey information accurately, discourse management functions such as clarifications or repair strategy, and heuristic function like scaffolding to assist language learning or problem-solving. In the end, transactional CS focuses on accuracy while conveying information or instructions because it has the sole purpose of achieving specific communicative outcomes. Transactional function is evident in the doctors' meetings data in the current study. For instance, one of the consultants used CS to find out how long was the patient using the medicine vanco in the transcript below.

140 Naji / طيب و كم يوم صار له على ال vanco? =

/ *ok so for how many days he was on* vanco?=

Quite the opposite is the social or affective CS. Switches here 'contributes to the individual's construction of their social, ethnic, professional or gender identity in a particular context, as well as switches which are other-oriented and which emphasise what participants have in common, including such dimensions as work relationships and ethnic group membership' (p.136). Subcategories include personal functions such as constructing social identity or status, intrapersonal/relational function like establishing solidarity or mitigating FTAs, and intergroup function such as highlighting or downplaying ethnolinguistics boundaries. The current data reflected this function as well as the doctors switched using religious phrases such as والله which is 'I swear by Allah'. This switch indicates their joint religious identity. While the distinction between the categories is helpful in guiding theoretical analysis, Homes and Stubbe (2004) point out the distinctions between them is not absolute as a transactional function could also serve a relational function within it and vice versa.

2.6.3 Approaches to studying CS

The approaches to studying and analysing CS, while varied, have been heavily driven by approaches aimed at explaining the social meaning behind using CS among bilinguals (Lin & Li, 2012). One of the leading approaches is interactional sociolinguistics (IS). This approach, founded by Gumperz (1982), has explained some of the motivations behind CS, such as metaphorical and

situational CS. In IS, while the focus is on face-to-face conversation, it also takes into account other contextual factors that affect the interaction, such as participants' diversity and how their social diversity impacts communication (Gumperz, 1982). Accordingly, other sources complement the analysis, such as interviews and observations of the context under investigation. IS pays attention to contextualization cues, which are signals that speakers exchange to reference meaning.

Another approach is Conversation Analysis (CA), which uses fine-grained analysis of turns, including paralinguistic features such as pauses and their duration, to understand meaning-making in the interaction (Lin & Li, 2012). This approach focuses on what the code-switcher aims to achieve through CS. Wei (1998) reports that using CA for CS, attributed to Auer's work, has gained attention in the research community and led to several benefits. It highlights which language has priority in the conversation since sequential turns exemplify the organization of turns and when the switch occurs, affecting the participants' language choices. Additionally, the meaning of CS depends on the context and turns of the conversation, limiting the analysis to the details of the interaction only.

Auer (1998) insists that the meaning behind CS must consider the sequence of the switch. This involves looking at the conversation prior to the switch, the switch itself, and how people respond to the switch. Auer believes that previous utterances set the contextual frame for the conversation, and the response to CS reflects how the switch was interpreted. This makes subsequent utterances crucial for both the analyst and the first speaker since they determine how the other speaker understood the first speaker. Auer emphasizes understanding the activities where bilinguals choose to CS. Based on his review of the literature, he challenges the typology for switches, such as reported speech or side-comments, because these categories do not take into account sequential analysis to reveal the actual meaning behind the switches. Auer's biggest critique of such typologies is that they assume both languages hold the same status during the conversation and do not provide a satisfying answer to why people resort to CS. Understanding CS requires a multifaceted approach that considers both the social context and the sequential nature of conversations. IS and CA offer valuable insights into the motivations and implications of CS, highlighting the importance of context and the dynamic nature of language use among bilinguals. These approaches underscore the complexity of CS and the need for detailed analysis to uncover the underlying social and communicative functions.

2.6.4 Studies on CS

This section reviews some of the studies that explored CS in professional contexts that are relevant to this research including: workplace (Alharbi, 2016; Homles & Studbbe, 2004), educational/academic contexts (Al Makoshi, 2014), and medical (Belaskri & Drew, 2023; Gasiorek, Van de Poel & Blockmans, 2014; Singo, 2014). The study by Hewett, Watson, and Gallois (2015) is not a CS study but a language accommodation study. It is included to show that the sensitivity of clear communication in medical context can be affected even if one language is used.

Holmes and Stubbe (2004) explored the social and discursive function of CS in the New Zealand workplace. They identified transactional and social or affective functions of CS among Maori, Samoan, and Pakeha employees who primarily communicate in English. Transactional CS relates to the referential functions of language and is used to ensure information is conveyed clearly and unambiguously, such as in taking turns or giving feedback. This type of CS aims to achieve specific outcomes by accurately conveying information or instructions.

Social or affective CS on the other hand considers the relational or interpersonal functions of language as a goal in interaction. Individuals use this type of CS to construct their social, ethnic, professional, or gender identity or to make it other-oriented, focusing on shared ethnic membership or working relationships. Holmes and Stubbe (2004) further emphasized the social function of CS in their study of workplace interactions between Maori and Samoan New Zealanders. In this context, CS helped construct social identity, establish/maintain solidarity, and negotiate ethnic boundaries. For instance, employees used informal styles consistent with Maori conversational norms, such as swearing, joking, laughter, and informal discourse markers like "you know" and "like," to reduce formality and build solidarity. CS was also used among Samoan team members to build and maintain solidarity or reduce face threats. For example, an employee shared a complaint with a colleague in Samoan, switching to English when referring to other Pakeha team members. This switch served as a positive politeness strategy, reinforcing the main points of the story and sharing a feeling of solidarity. The use of English for self-directed quotes, direct complaints, and instructions, while Samoan was reserved for narratives, highlighted the dynamic use of CS.

Alharbi (2016) investigated business meetings in an international company in Saudi Arabia, revealing that CS was a vital communicative strategy. The staff comprised 52% Saudis and 80% non-Saudis who did not speak Arabic, including nationalities such as Pakistani, Filipino, Spanish, and American. CS was notable in signalling the cultural identity of participants, with

phrases like "Inshallah" (God Willing) and "Alhamdulillah" (Thanks to Allah) expressing agreement, gratitude, or acceptance of outcomes. This reflects Saudi Arabia's religious context, where connections to Islam are expressed through such phrases.

CS also served functions like accommodation, emphasis, asking for assistance, inclusion/exclusion strategy, building rapport and solidarity, repair, and humorous effect. For instance, one participant used Arabic when working with a colleague less proficient in English, demonstrating accommodation. Exclusion was evident when two non-Arabic speakers used their mother tongue to converse in a meeting. Building rapport was achieved through endearment terms such as "my friend" or "my brother" in various languages. For example, a Saudi employee called her Filipino friend "maganda," meaning beautiful, when asking for help on a work matter.

Educational setting is represented in the study by Al Makoshi (2014) that examined the use of Arabic discourse markers (DMs) in Saudi-based academic medical lectures delivered in English. The study aimed to understand the occurrence and reasons behind CS using a corpus-based approach. The results indicated that Arabic DMs were used as topic developers (15.5%), topic initiators (10%), summarizers (1.2%), and closers (1.2%). For instance, lecturers used "laanue" (because) to elaborate and clarify points, and "fa" (so) to indicate topic development, initiation and closer. Lecturers also used DMs to check for student understanding with phrases like "mafhoom?" (understood?) or "wadhih" (clear). The study highlighted the use of CS with religious expressions, such as "inshallah" (God willing), to discuss future plans, emphasizing the shared Muslim identity among participants. CS that did not include DM was also used to serve functions like solidarity, elicitation, and expressing emotions. For example, lecturers used terms like "ya shabab" (boys), "ya jama3a" (group), and "ya ikhwan" (brothers) to foster a sense of in-group inclusivity and reduce classroom tension. When students were unresponsive, lecturers expressed frustration using CS to encourage engagement.

There has also been some research examining the role of CS in medical contexts to highlight its importance in effective medical communication. Gasiorek, Van de Poel, and Blockmans (2014) report that doctors working in five area hospitals in Belgium use code-switching to accommodate their interlocutors. These hospitals already promoted a bilingualism policy for using Dutch and French. Additionally, doctors sometimes resorted to using other various languages such as English or Turkish in their interactions with colleagues or patients. Doctors explained that they code-switched with their colleagues and patients to engage with them, get their point across, or ensure they were understood.

Belaskri and Drew (2023) look into how CS of Arabic-French is used in medical consultations in Algeria to reveal how CS is used to build and organise activities in medical interactions. The audio recorded data was analysed using CA to examine the linguistics choice of the participants. The doctors' first language is Algerian Arabic, and they are fluent in French. The results reveal that the doctors had an interactional order for the language choice as they choose Arabic with the patients and French with the other doctors. For instance, the doctor would use French as medical teaching activity as they speak with the resident doctors and discuss the patient case with them. This shift included the use of medical terminology in French, and it served to achieve organisational purposes of the interaction since it is used to discuss details of the case. Using it with other doctors in the presence of the patient has isolated the patients form the interaction but also confirmed the status of French as a higher prestige language for professional communication in this particular context. In this study, the doctors used French with medical terms even in the presence of CS moments. Similarly, Alhamami (2020b) report that Arabic doctors would use English for medical terms even if they CS to Arabic with other team members. The author explains that having a unified Arabic translation of the medical terms is difficult, which could be why they use English with medical terms.

Belaskri and Drew (2023) study also add that even when the patients choose to use French with the doctors, the doctors responded in Arabic which made the patients use Arabic too to establish it as the language of communication between them. However, a doctor switched to French with a patient for fixed purposes. For instance, a doctor used French to establish her medical authority when the patient challenged the doctor's treatment and decision. This served the function of pushing back against the resistance of the patient. So, using French with the patient enabled the doctors to maintain her status as the medical professional with the knowledge and institutional power during the consultations. The doctor switched back to Arabic after establishing her role as the decision maker in the consultation. Thus, the doctor resorted to French to terminate the patient's resistance.

The study by Singo (2014) explored the use of code-switching in consultations in Zimbabwe between doctors and patients, where the first language is Shona and the second is English. The consultations were mostly conducted in English. Doctors switched from English to Shona to give explanations, often repeating the same information in Shona to emphasize their points. CS occurred even when both the doctor and patient were fluent in English, prioritizing patient understanding to ensure effective healthcare delivery. Additionally, doctors used CS for emotional functions. In Shona culture, pregnant women are treated with respect, and in one

consultation, a doctor used Shona to mention the woman's baby, showing empathy and utilizing the emotional effect of using the culturally significant term.

Lastly, the study by Hewett, Watson, and Gallois (2015) examined the language used in medical records for treating patients with upper gastrointestinal bleeding in a large metropolitan hospital in Australia. The treatment for these high-risk patients required consultations from several department specialists. The purpose was to determine if doctors from other departments (outgroup doctors) could understand the language used in the records as well as doctors from the same department (ingroup doctors). The study found that ingroup doctors easily made inferences and drew conclusions from the records. In contrast, outgroup doctors had difficulties understanding some notes and technical terms used by other departments, leading to a lower understanding of the cases and records. The authors point out that the ingroup doctors' lack of accommodation for the outgroup doctors put patients at risk due to potential incorrect recommendations. This study, conducted in a monolingual context, raises concerns about the complications that could arise if communication involved a non-native language or reverted to a first language not shared by all medical staff.

All the studies prove that CS is an unavoidable part of divers and multilingual settings as it is used in communication for various functions such as enhancing clarity, fostering cultural identity, and managing professional relationships in various contexts. In workplace settings, CS ensures clear and effective communication. In medical consultations, it accommodates linguistic diversity, improves patient understanding, and establishes professional authority. In academic environments, CS aids in topic development and emphasizes key points. These studies highlight the essential role of CS in facilitating effective interactions in diverse professional settings.

This part covered CS as a valuable discursive resource in multilingual and multicultural contexts to show how CS has various functions that would advance workplace communication. CS reflects the language choice in a professional context and how the language is used on practices in the working settings (Gunnarsson, 2013). The next part of the literature will cover humor with a focus on the use of humor in workplace spoken communication in medical and non-medical contexts.

2.7 What is Humour?

Humour has been a subject of interest in many different fields, including anthropology, linguistics, philosophy, psychology, communication and sociology (Attardo & Raskin, 2017; Plester, 2016). Vine (2020: 96) defines *humour* as something that ‘occurs when a speaker says or

does something amusing, and when one or more interactant perceives it as amusing'. Humorous utterances by a speaker who wishes to amuse others can be identified through paralinguistic and discourse cues, such as smiles and eyebrow lifts (Holmes, 2000). Researchers across disciplines have shown that humour can take on multiple dimensions, with both amusing and dark sides, serving as a tool for creating pleasant effects as well as a strategic device in serious workplace or transactional interactions (Holmes, 2004; Schnurr, 2009; Plester et al., 2022).

Sharing humour is an interactional achievement that relies on both the addresser and addressee and has a strong dependency on the context and the people involved in the situation, making humour challenging to study (Holmes, 2000). Complexity arises from individuals' different interpretations of and reactions to humour as well as other factors, such as demographic diversity and contextual situations (Plester, 2016). A humorous utterance may be funny to some people, while others might not understand it or even find it offensive. Atypical responses to an utterance intended as humorous may include expressing offence when humour fails. Humour can be dangerous if used to offend or attack the addressee, which explains why humour is not always a source of amusement and positive laughter (Schnurr, 2009). Positive or negative reactions to humour depend on the function it serves, and humour can be both enjoyable and ambiguous (Attardo & Raskin, 2017; Plester, 2016). It can be enjoyable because most people enjoy laughing and having a good time, while ambiguity may occur when it appears in circumstances that can be considered serious in which jokes and funny remarks are generally not expected or found inappropriate. Whereas in informal contexts such as a small talk between friends in a coffee shop humour is expected and generally 'rewarded', formal contexts such as those associated with workplace are spaces where humour is less expected. However, as research has begun to explore various workplace contexts in more detail, it has been revealed that humour is also used within formal settings where it fulfils a variety of functions (Holmes, 2000).

This section will first discuss the main approaches to examining humour. It will then be followed by a discussion of humour forms and functions, with a particular focus on the functions of humour in workplace contexts. Finally, laugher will be examined as a it is a verbal representation and or indicator of humour.

2.7.1 Approaches: How to Study Humour in Conversations

Daves (2017) provided a summary of the sociolinguistic approaches used to study humour. Sociolinguistic approaches go beyond examining humour from a linguistic perspective (e.g. structure of the joke) and focus on how the manifestation of humour in language relates to society.

As described by Daves (2017), earlier approaches established an ethnographic base for studying humour that led to the discovery of humour as part of the interactional discourse. Later, research became more oriented towards discourse, building on Gumperz's (1982) interactional sociolinguistic orientation. This included looking at how speakers were aware of the norms and skills needed to perform humour, which they learned from their interactions with others, and how they used it to rely on information, and negotiate and construct relationships with others.

According to Daves (2017: 482), sociolinguistic approaches reveal that humour is a 'multimodal aspect of interactional style' that people learn as they socialise with others, which links it to social class, gender, ethnicity and regionality. Since this shows that humour is deeply embedded in the social context, it cannot be understood without an appropriate analysis of the context in which it is used. Analysts using sociolinguistic approaches aim to understand the nature of discourse and explain how speakers can use humour to convey complex social meanings and relationships in ongoing interactions.

According to Norrick (2010), interactional sociolinguistics (IS) and Conversation Analysis (CA), which are qualitative approaches, are particularly suited to studying humour in naturally occurring conversations. In CA, a microanalysis of natural talk is used to provide a detailed sequence of the moves involved in telling jokes and producing laughter. Jefferson (1979) used CA to detail the moves of jokes with laughter to show that when the speaker uses a joke that results in laughter from the listener, it can lead to further use of humour and laughter that refers to the first joke. Norrick (2010) pointed out that IS fundamentally influenced how humour is examined in interaction, as it focuses on framing and contextualisation cues. According to Gumprez (2015: 314) contextualisation cues 'refer to any verbal sign which, when processed in co-occurrence with symbolic grammatical and lexical signs, serves to construct the contextual ground for situated interpretation and thereby affects how constitutes messages are understood'. Examples of contextualization cues include code-switching and paralinguistic features. Framing is explained by Gordon and Tannen (2023) based on Tannen's identification of two types of frames, frame for interactive frame and knowledge schemas. The former refers to what people are doing during an interaction and their understanding of it. The latter refers to the assumptions and expectations that speakers have of the world such as people and event. Frames and contextualisation cues refer to the linguistic and paralinguistic features in the interaction, such as discourse markers and intonation (Gumperz, 1982). When analysts establish an action that functions as a play frame, they can refer to it as the reason for laughter being elicited.

Other approaches include using politeness theory and corpus-based discourse analysis (Attarado, 2020). Humour is described as a form of politeness, since the speaker uses it to broach difficult situations and topics while using a softer tone to relay the messages without disrupting the harmony among speakers. In politeness theory, humour is a strategy used to express positive politeness (Brown & Levinson, 1978). The analysis of politeness theories reveals how people use politeness or impoliteness to maintain good relations or cause offence (Vine, 2020). The key concept in politeness is face, which is represented as positive face or negative face. The former is created when the speaker seeks approval, while the latter is created when the speaker wants to be unimpeded (Brown & Levison, 1987). Holmes (2000) explained that applying politeness theory in the discourse analysis of humour led to a number of insights regarding the use of humour in conversations. It reveals the positive politeness of humour. This positivity occurs when the listener's positive face needs (e.g. group solidarity) and the speaker's positive face needs (e.g. self-deprecation) are addressed. Humour becomes negative politeness when it is used towards the hearer to attune face-threatening acts (FTAs), for instance, by hedging a directive, or the listener's positive face, such as hedging a criticism. Vine (2020) mentions that using politeness theories provides insights into how the relational side of the interaction takes place in a context such as the workplace. As humour research expands into in workplace contexts, approaches that provide qualitative micro-level analysis have become prominent (Holmes, 2015). Accordingly, approaches such as IS, CA and politeness theories have been among the leading approaches in investigating and analysing discourse in the workplace.

2.7.2 Forms of humour

Humour can be expressed though different forms such as irony, self-deprecating humour, telling anecdotes, wordplay, fantasy humour and teasing. The first five of these are explained by Hay (1995):

- *Irony* happens when the speaker implies the opposite of the literal meaning of the words spoken or intends a completely different meaning.
- *Self-deprecating humour* involves the speaker directing the insult at themselves as a form of self-defence; they point out their own mistakes before others do. The effect is to create a positive image of the speaker, showing them as someone who can control a situation (Shcunef & Zajdman, 1995).
- *Anecdotal humour* involves stories expected to be amusing by the speaker, who may relate their own experiences or those of others; other speakers may add to the storyline.

Schnurr (2009) mentions that anecdotal humour may address different topics and include a moral or other types of humour in the story.

- *Fantasy humour* is the opposite of anecdotal humour because it tells imaginary stories. These stories may be based on real or imagined events, and several people often join in to construct the stories (Schnurr, 2009).
- *Wordplay* is 'any humorous statement in which the humour derives from the meaning, sound or ambiguities of words' (p. 79). People take advantage of the similarities and differences in words' meanings.
- Schnurr (2009), quotes Albertes (1992: p. 155), to define *teasing* as an utterance in which the speaker expresses 'a potentially insulting/aggressive comment but simultaneously provides/relies upon cues that the utterance is to be understood as playful/nonserious.' Teasing makes it easier for the speaker to reply to a face-threatening message in a playful manner. Koester (2010) notes that a teasing speaker directs their humorous utterances at others, making teasing the opposite of self-deprecation, which directs the utterances at the speaker themselves. In both types, the subject of the joke must be present.

While these forms of humour may seem to have the purpose of eliciting an amusing effect, some might result in negative outcomes. The outcome depends on the function of the humorous utterance in context.

2.7.3 Functions of humour

Researchers have noted that the function of humour goes beyond merely providing amusement. It may help in maintaining social cohesion among family members, friends or colleagues (Holems & Bres, 2012). Some serious functions of humour include enacting power, maintaining group rapport and enabling speakers to approach difficult topics using playful framing (Norrick, 2010). Since humour research began examining the workplace context, it has shown that the same functions are evident in workplace interactions (Holmes & Bres, 2012). Because my research focuses on a medical workplace, the functions of humour discussed in this section will be based on workplace research including medical contexts.

Although initially perceived as inappropriate for workplace communication because the workplace is associated with formality and seriousness, research has shown that humour is used extensively in workplace contexts (Mak, 2018). Vine (2020) argued that categorising humour as a form of social talk should not diminish its important role in the workplace. *Social talk* refers to

any conversation that is not work related and includes minimal greetings and small talk. Its use may help build solidarity among team members and create a positive atmosphere. Using social talk during a meeting that includes sensitive topics or in which disagreements arise, for example, may help defuse tensions while maintaining good relations with others. Using humour in the workplace may also help to create and maintain solidarity among colleagues, making them feel like part of a group (Holmes, 2000). When humour occurs in formal meetings about topics that are non-work related and lead to collaborative exchange sequence of humour within team members, it reinforces and build solidarity and work relations while providing a distraction from the meeting content (Holmes & Mara, 2002). The existence of humour wither in single instances or extended show that humour is accepted in meetings, especially if a figure of authority such as the chair of the meeting participate in humour and does not repress it (Holmes & Marra, 2002). Both humour and social talk can occur at the boundaries of interactions, considering how they both play a role in developing and sustaining relationships at work (Vine, 2020).

Researchers have shown a number of positive outcomes connected to the use of humour at work (Holmes, 2000; Koester, 2010; Taylor & Bain, 2003; Vine, 2020). For instance, people use humour to communicate face-threatening messages in an attempt to maintain good relations with their interlocutors (Taylor & Bain, 2003). Humour can also reduce the intensity of face-threatening acts, such as criticism and directives (Holmes, 2000). Some forms, such as playful teasing, help to defuse tensions in critical conversations (Koester, 2010). Other forms can mitigate negative news (Holmes,2006). An example of using humor as a mitigation strategy in medical contexts is given by Francis, Monahan, and Berger (1999). They interviewed medical professionals to understand why they used humor with their patients during serious discussions. The healthcare providers explained that using humor helps build rapport with patients and reduces the discomfort of discussing sensitive procedures. It also assists in breaking bad news. One doctor recounted telling a patient that he had good news and bad news: the bad news was that the patient had cancer, but the good news was that it was thyroid cancer, which has a 98% treatment success rate. However, the same study warned about the need for sensitivity and awareness when using humour, as it can be inappropriate if the patient is overwhelmed.

Another study by Chimbwete-Phiri and Schnurr (2017) examined counselling and educational talks with HIV/AIDS pregnant women in Malawi. The study revealed that counsellors used humour to approach sensitive topics and encourage women to participate in the discussion. These talks were crucial for helping women understand how to prevent the transmission of the disease from mother to child. For example, when one woman mentioned that sex is a way of

contracting HIV, the counsellor joked that they should not make sex the villain. This generated laughter and increased the flow of conversation, prompting more questions about the taboo subject of sex. The use of humour helped the counsellor share important knowledge and opened the floor for others to contribute to the conversation.

Humour can be used as a discursive resource to enact and maintain hierarchical power structures typical of organisations (Holmes, 2000; Holems,2006; Schnurr, 2009). This mostly occurs when it is initiated by those in higher positions (Vine, 2020). It has also been shown to be a valuable resource for negotiating power management in asymmetrical encounters since participants may use it to reduce members' status, enhance status differences or challenge authority and hierarchy (Holmes, 2000). Petraki and Ramayanti (2018) investigated ways in which male and female managers in Indonesia had utilized humour in their business meetings as a tool for exercising power while maintaining solidarity among members. Analysis of meeting transcripts involving 10 male and 10 female middle-level managers revealed the female managers made 60 humorous attempts, but the male managers made 32. The authors believe that this difference might be due to women in Indonesian cultures undertaking the responsibility of constructing good relationships with others. Staff members, when interviewed, thought that managers' use of humour helped create both working and personal relationships, lessening their fear of managers as well as the distance between staff and management. The use of humour also downgraded the tone of criticism, making it easier for employees to embrace the criticism. The meeting transcripts showed that male managers used wordplay, teasing and joking, all accepted by the staff, who respond to it. However, participants in the meetings used formal addresses, such as "sir," "madam," "Mr" and "Mrs," showing respect and deference to the hierarchy in the workplace. The female managers used humour for positive politeness, creating rapport and asserting their authoritative power. For instance, when teasing and joking went back and forth between the manager and staff, accompanied by laughter, the atmosphere relaxed, which helped the staff continue their meetings for longer. It also made it acceptable for the employees to contribute to the conversation. As for authority, mitigating the threat with humour while asserting power was evident in meetings with female managers. The authors believe that this strategy is used by female managers to establish and wield their power in a highly masculinized working context.

Humour is often used with new employees to help ease their socialisation into a workplace and to indicate that others are willing to accept them as new members (Koester, 2010). As newcomers respond to their colleagues' humour by accepting it, they indicate their willingness to

be part of the team. Failing to respond could reflect negatively on the newcomer and hinder their participation in conversations. Sharing humour at work may mark the boundaries of in-group vs. out-group members, which could be positive or negative, depending on the situation. According to Koester (2010), other positive attributes of humour in the workplace include the effects of bending official rules, which eases transactional procedures, decreases power differences when solving workplace issues, establishes good relations with others and facilitates the application of expertise. The effective use of humour is a skill that showcases the professional and interpersonal knowledge of the person using it.

Koester (2010) noted that humour can achieve various purposes when it occurs in transactional talk. It can be used to criticise others in a less face-threatening manner and can help people defend themselves against criticism. Self-deprecating humour helps people defend themselves when they doubt their ability to complete a job efficiently. In difficult and problematic situations, humour can defuse tension and awkwardness. Norrick (2010) added that when people share funny personal anecdotes, they do so to present a positive self-image. They understand that their stories involve a sense of humour that is favoured by many, showing that people can laugh at their problems and overcome them, which is considered an admirable trait. Such use of humour is likely to generate immediate cooperation from the participating audience. Norrick (2010) indicated that humour can play a part in building group rapport and identity. For instance, a joke aimed at a third party or outsiders can create rapport; members unite to express their aggression towards the outsider group, thus building solidarity among themselves.

Mak (2018) looked at using humour among colleagues in instant messaging and microblogging and believe that the informal nature of online communication opens the gate to the use of jokes with others, depending on the relationships among the participants. Humour helped decrease the feeling of being dehumanized by doing too much work on computers. Mak (2018) advocates future research into instances in which breaks in communication are caused by the use of humour on online platforms because societies differ in their methods of management and expectations of face acts. Asian cultures, for example, place high emphasis on working relations in ways that can both build and undermine working outcomes. Similarly, Koester (2010) advocates studying humour in different workplace settings to gain a comprehensive view of its role there, stressing that while humour exists in different working contexts, it is not universal.

Attardo (2020) highlighted that research has expanded to consider functions of humour that might not lead to positive results. Just as mutual humour can create harmony within groups, it can also exclude people as out-group members. This side of humour can disrupt the harmony

and safety of professional working settings. For example, Koester (2010) showed that sometimes co-workers can refuse to participate in humorous attempts. This can happen when, for example, the relationship between the speakers is not close enough. Humour might also be used as a cover for abuse. Plester et al. (2022) noted that consistent and continuous teasing in the workplace might be perceived as or lead to bullying. Sometimes, the phrase "just a joke" is used, which downplays the harmful effects of such humour. This makes it difficult for people receiving this type of humour to defend themselves because the use of humour as a form of abuse creates a false sense of safety to cover it up. Mak (2018) claims that innuendo and ironic humour can be used for personal attacks and even sexual harassment and warns against looking at humour as an invariably cheerful act. Humour can also cause harm when hostile teasing of newcomers is used to show superiority over them (Koester, 2010). Plester et al. (2022) reported that it is not easy for people to complain when the abuse is framed as humorous and if there are noticeable power differences among the participants, which makes it hard to avoid or confront harmful humour. Those who do so may be labelled uncooperative individuals and become distanced, which, in turn, might create the perception that they are not part of the team and lead to disadvantages. People may indicate their rejection of humorous attempts using non-verbal gestures, such as rolling the eyes, saying that they did not understand the joke or maintaining complete silence (Attardo, 2020).

Plester et al. (2022) provides an example of situations in which the use of humour disrupts harmony in the workplace. The study was based on an information technology company that was part of a workplace study to understand how humour can go wrong. Interviews with staff members revealed that they saw their superior's joking behaviour as humorous. However, the researchers did not. Interestingly, at the time of writing, the organisation was no longer in business. The ethnographic study included participant observation and in-depth interviews with staff. The 25-employee company was male dominated, with only three female staff members. Its notable feature was its fun culture, which was explicitly recognised by many members. Banter, jokes and pranks were constantly in use under the banner of acceptable workplace humour, with nothing being off limits—sexist, racist and homophobic encounters were all declared as humour. For example, Jake, the CEO, would sneak up behind staff members and suddenly shout through a megaphone to elicit jumps or even violent reactions from the staff, who would laugh, and then everybody would go back to work. When interviewed, some people acknowledged many of the behaviours as humorous, but some participants, unable to tolerate being subjected to harmful humour, indicated their intentions to find employment elsewhere. No one acknowledged that they were being

bullied; they wanted to be accepted as team members and could not complain because it was the CEO who was performing the ‘humorous’ utterances.

The authors argued that the co-workers’ desire to belong made them laugh and accept the jokes. Moreover, staff members on the receiving end of their boss’s humour could not retaliate because of the clear power difference. This made it difficult for the employees to challenge or object, and their only response was to use laughter as though it were the only accepted response to their situation. Those who could not tolerate the situation left the company and looked for jobs in other, more professional places. In this small company, acceptance was valued more highly than complaining about the situation. Through this study, Plester et al. (2022) showed that humour has the potential to harm others if it continually targets individuals or groups and when exercised over others by those in positions of power and control because it becomes difficult to challenge and refuse it.

The next study by Schnurr and Rowe (2008) explores how subversive humour functions in workplace email communication, particularly in academic settings. Subversive humour is a form of humour that challenges and critiques established norms, practices, and power structures within an organization. It often exaggerates and ridicules these norms to highlight their absurdities, allowing individuals, especially those in relatively powerful positions, to express dissent and frustration in a socially acceptable manner. This type of humour can redefine organizational reality by offering alternative interpretations and making previously unquestioned practices visible for criticism and potential change. Drawing on a corpus of over 100 emails collected from a senior academic in Hong Kong, the authors demonstrate how humour, particularly when used subversively, can serve as a strategic tool to question organisational norms and voice dissent.

The paper focuses on Richard, a senior academic staff member at a Hong Kong university, who uses humour to critique bureaucratic norms and express dissatisfaction with administrative processes. Through elaborate metaphors and light-hearted exchanges with colleagues, he challenges the official narratives of organisational efficiency. For example, in one instance, he ironically refers to his department as the "School of Letters and Modular Kitchenware Design" (p. 125), mocking administrative discussions about merging departments. This humorous title critiques the absurdity of such decisions while still relaying important information.

Schnurr and Rowe (2008) also acknowledge the darker side of humour, where it becomes a means of expressing dissatisfaction and resisting authority without direct confrontation. Subversive humour in this context allows individuals to vent frustration while maintaining social

order, functioning both as a mechanism of control and resistance. This dual function highlights the strategic and complex role that humour plays in navigating power dynamics within institutional settings.

Humour depends on the people using it and their relationships with each other. It is not used in the same way everywhere but depends on the culture of the people involved (Vine, 2020). Taking this into consideration, along with the fact that humour in the workplace is bound by context and that contextual and linguistic cues are important in identifying instances of humour (Holmes, 2005), there is a need to investigate humour in different professional settings. Avoiding mismatches in communication while using workplace humour begins with understanding it through the lens of ethnographic research, which explores it in its natural settings firsthand. Workplace culture is built on the knowledge and experiences that co-workers have with each other, which helps them function together effectively as they set boundaries for being more or less formal in their interactions (Holmes & Stubbe, 2014). The relationship between participants and the goal of the interaction also determines when and how humour emerges within working contexts. When humorous utterances are used, they have different forms, each with its own function.

Similarly, Attardo (2020) highlighted that the amount of humour and the way it is used in the workplace are culturally dependent, varying from one establishment to another, so that its contribution to the workplace setting depends on the cultural context of the situation. This has been evidenced by Murata (2014) reported on the use of humour in the context of workplace meetings in companies located in New Zealand and Japan. In the New Zealand companies, everybody in the meeting joined in with humorous conversations, but in the Japanese setting, only high-ranking members, such as the chair of the meeting, initiated humour. In Japanese context, humour was initiated by those in higher statues such as the CEO or the chairperson, which reinforced their power relationship with others. This shows that the way humour is used is not universal, and understanding the differences in how and why people use it may help avoid complications that could arise from its misuse.

Exploring the context of a medical setting, Attardo (2020) provided three insights. First, the use of humour can help medical professionals deal with the stress of their jobs when they need to navigate difficult topics and situations with their patients. Second, the high degree of hierarchy and power differentials in the medical setting is reflected by the positions of those using humour. For instance, doctors' laughter is reciprocated more often by their patients and not the other way round. Third, humour may help patients by giving them opportunities to express their thoughts

and feelings. When patients utilise humour, it may help them discuss sensitive, troubling or embarrassing issues related to their illness.

Research on humour in medical contexts has revealed that it is used among cancer patients to cope with their illness, build solidarity, and establish supportive relationship with one another (Baxter, 2018; Demjen, 2016). Humour is also used between patients and doctors to facilitate and address serious issues and overcome interactional difficulties during consultations (Beach & Prickett, 2017; Buiting et al., 2020). Including these studies in my research is vital since they provide data on cancer patients. This is especially relevant to my research since all of the collected data was obtained from the haematology department, which focuses on cancer discussions. Although the discussions were understandably serious due to the nature of the patients being treated, humour was still evident in the collected data. Research has been conducted on communication in hospitals due to its critical nature, centred on taking care of patients, which necessitates effective communication among staff members and patients for positive healthcare outcomes. Despite the serious nature of healthcare work and the life/death decisions that healthcare professionals need to make often on regular basis, as research has shown medical context are not devoid of humour.

Buiting et al. (2020) examined the use of humour between patients with prolonged incurable cancer and medical professionals (doctors and clinicians). While their study relied on questionnaires, observation and in-depth interviews without resorting to methods of discourse analysis, the ethnographical nature of their data provided insights into the use of humour and laughter in difficult consultations. The questionnaires were answered by 34 medical professionals, who were oncologists, oncology surgeons and nurse practitioners at a cancer hospital. The results revealed that 97% used humour with their patients during consultations, 94% said that humour was initiated by the patients, and 74% described using humour with their colleagues. The in-depth interviews with the patients revealed that their use of humour enabled them to have difficult discussions with their doctors. Interviews were also conducted with the bereaved relatives of some of the patients in the study. One of these bereaved participants expressed that the sharing of humour between the doctors and the patient (their relative) had made the patient more willing to listen and follow the doctor's recommendations. Humour and laughter did not occur in some of the consultations. When the patients were asked about it, some expressed that they were too overwhelmed to engage in humorous encounters. Others believed that it was not the time or place to joke or laugh, as humour could be different from one person to another. Interestingly, the

observations revealed that humour was mostly initiated by patients, and they shared it with family members who accompanied them during consultations.

Beach and Prickett (2017) examined how cancer patients initiated humour and laughter with their doctors and how doctors responded. The study used transcribed samples of video-recorded interviews between oncology patients and their doctors. The results revealed that it was the patients who mostly used humour and laughter. When patients used humour and laughter as they talked about their circumstances, doctors did not always respond to the humour or share the laughter with them. Doctors refrain from laughing so that they could demonstrate their focus on their patients' health issues. For example, one doctor asked a recovering cancer patent if she was having any issues. Her response was only thyroid issues, and she laughed about it. The doctor did not respond to the laughter and continued asking questions. This example shows how cancer patients in this study used humour to minimise their fears of cancer and address serious issues.

There were other moments when doctors responded to attempts at humour, but it was in situations where the conversation was about life and not about health concerns. In one example, a doctor asked his 81-year-old patient if he had any questions, and the patient asked if he could meet a rich widow. The doctor laughed in response, and this laughter was accompanied by the subject of discussion being terminated and the conversation shifting to another medical subject. The study also showed instances of the doctors sharing laughter that was not humorous. In these instances, it was expressed at times when doctors were dissatisfied with patients' efforts to take care of their wellbeing but without expressing disapproval or direct criticism. The study concluded that cancer patients use humour and laughter to minimise their fears of cancer and manage delicate or troubling topics. When doctors did not join in the laughter or attempts at humour, they demonstrated their focus on the serious issues under discussion. It showed asymmetry of power as the doctors shifted their attention towards deep discussions of the issues with the patients. The authors called for more studies on the role of humour and laughter in cancer wards as they believed it would provide examples for future doctors on how to pursue their agendas with their patients without being overtly serious and better engage with them. They concluded that humour and laughter were evident in the oncology data as a vehicle for patients to express their various social and health concerns.

The studies cited above demonstrate that amusement is not the only reason for using humour and that it is necessary to carefully examine the other functions of including humour in non-humorous and serious situations. Existing studies lack a focus on doctor-to-doctor interactions and require more research in EFL contexts. To date, most of the literature tends to

focus on doctors-patient interactions. As humour is usually accompanied by laughter, the next sections will examine laughter to gain insights into its functions and determine whether it is used for amusement or other purposes.

2.7.4 Laughter

When humour is used, there is a general expectation that its reaction will be laughter, and indeed laughter is seen as a signal indicating that an utterance has been interpreted as humorous. Laughter is viewed mostly as a valuable social phenomenon due to its association with having a good time or bonding socially with others (Haakana, 2010). According to Trouvain and Truong (2017: p.343), 'laughter is a non-verbal phonetic activity that usually occurs in conversational interaction with an interlocutor'. Jefferson et al. (1987) noted that laughter can take the form of adjacency pairs. An example of this is a greeting–return greeting adjacency pair. The first laugh can be an invitation that is accepted by the recipients as they produce a laughter sequence in response (Jefferson, 1979). Because laughter can take various phonetic forms, there are different ways in which it is transcribed (Trouvain & Truong 2017). For instance, it could be transcribed in words or word-like units, such as 'haha' or 'hehe', so that it represents two syllables. It could also be written as (laughs). Butler (2015) addressed that there is a complexity of laughter as a response by identifying it as 'collective and corrective'—someone initiating laughter may do so to rectify the 'overly rigid behaviour' (p. 43) of the person being laughed at. Attardo (2015) reported that when people laugh, it may be a spontaneous, uncontrolled or voluntary reaction. Thus, when speakers use laughter, it may express various functions.

When laughter occurs in a conversation, it may be strategically placed to accomplish pragmatic functions such as accomplishing social goals, managing conversations, indicating emotions, expressing agreement or disagreement (Hanks & Egbert, 2022; Holt, 2010; Trouvain & Truong, 2017). The social function of laughter occurs in situations where it is mutual because it may create a form of social bonding, indicate affiliation or create a positive atmosphere (Trouvain & Truong, 2017). On the other hand, someone whose laughter is not reciprocated may anticipate or fear a problematic action from their interlocutor (Sacks, 1992). Laughter can also help manage conversational flow, as Holt (2010) observed in dyadic interactions. In such interactions, laughter's role may be to precede the introduction of new topics, making it a cue that a topic has reached its termination.

Glenn (2006) challenges the common perception of laughter as merely a response to humour, emphasizing instead its broader functions in social interaction. Laughter, according to

Glenn (2006), is a complex communicative tool that extends beyond amusement and plays a critical role in managing interpersonal dynamics. It can serve to ease tension, build rapport, and maintain social bonds, even in serious or emotionally charged contexts. In this way, laughter functions as a social lubricant, helping participants navigate conversations that might otherwise feel uncomfortable or strained.

Glenn (2006) explains that one of the key roles of non-humorous laughter is to act as a "normalizing device," creating emotional distance from the gravity of a topic without dismissing its seriousness. For instance, when someone recounts a paranormal experience, they may laugh to acknowledge the strangeness or emotional weight of the situation. This not only softens the impact for themselves but also makes the topic more accessible for others, encouraging engagement rather than avoidance. In therapeutic settings, this function becomes especially evident. A patient discussing depression might describe the difficulty of completing simple tasks and follow it with a light chuckle "I mean, who knew getting out of bed could be such a workout?" This laughter helps to normalize the conversation, reduce discomfort, and signal openness, while also making the emotional content easier to process for both patient and therapist. The therapist's smile or reciprocal laughter, in turn, reinforces a safe and supportive environment for emotional disclosure.

Glenn (2006) also introduces the distinction between "laughing with" and "laughing at," highlighting the different emotional and relational consequences each creates. Laughing with others fosters connection, shared understanding, and affiliation. It strengthens group cohesion and promotes a sense of mutual enjoyment. By contrast, laughing at someone often implies ridicule or superiority, potentially leading to discomfort, exclusion, or social tension. These dynamics reveal how laughter can either enhance or undermine relational harmony depending on its direction and intent. Understanding this distinction is crucial for analyzing social interaction, as it shapes the emotional climate of conversation and directly influences the quality of interpersonal relationships.

Laughter can also express emotions (Hanks & Egbert, 2022). For instance, speakers may use it to express their disbelief or surprise at the news that they have been given. It can express tension and stress after statements about certain issues such as when the speaker talks about something that worries him/her and laughs. Listeners may use laughter to react to self-deprecating or trouble-telling stories to assuage the speaker because their laughter suggests that they do not believe that the situation is as bad as the speaker believes it is. Trouvain and Truong (2017) noted that the production of laughter is not limited to humour, as people also laugh for other reasons. It can be a sign of a positive surprise, nervousness or unwillingness to take something seriously, and

it can serve as a face-threatening action. For example, people may use laughter to deflect answering questions, a strategy sometimes used by politicians (Ginzburg et al., 2020).

Hanks and Egbert (2022) reported on how laughter can function to indicate agreement or disagreement. It expresses support and agreement, which is usually accompanied by words such as 'yeah', 'right' and 'trust me'. It can also be used in a conflict to signal initial agreement, followed by disagreement. In such a way, it shows affiliation and partial agreement with the other person while cautiously cuing that a disagreement will be expressed next. During arguments, using laughter after hearing others' statements mostly expresses disaffiliation/disagreement with the laughing person. Speakers may use laughter when disagreeing because they wish to maintain a friendly and supportive discourse, even if they disagree. So, laughter can function as a conversational smoother.

Similarly, Du's (2022) revealed how laughter is used as a discourse resource during meetings that address conflicts to show affiliation and disaffiliation. The data focus on a recorded meeting from a Chinese training organisation in which the aim was to solve tension and conflict related to work between international staff (from Canada and the United States) and Chinese staff. The Chinese staff were the CEO and administrators, while the international staff were managing some of the Chinese teaching staff at the company. During the meeting, Vincent, one of the international staff members, was not pleased by comments made by the Chinese CEO and managers related to how the international staff should cooperate and communicate with the Chinese teaching staff. Vincent replied by criticising the Chinese staff as not listening to his repeated recommendations. Then, the other international staff member, Jack, made comments supporting Vincent. Vincent laughed in response and Jack joined him by laughing too. Jack was 'laughing with' Vincent to celebrate proving their point and show his alignment with Vincent. This study showed that laughter plays a crucial role in revealing alignment or disaffiliation with others, without the need to use verbal communication in a diverse working context.

Hanks and Egbert (2022) reported that laughter can have more than one pragmatical function in a given situation and provided an example of this in the context of advice giving. Laughter may indicate the superiority of the speaker when used after a statement for which the speaker believe that their opinion is the best option. The receiver of the advice may use laughter to show their humility and agreement as they accept the advice. Hank and Egbert (2022) concluded that understanding the function of laughter is important because it can help in interpreting contexts that include cross-cultural communication and assist in developing pedagogical materials based on the awareness of why laughter occurs and how it functions in

conversations. Knowing the function helps in understanding how spoken communication unfolds when laughter is used.

Since my current research focuses on workplace context, the following studies reveal functions of laughter within various working settings, such as educational, office, and medical settings. Even though medical contexts are the main focus of my research, I included studies from educational settings because they represent another form of workplace setting and provide insights into the role of humour in spoken interaction. Medical research on laughter is still underrepresented and relies mostly on doctor-patient communication. In contrast, my research is centred on doctor-to-doctor commination. Therefore, including insights form other professional settings will provide valuable information of how laughter effects spoken communication between peers. Workplace research has revealed several functions of laughter, including using laughter to indicate miscommunication, mitigate threats and criticism, relive tension, build rapport, and overcome interactional difficulties (Matsumoto, 2018; Mezek, 2018; Nesi, 2012; Zayts & Schnurr, 2011).

Matsumoto (2018) examined how laughter was used as an interactional resource in an ELF university classroom when students encountered miscommunication. The participants were international students taking an academic writing class at a United States university. The analysis of the video recordings of the classes revealed that laughter was used to serve two functions. Laughter was used by students to mark their nonunderstanding, which helped the teacher pay attention and resolve the miscommunication. For instance, when the teacher asked a question about why people in China cannot change the one-child policy even though they dislike it, one student began to give an answer, laughed, gave an answer and laughed some more. The repeated laughter signalled the difficulty that the student had with the question. The teacher responded by smiling to indicate his understanding of the student's issue and providing further explanation.

The other function of laughter was to build in-group solidarity when the students shared laughter with each other. An example of this is when a teacher misunderstood a student, and both took turns to clear up the misunderstanding. After the issue was resolved, students of the same nationality as the student with the issue started laughing about it with him. Other students of different nationalities did not laugh with them, which made their laughter a marker of membership in their in-group. These students built rapport as they shared laughter together. However, the author noted that while laughter was a sign of miscommunication or misunderstanding, it did not contribute to resolving subsequent issues that arose. The author commented on how the teacher was confused when the students shared laughter with each other, which could have gotten them

into trouble if the teacher thought they were laughing at her misunderstanding of their friend, and called for more studies that would look into situations in which laughter is confusing for interlocuters. This study shows that in an EFL teaching context, laughter functioned as a way to express confusion and misunderstanding, including or excluding others.

Similarly, Mezek (2018) investigated how laughter was used in PhD defences at two Swedish universities. The data included a corpus of nine defences, which were audio and video recorded. The participants (PhD students and examiners) used EFL as they all had first languages other than English. The defence fields included natural sciences, social sciences, engineering and humanities. The results revealed that when laughter was self-initiated, it was by those in higher status positions, such as the chair, examiner and committee members, who produced it 80% of the time. This laughter served the function of pre-empting criticism or differing opinions. Laughter was followed by evaluation, criticism or requests for more details or explanations after hearing the PhD's answers to previous questions. In particular, 60% of this laughter served to indicate that evaluation, further questions or requests for clarification would follow, which all constituted face-threatening actions to the candidates.

Using laughter helped mitigate threats and obtain answers. An example of this is when an examiner commented on the extensive bibliography of a student, laughed and then added that it still contained some minor gaps. When candidates initiated laughter, 64% of the time, it was connected to face-threatening acts as well. They used laughter with their responses to questions and criticisms, evaluations of the questions they had received and when misunderstanding or showing insecurity. While the examiners used laughter to mitigate the face-threatening act towards the students, the students used it as a threat towards themselves, not the examiners, because they had to have knowledge of the information they were asked about. This marks this form of laughter as non-humorous.

When shared laughter occurred, 75% of it was by the candidates with examiners or committee members. It served a similar function as the self-initiated laughter, mitigating the same face-threatening acts, and overall, it constituted a smaller percentage of the data (7%). However, this form of laughter was also used as a response to a humorous remark made by the examiner. The author noted that the humorous remarks in this study were related to academic research and subject matters that were of interest to all the people in attendance. This humour aimed to alleviate awkwardness and stress in different parts of the defence while establishing a sense of community among the people in the room. Humorous attempts and laughter that were initiated by the examiners showed their humanity and mitigated harshness, as they had to show their expertise

and criticality with the students as part of their job and help the students accept the criticism. Mezek (2018) concluded that in such high-stakes interactions, the candidates utilised the pragmatic knowledge of laughter to communicate and show their expertise and knowledge throughout the defence, which showed that laughter is important in ELF interactions in such situations.

Nesi (2012) investigated laughter in academic lectures to discover the reasons for and functions of this phenomenon in this particular context. The data for the study came from the British Academic Spoken English (BASE) corpus, which had collected more than one and a half million words from lectures and seminars within the fields of Arts and Humanities, Life and Medical Science, Physical Science and Social Studies and Sciences. Focusing on data taken from medical lectures, Nesi's (2012) study revealed six reasons for laughter: teasing, mentioning lecturer error, self-deprecation, black humour, disparagement and wordplay. They served the following functions: to help maintain social order, build rapport, relieve tension and model academic and professional identities.

The first form of laughter, lecturer–student teasing, was used by the lecturer as a means of social control. For instance, in one medical lecture transcript, the lecturer, laughing as they do so, teases a student for coming late to class and attributing this lateness to excessive partying and drinking. The second form of laughter took place to release the strain the lecturer felt when their competence face is under threat. When the lecturer made a mistake, they, as well as the students, could laugh about it to release tension, using the laughter as a signal for the students to take the occurrence lightly and laugh with the lecturer about it. Here, laughter functioned as a means of getting the students' sympathy, while implying that this was an exception to the lecturer's usual professional behaviour. The third use of laughter was associated with moments of self-deprecation. For example, Nesi had shown that laughter followed when the lecturer made a self-deprecating comment about their own age. In this case, laughter functioned to present the lecturer to be a modest and approachable person and to demonstrate the existence of social bonds between the lecturer and the students.

The fourth use of laughter could be described as "black humour." In these situations, the lecturer was shown to laugh at the way in which medical students would deal with taboo subjects, such as treating people with sexually transmitted diseases. The lecturer advised the students to start inserting their fingers in people's bottoms as soon as they begin working at hospitals to get used to the procedure, which induced laughter from the lecture. The students as the lecturer moved on to tell them that this is a procedure that they all need to go through. By making fun of a situation

that the students will have to face when they become professionals, the lecturer manages the embarrassment, which the situation might induce, while helping the students understand and reinforce their professional identity. The fifth use of laughter had been shown in the disparagement of out-group members. In this situation, the lecturer shared an anecdote of a medical situation while criticizing the medical professionals' behaviour, identifying the critiqued medics as an outsider group. This signalled to the students that they were the insider group and functioned as a means to increase group solidarity. The last use came after wordplay, where laughter's function was to make the students feel superior and smarter. For instance, the lecturer used the word 'screening' which could mean filtering people or data or refer to playing a film (on a screen) as they joked with the students. The lecturer was teaching the students about the use of screening questions and told them that if a regular person asked them on the streets if they have been to a screening (a film), they would answer no since they would associate the word with their professional use of it rather than entertainment. The use of word play in the example had separated the students from regular people as it makes them appear smarter and professional.

The next study focuses on laughter in a medical setting by Zayts and Schnurr (2011), who looked at the function of laughter in prenatal genetic counselling. In a Hong Kong hospital, Chinese doctors counselling pregnant Filipina patients use English as a lingua franca to discuss the options of medical tests that determine foetal health. The results of the study revealed that doctors used laughter to overcome interactional difficulties when the patients refused to receive information about genetic testing. Because a refusal would cause difficulties for the doctors to give medical information, the doctors laughed it off to showcase their disapproval and as a means to continue with their agenda of giving the complete picture of the medical situation. The doctors also used laughter when patients asked them directly about what they should do, using it to reflect their reluctance to give their own opinions and thus give patients more time to make their own decisions. They mostly resorted to laughter after patients have refused treatment or resisted hearing information about the tests. They use it to overcome patient's resistance and continue to give the information.

In this last study, Macqueen et al. (2023) examines laughter as an expression of emotion during clinician-patient interactions in the Emergency Departments (Eds) in Australia. Laughter was sued most frequently between patients and nurses and the family members accompanying the patient. Laughter is used as a cue to signal serious matters during the visits. For instance, a male patient in his fifties came to the ER with heart failure. As the doctors asked him if he smoked, he laughed and made fun of having his last cigarette prior to this visit. By using laughter, the patient

makes light of this serious issue, smoking, that has a significant effect on his medical condition. Laughter was also used to build rapport and empathy between the patient and the nurse as it validated the difficulties that the patient was having during the visit. Laughter was produced the most by patients than the medical staff. It was used in this study to foster a collaborative patient-centred relationship interaction and a conscious response during difficult circumstances to reduce the fae-threat of medical procedures. When laughter fostered a collaborative interaction between patients and nursing staff, it helps in building rapport and showing empathy with patients.

The studies demonstrate that laughter occurs in both humours and non-humours situations and serve various functions, particularly in high-stakes situations. Since my research is based on medical settings, which are high-stakes and sensitive environments, it is crucial to analyse the situations in which laughter is used and determine whether it serves similar or different functions. It is also important to determine why participants resorted to using laughter.

2.8 Research Gaps and Research Questions

Despite existing research on DM in workplace settings, particularly in medical environments, there is a significant gap in understanding DM as a distinct interactional genre within multilingual and multicultural healthcare contexts, especially in Saudi hospitals. Current studies primarily focus on DM strategies and the importance of mutual understanding and collaboration, mainly in doctor-patient settings. While the importance of mutual understanding and collaboration cannot be underestimated, little is known how these rather abstract concepts are enacted in professional contexts. Exploring empirically the actual talk and the discursive resources used to perform collaboration, reaching consensus etc., can help us understand the essential role of language and para-linguistic devices in critical interactions as those involving decision making in medical contexts. Furthermore, research examining doctor-doctor DM and collaboration is scarce and often excludes contexts where English is the language of professional medical communication in non-English speaking contexts. These studies frequently overlook unique discursive resources employed by healthcare professionals in linguistically diverse environments. Therefore, much of the existing research remains largely theoretical or conceptual, and disconnected from the interactional realities of the actual and often multilingual practices that healthcare professionals perform and need to perform in their daily diverse working environments.

This disconnection is a critical issue especially when we take into consideration hospitals such as those in Saudi Arabia, which are environments with high degrees of linguistic and cultural diversity (Alhumaima, 2020b). Research on Saudi medical graduates tends to be generic, often

criticizing their underdeveloped English proficiency without specifying the exact needs that are missing or what the workplace context expects graduates to perform. While proficiency in English is important to perform the job of a medical doctor in a context in which English is the medium of PMC, it is also important to understand that professionals bring a diversity of linguistic repertoires as well as other verbal resources to a context and will be utilising those when needed. Understanding this aspect is vital for medical professionals, especially those who just entered or soon will be entering the medical professional as it may help them navigate the complex linguistic demands of medical settings.

With DM being one of the most important and regular events in medical practice normally performed through language and other verbal devices, it presents a relevant object of study to understand interactional and linguistic demands of critical interactional events in increasingly multilingual healthcare. By analysing a set of authentic decision-making interactions recorded in a Saudi hospital, this study aims to examine how and what kind of discursive resources established medical professionals employ in such critical interactional events, and how they manage the demands of the task (decision making) and of the linguistically diverse situation.

By investigating the DM process as a genre, this study seeks to identify patterns, moves, and steps characterizing DM in a multilingual medical setting. A genre-based approach may help in developing targeted lesson plans that can help improve the effectiveness of medical communication, reduce misunderstandings, raise awareness of and utilise linguistic diversity as a valuable resource rather than an obstacle, and improve overall DM outcomes. Medical professionals, especially in high-risk settings like oncology, need to understand how the DM genre operates, particularly when decisions must be reached as a team. Understanding the dynamics of the genre and its discursive resources is crucial for fostering effective collaboration and ensuring team members can contribute their expertise effectively, thereby guaranteeing better patient care outcomes. This research will combine CA, GA and IS to achieve its objectives.

Genre Analysis is ideal for this study to identify and describe the rhetorical structure and linguistic realisations of decision-making sequences in clinical team meetings. It is used to trace the stages of decision-making, such as identifying a clinical problem, proposing solutions, evaluating options, and reaching a decision. These stages are examined as distinct moves within the genre, allowing a clearer understanding of how decisions unfold structurally over time. Particular attention is also given to the linguistic features that mark these moves, such as hedging and evaluative expressions, which reveal how team members signal certainty, uncertainty, disagreement, or alignment. This dual focus on structural and linguistic patterns helps uncover

how clinical decision-making is shaped by institutional roles, interprofessional norms, and interactional dynamics. This focus is not only analytical but also pedagogical, as the study aims to contribute insights that can inform English language instruction in medical universities in Saudi Arabia. By identifying the rhetorical and linguistic features of real-world clinical decision-making, the study offers practical value for curriculum designers and language educators seeking to better prepare future healthcare professionals for the communicative demands of team-based medical practice in English.

IS is used to explore how meaning is constructed in real time clinical talk through specific contextual features. This study focuses on two key aspects of IS: contextualisation cues and framing. Contextualisation cues such as code switching, pauses, and laughter are examined to understand how speakers signal affect, alignment, and stance during clinical discussions. These cues help reveal how emotions, uncertainty, and power relations are communicated and interpreted within the team.

The study also draws on the concept of framing to show how participants interpret the nature of the interaction, such as whether a speaker is giving a clinical update, raising a concern, or making a joke, and how knowledge schemas, including background assumptions and expectations about people, events, or institutional norms, shape their responses. IS provides tools to analyse how medical professionals construct shared understanding, manage relationships, and negotiate institutional roles in decision making talk. It also draws on the participants' backgrounds to explain how they use language and experience to negotiate clinical

In this study, conventions of CA is used to examine how paralinguistic features contribute to the organisation of clinical decision-making talk. The analysis focuses on pauses, overlaps, intonation, and laughter as key elements that shape interaction. These features are used to identify how participants signal hesitation, agreement, disagreement, or emotional stance. For example, laughter can serve to ease tension or soften disagreement, while pauses and changes in intonation can indicate uncertainty, reflection, or emphasis. Overlaps may reflect urgency, alignment, or competition for the floor. By attending to these paralinguistic cues, CA helps reveal how interactional dynamics unfold in real time and how emotional and epistemic stances are negotiated during clinical decision-making.

Investigating DM as a genre in a multilingual Saudi hospital will fill the gap in current research by answering the following questions:

1- What are the prominent genre features of doctor-doctor decision-making in a context that uses English as a medium of PMC?
2- What are the prominent discursive resources that doctors employ in interactions that aim to reach a decision in a context that uses English as a medium of PMC?
3- Based on the results from RQ1 and RQ2, what are the pedagogical implications for improving doctor-doctor decision-making in contexts where English is used as the medium of PMC?

The next chapter will discuss the methodology utilized in this research to answer these research questions.

CHAPTER THREE: Research Methodology

In this chapter, I will detail the research approaches and methods used for the purpose of this research. First, I will present an overview of each approach, followed by an explanation of the benefits of combining these approaches to develop a multimethod framework for analysing and understanding decision making practices within the context of doctor-doctor team meetings in a multilingual and multicultural hospital. This will be complemented by a description of the data collection procedures, an exploration of the researcher's positionality, and an outline of how each chapter was analysed.

3.1 Genre analysis (GA)

This research is concerned with exploring doctor-doctor communication by taking as an example doctor-doctor meetings whose main goal was to reach treatment decisions. Because doctor-doctor meetings constitute a firm part of doctors' everyday communicative events performed routinely in hospitals, they can give us unique and first-hand insights into how doctors make decisions in complex medical settings. Doctor-doctor meetings as part of communicative professional routines in hospitals constitute an important professional genre. For this reason, insights from genre analysis are utilised in this research to understand how these meetings are structured and what functions and purposes the structures convey and how decision making is embedded in this genre.

According to Bhatia (2014), genre analysis (GA) offers valuable insights into professional practices in professional communication contexts. GA can describe spoken professional interactions by identifying the distinguishing features of specific professional interaction types (Koester & Handford, 2012). Genre is defined as 'a kind or type of text' (Joens et al., 2020:14), highlighting its role in distinguishing text features, such as those found in novels or biographies. GA is based on the work by John Swales (1990) and Vijay Bhatia (1993), which begins with the assumption that texts are purposefully designed for specific audiences and possess particular structural and content elements. An important aspect of GA is its capacity to elucidate the purpose or reason behind producing a text within a genre. For example, Flowerdew (2011) give examples of communicative events that represent genres in applied linguistics, such as business reports and academic research articles.

GA can be conducted via a move-structure analysis, which aims to identify parts of the text serving distinct rhetorical functions (Trady & Swales,2014). This analysis has two main

components: moves and steps. Moves refer to the functional units of a text that form its rhetorical structure (Swales, 1990). Moves are the core functional component, because they contribute to the overall communicative purpose (Bhatia, 1993). As for steps, they are smaller units that are part of forming the moves, and they provide details of how the communicative purpose of the moves is achieved (Swales, 1990). Steps help to understand how each move is constructed and how it achieves its communicative function (Bhatia, 1993). Researchers begin by analysing a genre-related corpus multiple times to identify general patterns and develop initial move categories. They then determine whether the moves are obligatory or optional and their expected sequence. These moves are detailed further into steps, representing smaller communicative functions within each move. Trady and Swales (2014) note that genres, as situated forms of discourse, are shaped by the communities and contexts in which they are used and, in turn, influence these communities. These communities—referred to as discourse communities, communities of practice, speech communities, or disciplines—develop and adapt genres to meet their needs and reflect their values, beliefs, and shared knowledge. Users can recognize genres based on formal features such as language, structure, topics, and presentation styles. Additionally, genres mirror the social dynamics of their user groups, including power relations, which can marginalize those unfamiliar with their norms or lacking preferred resources.

Doctor-doctor meetings are an ideal representation of a genre. Based on the collected data, the meetings followed a specific structure in how they started and ended, which was repeated several times in each meeting as patients were discussed. Specific language was detected in the moves, such as using ‘my next patient’ to signal that the discussion is moving to another patient. The meetings had a communicative purpose: to make decisions. This point is not only based on the analysis of the transcription, but also corroborated by an interview with a doctor who mentioned explicitly ‘we discuss the conflicting cases that need a multidisciplinary meeting requiring multiple specialties to discuss these cases to make a decision, right?’. Using GA is appropriate for understanding how doctors reach a decision, a critical meeting function in healthcare that is not represented in research on medical teams. The analysis will inform how doctors in teams in a setting that relies on communication interact with each other and provide an authentic representation of moves and steps based on their specific context. The doctors come from various linguistic and educational backgrounds, despite being Arabic speakers, which affect how they would jointly form this genre. Using GA in doctor-doctor decision making meetings is a research gap that this thesis aims to fill.

3.2 Conversation analysis (CA)

The current study aims to investigate the communication between doctors in their meetings as they make decisions about their patients. Such meetings are filled with elaborate information, as expected in a hospital context, and extended or short discussions that lead to making a decision. This poses a research interest in how doctors use their language and other verbal resources such as laughter as they interact with each other and what sort of linguistic features they rely on to reach a successful communication that serves the purpose of a decision in favour of helping patients. This is why CA is helpful as it would give a detailed analysis of how doctors jointly converse with each other by looking at repeated patterns that doctors relied on as they delved deeper in their negotiations and dissuasions. CA is a method developed by Harvey Sacks (1995) in collaboration with Emanuel Schegloff and Gail Jefferson. CA meticulously examines the details of everyday spoken interactions. It uses fine-grained analysis to understand how people manage their conversations, the role of spoken discourse in developing social relations, and how social worlds are constructed as speakers engage in conversational discourse (Paltridge, 2012).

According to Paltridge (2012), CA focuses on naturally occurring conversations as the primary data source. The analyst, therefore, excludes other sources such as field notes or observations, relying solely on the text analysis for explanations of the produced conversations without making preliminary assumptions about the analytical categories. Instead, analysts identify and focus on phenomena that occur regularly within the data to initiate the analysis. The aim is to explore how participants produce and respond to their social context through conversation. The data is typically recorded via tape or video, allowing analysts to replay the recordings multiple times to thoroughly examine the data. This method of recording captures real-time social events, which are essential for accurate analysis (Clayman & Gill, 2012).

The transcription of this data is a critical part of the analysis (Paltridge, 2012). Transcribed data is written using transcription conventions developed by Gail Jefferson (1984). These conventions serve two main objectives: first, to represent talk precisely as it is produced, using transcription keys to denote spoken features such as pauses and interruptions (e.g., (0.1) for timed pauses); second, to produce a transcript that is easily readable by a general audience, using standard orthography instead of a phonological system (Clayman & Gill, 2012). After transcription, Paltridge (2012) outlines the subsequent steps in the analysis. Analysts examine the sequences and structures of the conversation, focusing on interaction features such as openings, closings, turn-taking, and adjacency pairs. Analysts also examine how each participant manages

their interaction through turn-taking, such as using a falling intonation to indicate the completion of a turn.

Additionally, Clayman and Gill (2012) explain that analysts scrutinize interactional activities within the conversations and highlights specific interaction sequences like question/answer or news delivery, examining how actions are performed within these sequences and identifying features associated with the activity, such as lexical choices or non-verbal behaviours. Analysts may also focus on specific actions related to the context of the data, such as giving advice, challenging them to extend beyond the existing knowledge about these actions. Paltridge (2012) also points out that CA is sometimes criticized for its reliance on a single data source, which could limit the scope of the analysis by excluding other data that might justify the analytical claims. This limitation has led to suggestions that CA should be combined with other methods, such as ethnographic approaches, to strengthen the interpretations and justifications of the findings.

3.3 Interactional Sociolinguistics (IS)

The context of this study is unique because the participants were from various backgrounds. Such differences might affect how doctors communicate with each other during their meetings. However, the literature does not include studies that have incorporated the effect of differences among doctors in meetings that lead to decision-making. Therefore, it became important to include a method that would provide details about the context of this study to help explain and corroborate the findings. The method chosen was interactional sociolinguistics (IS). Vine (2020) describes IS as a discourse analysis approach that focuses on analysing authentic interactional data, taking into account broader contextual factors such as the diversity of speakers and how they utilize this diversity during conversations. Developed by Gumpez (1982), this theoretical framework can provide valuable insights into workplace communication, for example doctor-doctor meetings in hospitals and show how some discursive strategies such as, for example, humour is used at work. Vine et al. (2008) elaborate on the benefits of IS in workplace research. IS takes advantage of contextual information about interactions and employs analytical tools such as ethnographic observation and interviews to elucidate participants' construction and negotiation of meaning in conversation. According to Gumperz (2015), IS interprets the intended meanings in conversations by relying on knowledge of the situation and the discourse itself, rather than focusing solely on grammar and lexicon.

IS analysis is reflexive because it considers all parts of the conversation as a reaction to something mentioned before or after spoken utterances (Gumprez, 20015). The analysis looks into any signs used by the speaker that would construct a contextual ground for interpretation and affect how the message would be interpreted; such signs are called contextualization cues. Gumperz (2015) notes that the contextualization strategies people employ are revealed through a close examination of the relationships they share, such as peer groups or close friends. People will use their common background knowledge to understand each other even when expressions are indirect (inference).

The stages of IS analysis include an ethnographic period:

1- Giving a description of the communicative ecology/context.
2- Identifying recuring patterns in communication that is relevant to the research problem.
3- Conducting observations and interviews with key participants to get insights on how they manage challenges at work and their current and past expectations regarding these issues.
4- Scanning the recorded data for content and pronunciation and prosodic organisation.

The analysis also focuses on evidence of interaction during conversations, such as turn-taking, discourse markers (e.g., 'okay' and 'well'), and hesitations and pauses (Vine et al., 2008). Applying IS to workplace research offers valuable insights into multiple areas, such as how leaders negotiate and enact power, or how routine encounters (e.g., meetings) are structured (Vine, 2020). Given that IS inherently focuses on the linguistic and cultural diversity of the communicative environment (Gumperz, 2015), it is an appropriate approach for this study, especially since the participants (medical professionals) come from various backgrounds. In IS analysis, the goal is to uncover how participants achieve their communicative objectives as they engage with others in real-life conversations. This goal is accomplished by focusing on the meaning-making processes and the implicit background assumptions that underpin the negotiation of interpretations. Because the purpose of my research is to understand how the doctors make their decisions and help their patients, the influence of the doctors' different background has to be included int he analysis. Their discussion and negations are a shared activity where they utilise their backgrounds as they converse, which must be part of the analysis to uncover how it shaped their communication wither possibly or negatively

3.4 Multimethod Framework to Study Decision Making in Doctor-Doctor Meetings: Combining GA, CA and IS

Because the aim of this research is to understand how decisions in doctor-doctor meetings are produced, it became important to combine GA, CA and IS to give as many details as possible into the interactional nature and processes of DM between doctors. The combination of multiple methods is called multimethod (Biber, Rodriguez & Frost, 2015). In multimethod, the research design has the flexibility of relying of multiple qualitative methods where the first one is the one the primary method and the others complement it. The methods could be used equally or as a supporting method (Biber, Rodriguez & Frost, 2015). Combining more than one method serves several purposes. While each method can provide a good analysis on its own, combining several methods would utilise the strength of each method and bridge the gap of the drawback of relying on one method only. It will add more validation to the analysis.

In qualitative driven research, it can be difficult to completely predict or state upfront the exact methods used, especially when investigating areas that are hardly researched or not researched (Biber, Rodriguez & Frost, 2015). This applies to the current thesis as the literature did not reflect any similar studies with the same objectives as this study. Thus, as the data was collected and initial analysis started, the methods that would serve the analysis began to come together based on the primary analysis.

The multimethod framework presents a novel contribution novelty to the analysis of professional medical communication in workplace, specifically DM in doctor-doctor meeting in particular. The research covered in the literature was heavily showing a reliance on a single method such as CA, which narrowed the analysis scoop. One of the goals of this research is to help medical students understand how to communicate at the workplace. By combining the methods, the results will give them a structure of what to expect in a DM meeting while expanding their understanding of the reasons behind the use of the discursive strategies that the analysis has revealed.

GA can be very useful in investigating team DM in a medical context. This analytical approach structures and interprets the moves and structure of DM, identifying discursive features in this specialized interaction. GA reflects how discourse is formed within specific contexts, showcasing terms and communicative practices used while displaying the characteristics of the genre's users (Koester & Handford, 2012; Trady & Swales, 2014). Moves analysis will help with identifying each obligatory and optional move and the function that the move serves, while Steps will show the details of each move is constructed and how the steps are joined together within each move.

In a medical context, understanding the processes and practices involved in DM is crucial since the primary objective is to improve the healthcare outcome for the patient. For a decision to be reached, specific standardized steps and practices must be followed. DM is an action, and "genres are formed to carry out actions and purposes" (Trady & Swales, 2014:166). GA aims to identify rhetorical moves or text parts that serve specific functions, shedding light on hidden complexities related to professional competence. The analysis has extended to studies of GA in the workplace, where DM typically involves three stages: identifying the problem, discussing solutions, and deciding and reaching an agreement (Koester & Handford, 2012), but it has not been conducted in a medical context yet. GA is used in the present study to delineate the moves and steps involved in team DM showing how decision making unfolds and what kind of discursive resources are used to perform the different stages of DM. It will raise awareness and inform doctors and doctors-to-be of key points and discourse resources necessary for negotiating and discussing decisions through the medium of English in increasingly multilingual and multicultural Saudi hospitals. Medical students need to be exposed to an authentic representation of this genre since it relies heavily on mutual interaction with others that needs to be as clear as possible to avoid putting the patient's lives in danger. During DM discussions, doctors exchange knowledge vital for their decision-making negotiations. They must be aware of the specific points of decision interaction since spoken genres are influenced by the rhetorical strategies of their users, which can change as the interaction progresses. This variability makes it challenging to predict a detailed structure of the genre, and at the same time calls for more studied that represent this genre and demystify its moves and steps.

CA has been pivotal in studying interactions in medical contexts, which justifies its selection for this study. Many medical studies reviewed whether focusing on doctor-patient or doctor-doctor interactions, have utilized CA to investigate decision-making (DM). Barnes (2019) states in his article on CA in medical consultations that findings from CA research have revealed challenges and strategies used by doctors and patients to arrive at appropriate decisions. CA's detailed examination of medical interactions allows researchers to pinpoint how specific spoken utterances, their design, and sequencing influence medical DM processes. These findings also clarify what constitutes effective interactive practice in standard medical consultations, especially in participatory decision-making (Barnes, 2019). If solid evidence shows that these interactive practices lead to better consultation results, they could be recommended for broader implementation. Additionally, findings of how the DM interaction unfolds and what effects it could inspire modifications through integration into communication-based interventions or

evidence-based training programs for doctors especially junior doctors or those who are just about to enter the medical profession and help young doctors. Such initiatives could help young doctors better understand how to participate in discussions within teams and contribute effectively to clinical decision-making processes. To ensure the effectiveness of such interventions, a realistic representation of communication is necessary, and this can be achieved by adopting CA.

Research on decision-making in medical departments such as oncology has begun to employ CA with a focus on interactions between doctors and patients. It validates the use of CA in this high-risk context, revealing important outcomes, such as how decisions can be presented to patients either as recommendations or as options (Barnes, 2019) and to minimise potential harm or negative consequences (e.g., distress) that can arise especially when bad news has to be delivered and acted upon in decision making about treatments.

Since my focus is on decision-making in doctor-doctor team meetings, I am using techniques from CA to examine the true taking process and large discourse features (humour and code-switching) and small discourse features (pauses, silence, overlaps, interruptions) to understand how the decision is conducted. The doctors in their meetings propose treatments that leads to extended negotiations at many cases. The negotiations must end with accepting or refusing a treatment, which in this case is the decision. In cancer treatments, a decision has to be made. In my study, the decision-making process is collaborative, which requires understanding how the doctors form and react to the turns between each other and what discursive resources they might resort to help them reach the discussion. IS has been integrated with CA in this analysis, providing crucial information about the context of the study and the participants. This integration enriches our understanding of the participants' backgrounds, their workplace environment and how these elements influence their communication.

Lastly, the analysis is complemented by the concepts of transactional and relational interactions in the workplace. Studies on workplace discourse (Chui et al., 2016; Daly et al., 2004; Vine, 2020) reveal that both types of interactions exist in the workplace, as they help coworkers achieve their work outcomes. Considering that CS and humour, which are relational aspects of interaction, were prominent in my data, I decided to include them to the investigation of how the language and discursive sources were used by the doctors to serve relational or transactional functions of the interaction.

The reason for integrating GA, IS and CA in this study is to provide a comprehensive understanding of how clinical decisions are made during doctor-doctor meetings. Each approach

offers a unique lens for examining the data, and together they allow for a layered analysis that captures both the structural organisation and the interactional dynamics of decision-making talk.

GA identifies the overall structure and rhetorical organisation of the meetings. It focuses on how the discussions are staged through recurring moves—such as introducing patients, proposing plans, evaluating progress, and reaching a decision—which reflect the communicative purpose and institutional norms of these meetings. IS adds depth by examining how participants negotiate meaning and manage interpersonal dynamics in context. By focusing on contextualisation cues such as code-switching, intonation, and laughter, IS reveals how doctors navigate alignment, express emotions, and draw on shared cultural or professional backgrounds to construct understanding and manage power relations. CA, through its transcription conventions and fine-grained attention to turn-taking and sequential organisation, allows for the detailed analysis of how talk unfolds moment by moment. The use of conversation analytic conventions helps track how pauses, overlaps, intonation, and laughter signal interactional moves, manage uncertainty, and contribute to the team discussion nature of decision-making.

These three approaches are used together because each one compensates for the limitations of the others. GA provides the macro-structure, IS explains the social and cultural dimensions of meaning-making, and CA offers a micro-level view of the interactional processes. This integrative approach enables a more holistic understanding of how clinical decisions are jointly produced through language in a high-stakes, team-based medical environment.

Explain briefly to what extent is the analysis presented in empirical chapters conversation analytic.

Excluding IS would result in a limited understanding of how social and cultural backgrounds shape meaning in decision-making talk. IS provides tools to identify contextualisation cues that reflect alignment, power dynamics, and shared cultural knowledge. Without it, the analysis would lack insight into how multilingual doctors from diverse backgrounds navigate social relationships, express emotion, or establish solidarity and credibility through language. This would risk overlooking how underlying assumptions, identities, and relationships shape the interaction in subtle but crucial ways.

On the other hand, removing CA would compromise the level of detail in capturing how interaction is managed in real time. CA's conventions enable close analysis of how paralinguistic features like laughter, hesitation, pauses, and overlaps contribute to the negotiation of decisions. These features are key to understanding how participants signal agreement, soften disagreement,

or manage uncertainty. Without CA, the analysis would miss these interactional cues and the micro-level dynamics that often underpin how decisions are accepted, challenged, or revised. Together, GA, IS, and CA provide structural, contextual, and sequential insight into decision-making discourse, making each essential to a full understanding of the data.

3.5 Data Collection: opportunities and challenges

The main source of data in this thesis is the spoken interactions recorded at doctors' meetings in hospitals. Initially, I aimed to collect spoken data at any opportunity I could find, and therefore contacted four different hospitals. Three approved the study, and the fourth did not respond even after sending all the required documents. The table below shows the timeline of correspondence with the hospitals.

Table 1 *Correspondence timeline*

Hospital	**First contact**	**Approval**	**Data collection**
Hospital 1	May 26	29 June 2021	July-2021
Hospital 2 (data site)	May 30th 2021	26-10-2021	Mid December 2021- February 2022
Hospital 3	March- 2021	July- 2021	Non
Hospital 4	March- 20021	Non	Non

I contacted family members and friends who worked in hospitals in Saudi Arabia to ask them about how I could collect data in hospitals. They provided me with email and phone number contacts with the Institutional Review Board (IRB) of two hospitals (hospitals 1 and 2). The other two, I used the hospital's websites to obtain information about their IRB contact information. The IRB is responsible for looking at research proposals for any individual who would like to conduct research in the hospital wither it is clinic or nonclinical research. The IRB has a set of specific forms that need to be completed so that the study can be reviewed and accepted.

The IRB in all the different hospitals that I contacted required the following forms: the proposal of the study, the researcher's Curriculum Vitae (CV), data collection tools (including a background questionnaire and interview protocol), an informed consent form, a certificate for Good Clinical Practice (GCP), and a Conflict of Interest (COI) certificate. The only variation is the protocol proposal, which depends on the form that each hospital uses. The IRB will accept or refuse the study and monitor the progress of the study. They do not interfere and help in getting participants as this depends on the researcher only. When I received IRB approval from the first

hospital, I immediately began the process of data collection. However, several complications arose during my attempts at various departments at the first hospital.

The first major complication was that many potential participants were not willing to take part in the study. I started with the Obstetrics department, where the head was informed about my research but only directed me to the doctor meetings' location without introducing me to the staff. Consequently, I had to introduce myself and explain my study. Only five doctors who were present in the room signed the consent form and completed the background questionnaire; the rest refused to participate. The Obstetrics department meetings had between 10 and 16 doctors, and I struggled to get consent from many of them. Some doctors would look at me during the meeting, and some wouldn't talk, waiting for me to leave. It became very awkward, and I had to leave several meetings.

Another complication was managing when to record the meetings. With few consenting participants and a large number of doctors, there were frequent overlaps, making it difficult to identify speakers. I made further attempts in other departments, including Paediatrics and Psychiatry. The head of the Paediatrics department did not help me access meetings or introduce me to anyone. The head of the Psychiatry department politely refused my request, expressing concern about patient confidentiality. He explained that mental health issues are treated as taboo by their patients' families, and he did not want me to accidentally recognize any patients. Despite my assurances of confidentiality, he still declined. At this point, I realized that the first attempt was unsuccessful, and I had to end it. I continued pursuing the other hospitals while trying to collect data at the first hospital in case the initial attempt failed.

Other hospitals required similar IRB forms to consider the data collection request. The second hospital, where I eventually collected data, insisted that I collaborate with a principal investigator from their hospital. They connected me with the head of the Haematology department, Dr. Saad, who agreed to be the principal investigator. Negotiations followed, including their initial reluctance to allow audio recording, preferring notes instead. I politely insisted that my data depended on recordings and assured them of anonymity and adherence to the ethics rules of the hospital and the University of Reading. They accepted my explanation but refused any collection of written data, such as handover samples. I agreed and clarified that the notes I would collect were my own. I was also required to send progress and final reports, which I did. The IRB's last requirement was to use the hospital's templets for the consent form, which had to be written in both Arabic and English, and to include the hospital's logo in the background questionnaire.

The IRB and Dr. Saad exchanged emails with all of Oncology centre departments to ensure they were informed about the data collection. The Haematology department is part of the oncology centre, which includes other departments. After obtaining IRB approval, I had to wait two months to gain access to the hospital site due to COVID restrictions. Once restrictions were eased, Dr. Saad discussed with me which departments would be suitable for data collection. Since doctors had their meetings online, he directed me to the nurse station, where handovers were still conducted face-to-face.

Dr. Saad introduced me to key staff members at different nursing stations in the Oncology centre and explained the study to them. I started collecting data in the Haematology department, where Dr. Saad was the head. I coordinated with the head nurse, who introduced me to several charge nurses and explained my presence. Most participants signed the consent form upon seeing the head of the department's name, though some still declined. Having an insider they knew helped build trust. It is easier for researchers to access sites and collect data with the help of a gatekeeper (Sharan & Tisdell,2015). After a month of observation at the nursing station, I noticed that the doctors had resumed face-to-face meetings. I contacted Dr. Saad, the principal investigator, who introduced me to the doctors at the Haematology department meeting and explained my research. Most doctors signed the consent form, which allowed me to record the sessions. During both nurses' handovers and doctors' meetings, I was present and held the audio recorder or put it on a desk, which was a small portable Sony reorder that resembled a flash drive.

While the doctors initially welcomed me, they were surprised when I returned for more meetings. They changed meeting times and locations without informing me, making it challenging to keep up with the schedule of their meeting and to attend on times. Despite these difficulties, I had attended six meetings. Dr. Saad then introduced me to the doctor in the Palliative Care department to help me attend meetings there, but I was repeatedly told that there were no meetings by that doctor. Other multidisciplinary meetings refused my presence due to confidentiality concerns. Ultimately, I decided to use the collected data and concluded the data collection from that hospital.

The collected data included nurse-to-nurse and doctor-to-doctor handovers, background questionnaires, observations, and interviews. Overall, I had 24 participants (16 nurses and eight doctors). Interviews were conducted with three participants (2 nurses and 1 doctor). The focus of this study became the doctors' handover meetings due to the extended discussions, which provided unique data with a broader scope for analysis. The next sections provide detailed description of data collection in the doctor-doctor team meetings.

3.6 Doctor-Doctor Team Meetings

The data were collected from six meetings. The meetings always started after 3 p.m. and lasted a minimum of one hour to almost one hour and forty minutes. The meetings took place of the following dates: Thursday (27-01-2022- 03-02-2022- 10-02-2022- 17-02-2022- 24-02-2022) and Tuesday 15-02-2022. In an interview with one of the participating doctors, I asked about the nature of their meetings (see Appendix 1 for the interview transcripts). Dr. Saber started by informing me that they were following a different meeting structure than what I had attended. According to Dr. Saber, on Tuesday they have 'tumour board' meetings where they discuss two to four conflicting cases that needs multidisciplinary meeting as they need the help of other specialities, and they need to make a decision about them. On Thursday, the meetings are called 'endorsement' which are weekly handover meetings. They provide a handover of up to 16 inpatients, so that they cover them all. The purpose of this handover is to provide doctors working on the weekend (one consultant and one assistant consultant only) with complete information of all the patients. In the meetings that I have attended, I noticed that while it was mostly handover, it still had conflicted cases discussions. The Tuesday meeting was in a different room and had other doctors. It seemed like the 'tumour board' because five patients were discussed. I did not attend it form the beginning because thy changed the room. When one of the participating doctors saw me standing next to the usual meeting room, she informed me that they were at a different room.

All the meetings included the presence of consultants and assistant consultants. There was a total of eight doctors. The participants are mentioned in the table below.

Table 2 *Participants' information*

Doctor	Nationality	Age	Gender	Title/ job description
Saad	Saudi	47	Male	Consultant and the head of the Haematology department (20 years' experience of working in hospitals)
Naji	Saudi	43	Male	Consultant (less than a month)
Jaber	Egyptian	57	Male	Consultant (33 years of experience)
Mohsen	Yamani	45	Male	Assistant consultant (7 years of experience)
Noor	Egyptian	36	Female	Assistant consultant (3 years of experience)
Reem	Saudi	30	Female	Haematology fellow (1 Month)
Saber	Egyptian	35	Male	Assistant consultant (10 years of experience)
Nader	Egyptian	39	Male	Assistant consultant (14 years of experience)

Some meetings could have included more doctors who were aware of the study but did not participate. Therefore, the data were based only on the consenting doctors. Based on my observations, the doctors waited until the head of the department (Dr. Saad) arrived. The consultants explicitly asked each to check if one of them knew when Dr. Saad would join them. Dr. Saad has participated in four meetings. Five meetings were conducted in the same room. The drawing below shows the meeting room. The consultants would sit next to each other (pink circles), and the assistant consultants would sit next to other assistant consultants (green rectangles). I sat in a corner (box marked with R). I deliberately chose to be at the corner so that I could minimise my presence as much as I could and used the Sony recorder to record the meetings.

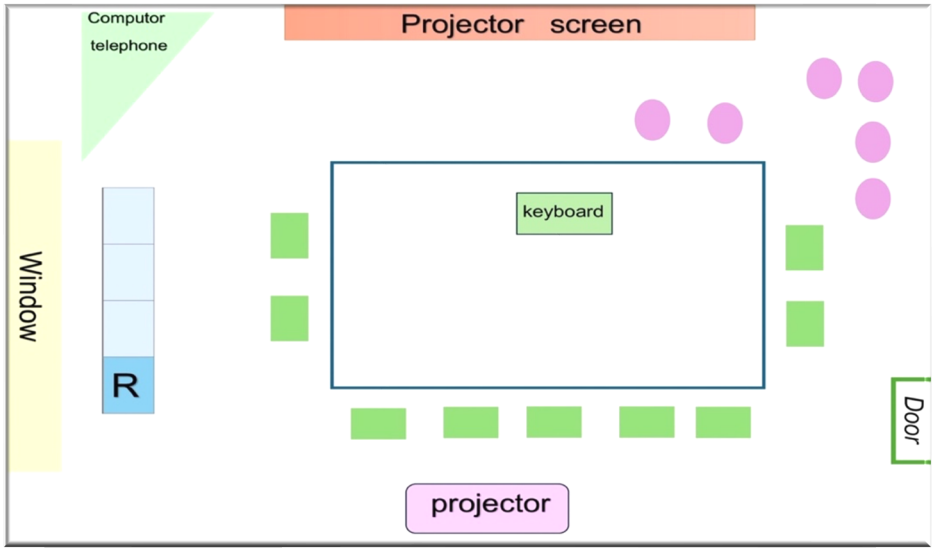


Figure 1 *Meeting room*

All the meetings represent weekly handover meetings, or, as doctors in this hospital call them, 'endorsement'. Handover (or handoff) is 'the exchange between health professionals of information about a patient accompanying either a transfer of control over, or of responsibility for, the patient.' (Cohen & Hilligoss, 2010:494). Handover is a pivotal communicative event in medical and nursing hospital practice, occurring at different times and in a range of settings, such as shift changes between wards and on discharge (Eggins & Slade, 2012). A handover is a key communicative event in patient care because it records the patient's journey while continually assessing the patient's condition (Watson et al., 2015). The process of handover can vary based on where it takes place, as it could happen in shift-to-shift between nursing staff only or doctors handing the shift to next day doctors, and the ultimate goal is to ensure effective transfer of patients' information and care among the medical staff to ensure proper healthcare (Watson et al., 2015; Pun et al.,2020).

In this study, doctors provided a handover of up to 16 inpatients. The purpose of this handover is to provide doctors working on the weekend (one consultant and one assistant consultant) with complete information of all the patients. While the meetings had a handover nature, they still had conflicting case discussions and included many decision-making moments. All meetings included consultants and assistant consultants. The doctors were wearing masks all the time due to Covid precautions, and the door was left open to circulate air as another preclusion. This affected the quality of the recording when there was outside noise or added more difficulty in understanding doctors who had naturally low voices. The next section provides details of the observations and field notes that complement the methodology.

3.7 Observations and field notes

It is common to use observations in qualitative research in applied linguistics because they help provide insights into how language is used in different social situations (Curdt-Christiansen, 2020). According to Cowie (2009:166), 'observations are the conscious noticing and detailed examination of participants' behaviour in a naturistic setting'. The observational data creates a generated first-hand report where the observer depends on what is seen and felt to produce field notes that represent an image of social practice (Wasterfors, 2018).

Wasterfors (2018) stresses including some features in observations such as details and sequences. The details are related to what people say, do, and how they accomplish their tasks. While the researcher strives to note as many details as possible, they cannot possibly capture all the details in interactions, and some details may not be used in the analysis. As for the sequence, it describes how the phenomena evolve over time. Observing sequences helps in proving more contextualisation of the events under observation and provides a story of what is happening. This contextualisation is important because the observer aims to explore the field to obtain information that is missing from the research.

Other important observational features include the physical place, social actors, interactions, and time (Curdt-Christiansen, 2020). The physical place is the literal description of the research site which includes details of the data collection site. Examples of these details are location, furniture arrangement, pictures, and decorations. Social actors relate to the people present during the observation and what they do. This would provide details about their social status and be part of analysing how it would affect the interaction. These interactions are related to how the language is used. For instance, adding whether the interaction relied on verbal or non-

verbal language or formal/informal language was used. In time, the observer gives a record of the activities, how many times they take place, and when.

The observation took place at two locations: the nursing station and the doctor's meetings. The nurse station will be mentioned briefly, even though the data relied on doctors' meetings only, because there were some benefits from that observation. Observation time depends on the purpose and constraints of the study (Sharan & Tisdell, 2015). I arrived at the station half an hour before the morning handover. I would then attend and record the handover and continue my observations for two hours. Being there familiarised me with the setting of the haematology ward. I purposely did not spend a longer time because I would get confused by the inpatient families as a member of the staff, and they would ask me questions. In addition, there was a large number of nursing staff at that department, and not all of them knew about my study. This resulted in me being introduced several times by the charge nurse, and it reminded others that I was there whenever they forgot about my presence. There was also an incident in which a nurse asked me why I was there. When I told her about my study, she sighed and said, 'Thank God, I thought you were from infection control'. My presence could have been minimised if I had wore a lab coat. This would have made blending easier. Being at the station helped me learn more of the vocabularies related to that department, and this helped me as I transcribed all data. I was familiar with hearing the words even if I did not understand them, which helped me ease into the doctors' meetings.

In the doctors' meetings, I arrived 40 minutes before the meetings. I would sit in the same corner every time, and I wrote my notes in a notebook. During the meetings, I initially observed some of the features that I had in my protocol. Then, the observation depended on capturing details of their interaction, such as how they took turns to do the handover or what they used to report the handover. The observations included any interactional detail that caught my attention, even if it was not used in the analysis. It was mostly seeing how doctors collaborated. All observations were recorded in written field notes.

The observation must lead to a record that can be obtained with field notes (Sharanm & Tisdell, 2015). Field notes can be written on the site of data collection or immediately after leaving the location, and they would require more time that the observation. The notes need to be written in a format that helps the researcher find the information they seek. In my field note protocol, I adopted the recommendations of Curdt-Christiansen (2020) and Sharanm and Tisdell (2015). My protocol (see Appendix 2) includes the time, place, and purpose of my observations. Participants were listed in every observation, including their numbers and who they were. I have included a

margin on the side to include any note that caught my attention and added my comments on the side. The protocol also included subtle factors that refer to any information that could not be critical but can still add to the data, such as informal activities (Sharanm & Tisdell, 2015).

The protocol was adjusted several times. I used it when I observed the nursing station, even though I did not use the data, because the doctors' meetings were a rich source of more complex data. While using it at the nursing station, I noticed that focusing on specific questions, such as miscommunication, was not applicable. Therefore, from that point, I decided to rely on unstructured observation where I capture their use of language as the staff interact with each other. Also, using the template was obvious while I was there and made me stand out in an unexpected way. Some nursing staff wondered if I was someone inspecting them for infection control. So, when I started attending the doctors' meetings, I used a regular notebook. I wrote in it the time, date, who was there, and added any details I noticed while observing as the doctors were talking with each other. All notes were handwritten. I have also provided a description of the meeting room (as in Figure 1). The observations and notes helped me add more questions to the interviews. An important reason for unstructured observation was based on my experience between the first unsuccessful and successful attempts. Each place operated differently, which was expected, but I decided after the first attempts and the nursing station observation to approach the observation without any expectation and just record any detail that was new to me or stood out. I knew that the core of my analysis depended on the recorded meetings, and that made my observational interest focus more on representing the setting of the meeting room accompanied by any other details that would enrich the analysis, such as how would the doctors read their notes or any body language cues.

3.8 Interviews

The interviews were included for several reasons. The interviews would add insights into the context of the hospital study. The hospital setting was unfamiliar and required information about it, which would explain the role that English plays in hospital communication. Another reason was to explain the data and add more information on how English was used by doctors. The interviews were semi-structured. Semi-structured interviews include main questions that have to be addressed in the study, while allowing the flexibility of adding more probing and in-depth questions as the interview continues (Richards, 2009). I included seven main questions and added more questions based on my observations. The questions aimed to explain the role of English in

the hospital's communication, the challenges that doctors face in using English at the hospital, and recommendations to improve the curriculum for future doctors.

Conducting interviews presents a few challenges (Newcomer et al., 2015), beginning with the need for an interviewer who is both alert and well informed in basic interview skills. Friedman (2012) provides recommendations for interviews. He encourages researchers to use their interview suggestions as a guide rather than a set-in-stone checklist. The researcher needs to be alert while interviewing participants because, based on the progress of the interviews, asking additional questions or omitting planned questions could be necessary. Nevertheless, the researcher should still try to anticipate possible questions and a possible sequence for their interview questions, and they should aim to reevaluate each question after conducting their first interview in order to determine any necessary changes (Newcomer et al., 2015). Friedman (2012) also warns researchers against dominating interviews because their objective is to understand the interviewee's perspective.

Another challenge is time and labour (Newcomer et al., 2015). Interviews are time-consuming because researchers must allocate adequate time for each participant and then spend additional time transcribing and analysing all the data. Finally, researchers should consider ethical issues such as anonymity and confidentiality and address these concerns in their interviews (Longhurst, 2003). In this study, I addressed such ethical issues by assuring the participants that their personal information, such as their names, would not be disclosed. All participants understood that their information would be stored safely and that they could withdraw from the study at any point without needing to provide any explanation.

I conducted interviews with two doctors who were not participants as a pilot. The questions were easy to understand based on feedback from doctors. I conducted interviews with three participants (two nurses and one doctor). Unfortunately, I did not have more participants. I sent emails multiple times to those who volunteered to participate in the interviews but did not receive any response from them. The interviews were conducted online because I was back in the UK after collecting the data. The interviews were intended to be a phase that followed data collection and transcription to give time to become familiar with the data and think about what I could add to the interview questions. However, I did not wait for that long. I started contacting the participants immediately and managed to conduct three interviews. Online interviews enable researchers to overcome geographical and temporal obstacles while providing opportunities for interactions between researchers and participants (James & Busher, 2016). I conducted interviews using Google Dou. Fortunately, the internet connection was strong during the interviews. I still

had some difficulty as some of the participants did the interview while at work due to their busy schedule, which I believe had to do with many of them not replying to my email. Two participants were Arabic speakers. Therefore, I gave them the choice to use the language they preferred, and they chose Arabic. This allowed participants to freely express their thoughts without any language constraints. The third participant was Indian; therefore, English was our only option. Once I was done with the interviews, I transcribed them to be able to use them as I analysed the data.

3.9 Questionnaire

Research that investigates language use requires information about the linguistic background and self-reported proficiency of participants based on the research objectives (Li et al., 2014). Thus, a language history questionnaire was added to obtain background information about the participants. The participants in this study had diverse backgrounds. The nursing staff came from Saudi Arabia, Egypt, Philippines, India, and Pakistan. The doctors (the focus of the study) speak Arabic and come from different countries, but they all have to use English at the hospital. The questionnaire is based on Li et al.'s (2014) recommendations of factors to include, such as the user's linguistic history, proficiency in the second language, and context and habits of language use. The questions were modified to reflect the objectives of this study. The questionnaire was included to provide information about doctors' language experiences at the study level, workplace experience, and personal information about doctors, such as their years of experience. The questionnaire had 18 questions (see Appendix 3) because I did not want to overwhelm the doctors with too many questions and to ensure that they would answer all the questions. The first set of questions (1-11) included age, gender, place of work, years or experience, department, specialty, level of study, nationality, first language, and country of origin. The participants were required to write the answers. The next (12-15) set had them rate their English learning experience and proficiency which had multiple choice options. The answer choices for language proficiency were excellent, very good, good, fair, or poor. The last three questions were open ended. The questions included talking about challenges in using English at the hospital and with colleagues, advantages of using English, and interview preferences. The questions conclude with the tools used to collect the data.

3.10 Ethics

In order to collect data for my study, I had to obtain ethics clearance from both the University of Reading and the hospital in Saudi Arabia where I was collecting the data. At the

University of Reading, I submitted an application to the Ethics Committee and was granted approval (see Appendix 4). The hospital's IRB, on the other hand, required more forms before considering my request to collect data. I had to submit a research proposal (protocol) signed by both the principal investigator and me, my personal Curriculum Vitae (CV), data collection tools (including a background questionnaire and interview protocol), an informed consent form using the hospital's template that has both Arabic and English, a certificate for Good Clinical Practice (GCP), and a Conflict of Interest (COI) certificate. Obtaining IRB approval took two months before they gave their consent. To ensure anonymity, I did not include it in the appendix.

3.11 Positionality of the researcher

I maintained the role of participant as observer during the data collection. A participant observer may or may not be part of the community under study and gains deeper knowledge about the context through long-term observation with as little obstruction as possible (Cohen et al., as cited by Curdt-Christiansen, 2019). This entailed that I was present during the data collection during all meetings without taking any part in their discussions. Even as I strived to make myself as unnoticeable as possible by sitting in the far corner of the room and not showing any reaction to their conversation, my presence was still notable to doctors. This presence is inevitable and can influence data collection (Heigham & Sakui, 2009).

While attending the meetings with the doctors and nurses' handovers, I noticed that even though the doctors and nursing staff signed the consent form and agreed to be part of the research, they were not completely comfortable with me being there at least initially. At the nurse station, one of the charge nurses asked me several times when I would be done with collecting the data. That charge nurse, in particular, would tell me when to start or stop recording. I also noticed that there was some information he would not say in front of me; he would look at me and say, "I'm done." The moment I left, I could hear him talking with the other charge nurse taking over the shift, telling him more information about some of the patients.

As for the doctors, there was a moment in the second meeting when one of the consultants commented on my presence, recording them while they had a sensitive discussion about a patient. This shows that despite all the reassurances and knowing that the head of the department agreed to the recordings and that ethical consent was given, the participants were always aware of my presence as an outsider in their community. This could raise questions about how authentically they presented themselves during the meetings. This was another reason for choosing doctor

meetings. Because the meetings lasted for more than an hour, they would eventually become more engaged in their discussions and forget about my presence.

3.12 Analytical Procedures

Analysing the data in this study primarily relied on the transcription process and the analysis of the transcripts. The process of transcribing the recordings not only facilitated data analysis but also helped in producing preliminary results during engagement with the transcripts and helped me focus the analysis of decision making as a genre and a discursive structured event which is conducted using a range of small and large discourse features.

3.12.1 Transcriptions

The transcription procedure first depended on the audio quality, a point I noticed during my first data collection attempt. Initially, I tried using recording programs on my iPhone, but the quality was poor. Consequently, I purchased a Sony audio recorder and tested it multiple times at home. All audio files were stored on this device, and I later downloaded them to my computer. My transcription process involved several steps: starting by listening and writing immediately with earphones, followed by listening several times through computer speakers. The process was time-consuming and took eight months and occasionally difficult due to numerous overlaps and background noise from inside and outside the room. Due to COVID-19 precautions, the door to the meeting room remained open, sometimes affecting the clarity of the recordings. However, this was not a significant issue since the meetings mostly occurred at the end of the day in a room away from patient traffic.

Once transcribed, I used an application called Audacity, recommended by my second supervisor, to help with transcription. This app allowed me to accurately measure timing stops, identify latching in conversations, and note high intonation and stress. I used it only to edit the episodes and examples in the analysis because it was very time-consuming. The same app was helpful in clearing the sound quality when possible. Even with the app, I had to omit some lines in the transcription due to poor quality and extreme overlaps in conversation that made it impossible to hear the conversation or determine who was talking to whom.

Two other important aspects of transcription were the key and translation. The meetings were conducted predominantly in English, but Arabic was also used. The two languages have completely different orthographic systems, which added complexity and time to preparing and editing the transcripts. I adapted the key symbols by Jefferson (1984) to ensure they were similar for both languages (see Appendix 5). For translation from Arabic to English, I consulted with two

colleagues who are both proficient in English to ensure accurate meaning capture. The first colleague, who holds a master's degree in translation and has experience teaching medical classes, is familiar with various Arabic dialects (including different Saudi, Egyptian, and Jordanian varieties) represented by my participants. She reviewed a sample and recommended an online dictionary called 'Reverso'. The dictionary was useful in situations where more than one English translation was possible. It helped in choosing the best English word that would give the meaning of the Arabic word. The other colleague, experienced with the same dialects and teaching in medical contexts, checked another sample; her translation closely matched mine, differing only in word choice preference.

I modified how I wrote the transcripts several times to accurately represent the conversations verbatim, even when translating Arabic parts into English. Some parts in the original English were not grammatically correct, but this was precisely how the doctors spoke. I did not amend anything in the lexical and grammatical choices that the doctors made as they spoke. For instance, I did not correct how the plural words or verb tense should be based on the rules of English, and I transcribed it based on how the participants spoke. I chose not to write the Arabic phonetically, as I found it difficult to read and follow in other studies. Instead, I used the original language, as in the literature I reviewed (Auer, 2020; Schnurr & Zayts, 2017). Dealing with multiple Arabic varieties, I realized that phonetic transcription would not help distinguish them for the reader.

When translating Arabic parts, I avoided dedicating separate lines for translated words, followed by another line combining translated Arabic with English, as this made the transcript appear cluttered. My episodes were long, and this format could cause both the reader and me to lose track of the conversation. Instead, I wrote a line underneath each Arabic part, providing the entire line again in English as in the following example.

667 Noor هوا ال * كان لسه still not available :هوا: =

*Well the * was then* still not available *he:* =

668 Jaber = :خلاص خده بس ما فيش = هوا ال *

= *he already took the * but there is no*:=

669 Noor = مافيش response :عليه هيا ال /

= *there is no* response *on it the*:/

The transcripts included cancer-related terminology, expected given that the haematology department was part of the oncology centre, and all discussed patients had some form of blood cancer. Understanding these terms depended on several factors. My month-long observation at

the haematology nursing station was invaluable; it familiarized me with terms used during the nursing staff handovers and discussions with doctors. This experience, along with my background in teaching medical English, prepared me for the doctors' meetings, although I still encountered unfamiliar terms. A significant resource was the 'cancer.gov' website, an official U.S. government site that provided useful definitions of medical terms related to cancer.

After completing the transcription, specific episodes and examples were chosen for analysis. The data from meetings 1, 2, and 3 were used for the decision-making chapter. These meetings were selected for specific reasons: they primarily included participating doctors, and when non-participating doctors were present, it was easy to stop the recordings. Even when non-participating doctors did join the discussion, their participation was minimal since it was the turn of their colleagues in the handovers. Additionally, the selected data had the clearest audio quality, as external noise sometimes made accurate transcription difficult. Data with excessive overlapping conversations, where it became impossible to determine who was addressing whom, were also excluded.

The DM data focused on decisions to discharge a patient, continue with treatment, change the treatment, or terminate it. While some parts of the data included extended conversations about dosages and specific medications, these were excluded because the information exchanged was purely technical and related to medical knowledge or departmental protocols, rather than a comprehensive treatment direction. Another criterion for data selection was comprehensibility. Samples that I could not understand, or where the issue being discussed by the doctors was unclear, were eliminated to avoid compromising the analysis. While the primary focus was on data from the first three meetings, I also used data from other meetings for humour and code-switching analyses to obtain adequate samples for the study.

I want to stress that the same data was intentionally reused in the three chapters of the analysis. By using many of the episodes and examples for the DM analysis, the reader will become familiar with these examples. The samples are heavily laden with medical terminologies, as expected. Reusing the same data allows the reader to understand the medical situation from the first analysis chapter, which is crucial for providing a comprehensible context for the story behind and within each episode and example. Reusing the samples again is perfect for showing how the analysis can target and present more detailed results based on the question of the thesis.

To identify emotional expressions in the transcripts, both linguistic and paralinguistic cues were analysed, following frameworks established in discourse and applied linguistics. Linguistic cues included emotionally charged vocabulary (e.g., “wonderful,” “terrible”),

figurative language (e.g., metaphors like “my heart sank”), diminutives, intensifiers, and emphatic or exclamatory sentence structures (Pavlenko, 2005; Ginzburg & Mazzocconi, 2020). These markers were used to detect expressions of positive emotions (such as satisfaction or joy) and negative emotions (such as frustration, sadness, or stress).

Paralinguistic cues were also evaluated, including tone of voice, pitch variation, volume, speech rate, and the presence of filled pauses, laughter, and hesitations (Dewaele, 2010; Schuller et al., 2013). For example, a warm, soft tone combined with moderate volume was interpreted as a sign of emotional warmth or calmness, whereas sharp pitch changes or filled pauses were taken as indicators of nervousness or tension. These cues were particularly useful in interpreting emotional nuance when explicit language was ambiguous or absent. This dual-level analysis allowed for a richer, context-sensitive interpretation of participants' emotional states during interaction. The categories are explained in the following table for detecting emotions in transcript.

Table 3 Emotion detection

Emotional Cue Type	Examples of Cues	Function in Transcript Analysis
Positive Emotion - Linguistic	Use of emotionally positive vocabulary such as 'wonderful', 'amazing', or 'love'; use of metaphors and similes like 'on top of the world'; presence of diminutives (e.g., 'little', 'sweet') and intensifiers (e.g., 'very', 'so'); exclamatory sentences expressing excitement (Ginzburg & Mazzocconi, 2020)	Helps identify expressions of happiness, satisfaction, or emotional upliftment through explicit word choice and figurative language. These markers contribute to thematic coding and understanding speaker affective orientation.
Positive Emotion - Paralinguistic	Warm and soft vocal tone, moderate pitch and volume, laughter in appropriate contexts indicating joy, relaxed rhythm and pace of speech, use of expressive prosody to signal engagement (Dewaele, 2010; Schuller et al., 2013)	Assists in detecting emotionally warm or engaged states even when explicit words are neutral. These cues enrich interpretation of interpersonal rapport and collaborative tone in team settings.
Negative Emotion - Linguistic	Use of negative affective terms such as 'terrible', 'hate', 'disappointed'; metaphors like 'my heart sank'; emphatic language or exclamatory phrases indicating stress or	Provides evidence of emotional distress, dissatisfaction, or conflict through lexical choices and speech

	frustration; hesitant or fragmented sentence structures (Pavlenko, 2005; Ginzburg & Mazzocconi, 2020)	structure. Useful in identifying tensions or breakdowns in communication.
Negative Emotion - Paralinguistic	Harsh, sharp, or flat tone; raised pitch and increased volume to indicate anger or urgency; filled pauses (e.g., 'um', 'uh'), stuttering, or shaky voice to reflect nervousness or anxiety; breathy voice or prosodic flattening to suggest disinterest or sadness (Pavlenko, 2005; Dewaele, 2010; Schuller et al., 2013)	Reveals internal emotional discomfort or heightened emotional intensity through vocal delivery. Supports analysis of speaker vulnerability, conflict management, and interactional stress.

3.12.2 Analysing Humour

While observing and transcribing the meetings, it was noticeable that the doctors often used a variety of discourse features that comes under the umbrella term of humour, as indicated by their laughter. Vine (2020: 96) defines humour as an occurrence "when a speaker says or does something amusing, and when one or more interactants perceive it as amusing." Given that the discussions involved cancer patients—a subject not typically associated with amusement—it became interesting to explore why the doctors resorted to humour and what functions it served.

The analysis began by identifying instances where laughter occurred, using it as a contextualization cue, based on IS (Gumperz, 2015). And techniques from CA looking at turns in these instances to examine how both participants contributed to the humour (Jefferson, 1979). Combining IS within CA provided both top-down and bottom-up perspectives for the analysis. This preliminary analysis relied on episodes identified, and knowledge acquired from my observations of the participants' interactions during, before, and after the meetings. These observations offered insights into group dynamics and how members interacted with each other in transactional and relational moments, which are challenging to discern in workplace interactions.

The next part of the analysis involved grouping the episodes into themes. To corroborate my findings, I referenced existing literature to identify similarities or differences in my interpretations. I also presented a draft of my analysis to my supervisor, serving as a validity check for the accuracy of the results. This stage of the analysis is entirely qualitative and allows for multiple interpretations. However, relying on findings from the literature and my supervisor’s

extensive knowledge in discourse analysis helped validate the findings to a significant extent. As the analysis progressed, one identified function of humour related to fostering solidarity and maintaining harmony, prompting the inclusion of politeness theory (Brown & Levinson, 1978) in the analysis.

3.12.3 Analysing Code Switching

Code-switching (CS) was another prominent feature in the data, despite the initial intention to conduct the meeting in English. An interview with one of the doctors revealed that using English for both verbal and written communication is mandated by hospital policy. However, Arabic was also used alongside English during their meetings. Matras (2009) explains that CS generally involves alternating between languages within a conversation.

Similar to the analysis of humour, the examination of CS began by identifying instances where it was evident, using these as contextualization cues. My approach involved assessing whether CS was limited to words or phrases, or if it extended into longer conversations. I aimed to understand the functions behind these single utterances (intrasentential) and extended dialogues (intersentential). The analysis integrated interactional sociolinguistics (IS) and conversation analysis (CA) to benefit from both top-down and bottom-up approaches. The decision to combine these methodologies was informed by insights from the literature, which suggested that CS serves both transactional and relational goals in the workplace (Chui et al., 2016). Ultimately, the objective was to determine why the doctors used CS, even though they were all capable of communicating exclusively in English, and to identify the functions CS served in this context.

After reviewing the meeting data multiple times, I began to categorize repeated instances of certain phrases, such as agreement tokens or religious expressions. Each phrase was counted to determine how frequently it was used across all six meetings. The agreement words were straightforward to interpret by simple translation. However, the phrases required detailed explanations of their meanings and implications, reflecting a specifically Islamic religious identity. As a Muslim, I provided both the literal and intended meanings of these phrases, as they relate to my culture. Nonetheless, I verified these interpretations with my colleagues—the same ones I consulted for translations—to ensure accuracy. This step was crucial since the use of these phrases served multiple functions that needed precise identification.

For the extended parts of CS, I examined if there was a common pattern to the switches, such as the use of questions. Once these patterns were identified, they were organized into themes to explain the functions of each. After analysing all the data, I corroborated my findings with the

literature and presented a draft to my supervisor to ensure that the results could contribute to empirical findings. Utilizing literature on CS and humour does not detract from the novelty of the results. Instead, it provides support by demonstrating how similar phenomena can occur in different contexts and under circumstances where they might not typically be expected, thereby enriching the literature on medical workplace discourse.

3.12.4 Analysing Decision Making

Decision-making has become a focal point of this thesis, particularly following an interview with one of the participating doctors who explicitly stated that their meetings are convened to make decisions. Dy and Purnell (2012, p. 582) define "shared decision making" as a process where "a healthcare provider communicates to a patient personalized information about options, outcomes, probabilities, and uncertainties of available options, and a patient communicates values and the importance of benefits and harms" (Foundation for Informed Medical Decision-Making, 2006).

The analysis of decision-making (DM) in this thesis was grounded in Genre Analysis and supported with concepts and tools from Interactional Sociolinguistics (IS) and Conversation Analysis (CA). No existing studies in the DM literature have used this kind of multimethod to explore decision making as ongoing moment-by-moment process in doctor-doctor team meetings. n. The analysis began with GA by first examining two examples of decisions that were identified as unambiguous decisions, and two episodes of more complex decisions that involved many moves and steps. Easier decisions had only a few moves and steps, and were resolved quickly and directly, while complicated ones required more time and turns. Utilizing Swales' (1990) framework for move analysis, the analysis began with simpler decisions to determine the basic steps and moves within these decisions. Significant moves were categorized by reviewing the text several times to identify repeated patterns. Each move had its communicative function identified too. The results are discussed in Chapter four.

Specific linguistic cues were associated with each move, such as the phrase "my next patient," which signals the introduction of a new patient and shifts focus away from the previous discussion. After identifying the moves, the subsequent procedure involved detailing the steps within each move, such as the patient presentation move, which included steps for identifying personal information, diagnoses, medical status, and treatment progress. While the moves were consistent across examples, the steps did not necessarily follow a rigid order but were still utilized. As GA was applied to more complex decisions, considerable variations in the moves became

apparent, including additional moves that will be discussed in Chapter four. Doctors often revisited and repeated certain moves as needed, and while some steps were similar across different moves, others varied.

Once GA was completed, CA was employed to examine the moves that required more extended discussions. The focus shifted to understanding how doctors negotiated and exchanged knowledge as they worked towards a decision. With a need to reach a final decision, the turn-taking between the doctors became a critical focus of the analysis, revealing, for instance, how doctors opened the floor for others to contribute to the discussion or indicated whether a consensus had been reached based on others' responses. GA helped identify the resources doctors relied on in each move, such as medical knowledge essential for each decision. CA provided deeper insights into how doctors managed their linguistic resources during discussions. IS added more contextual information about the doctors that completed the analysis.

3.13 Summary

This chapter provides details on the research approaches and methods used in this study. It provided details of GA, CA, and IS and why they were combined in a multimethod framework that would analyse decision-making practices in doctor-doctor team meetings within a multilingual and multicultural hospital. All the details combined with how access to hospital takes place aim to explain how the analysis was conducted and inform future researchers of steps that must be considered in order to access hospitals.

Chapter Four: Decision-Making Analysis

This chapter will present the analysis of decision-making interactions, which in doctor-doctor meetings were the main focus. It will start by providing a genre analysis of the unambiguous decisions, which are decisions that were quick to reach. This will be followed by a genre analysis of the complex decisions that required more interactions between the doctors.

I will start by drawing attention to Figure (2) below as it shows the hierarchy of the doctors in this meeting based on their job titles.

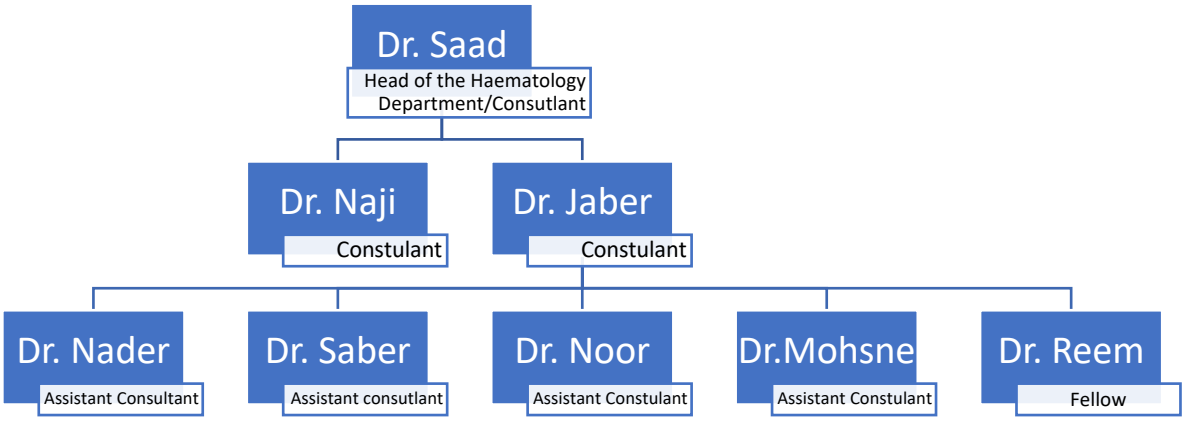


Figure 2 *Hierarchy of the haematology doctors in this study*

The analysis will start with presenting the first two episodes of what I classified as unambiguous decisions. The following two episodes focus the analysis on what I termed difficult decisions.

4.1 Unambiguous decisions

To illustrate how unambiguous decisions are made, I will first start by providing a detailed genre analysis of the unambiguous decisions, as shown in Figure 3, while using Episode 1 to give examples of the Moves.

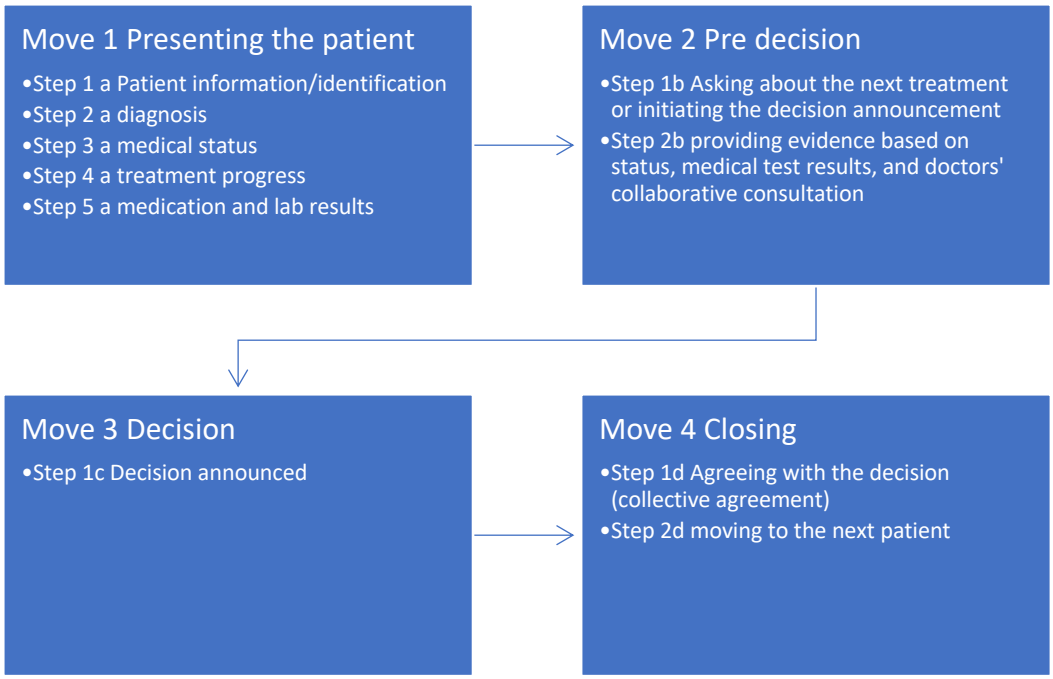


Figure 3 *Unambiguous decision-making process*

Based on the transcripts of the recorded 6 meetings, the analysis identified only eleven episodes of unambiguous decisions suggesting that this kind of decision making was actually rare in the studied context. This kind of decisions took significantly less time up to two minutes, had on average 18 number of turns, and appeared to follow a structured pattern involving four key Moves: Move 1 Presenting the patient, Move 2 Pre-decision, Move 3 Decision and Move 4 Closing, as detailed in the following example. Each Move has several Steps as shown in the diagram above. Steps in Move one provides key information to identify the patients, their medical condition, laboratory test results and updated progress of the treatment. In Move 2, the Steps initiate that a decision will be announced or will be sought while including a medical rational supporting the upcoming decision. Move 3 announces the decision. Move 4 include Steps that indicate collective agreement with the decision and closing the discussion by moving to the next patient. The Moves are similar to those reported by Koester & Handford (2012) such as Move 1 being an equivalent to identifying the problem and reaching an agreement as on Move 4.

4.1.1 Episode 1

Dr. Reem, a haematology fellow, provided a patient handover, noting improvements in the patient's condition. Dr. Naji, acting as the consultant, subsequently made final decisions regarding the patient.

Move 1 (Presenting the patient)

54 Reem am Nader one zero seven forty six years old male patient case of **** ah
55 diagnosed at at a case of CLL [2] ahh started on RCDB ahh day two today ahhh
56 patient is stable no complain to follow up ah ** ah work up ah/

This Episode represents how decision-making aligns with the genre Moves outlined in Figure 2 when doctors reach quick and straightforward decisions in four turns within two minutes. Move 1, Presenting the patient, serves the critical function of providing detailed patient information and fostering shared knowledge that aids doctors in identifying the patient and understanding their treatment status and details. In this example, these Moves commence in lines 54–56. This phase is critical, as decision-making within medical teams depends on information exchange and elicitation prior to any decision-making (Arber, 2008). Move 1 includes two Steps. In Step 1, doctors relay patient's information, such as room number, name, age, diagnosis, gender and sometimes nationality (lines 54–55). In Step 2, Dr. Reem reports on treatment progress by detailing the specific treatments administered, treatment progress or complications, test results, and any upcoming tests (lines 55–56). It is noticeable in this Move that Dr. Reem frames the patient's condition positively as she stressed the words 'stable' and 'no complain' while giving facts about the current medical status of the patient. This indicates that the patient is responding well to the treatment and would contribute to the decision assessment about the next decision that would be made about the patient since this assessment would be based on medical facts.

Move 2 (Pre- decision)

56 patient is stable no complain to follow up ah ** ah work up ah/
57 Naji / so: ah we
58 decided to * him with RCDB implication of therapy in him was the: bulky
59 disease he had no * symptoms still pending the: mutation analyses and **
60 mutation ah amm basically I think if tomorrow there is no tumour *
61 [can go] even can be discharged (0.1) it already started shrinking
62 Noor [can discharge]
{very loud voices coming from the corridor}

[2] An indolent (slow growing) cancer in which too many immature lymphocytes (white blood cells) are found mostly in the blood and bone marrow.

(four turns omitted due to lack of clarity of the sound)

63 Noor = ahm (0.3)

Upon completing Move 1, Dr. Reem transitions to Move 2, which is the Pre-decision phase. The transition is in line 56 when Dr. Reem instructs to 'follow up' with test results. This phase is labelled Pre-decision because it includes asking or announcing a decision as Dr. Naji announced Move 2 line 57 'so: ah we decided to', as well as giving the rationale supporting the decision (lines58-60). In this example, consultant Dr. Naji interrupts Dr. Reem to initiate the Pre-decision Move. Dr. Naji initiates the first Step (line 57) by referring to a conclusion reached through discussions with other doctors regarding the patient as a rationale by providing initial justification for the decision. Throughout the rationale, the consultant explains the decision-making process by referring to recent patient tests and progress. The rationale is reported using a collaborative 'we' to indicate the involvement of at least two doctors in the decision-making process. This indicates that when reaching a decision, doctors rely on collaborative knowledge and professional experiences outside of the actual decision-making context in the particular moment of time (Halveson,2013), even in the presence of supporting medical evidence. In a sense, presented medical evidence is always subject to additional scrutiny. Dr. Naji employs the discourse marker 'so' to explain the actions taken with the patient, expressing certainty in several instances to support the decision. The use of 'we decided' (lines 57–58) indicates a collective decision agreed upon at least two doctors. Although the number and roles of doctors remain unclear, they imply the reliance on professional collaboration in decision-making. This indicates shared responsibility and reinforces the credibility of doctors' choices as medical professionals, thereby reducing doubts regarding decision validity. Dr. Naji also mentioned in line 61 that the tumour is shrinking, validating their status as credible medical experts, since their previous decisions seem to have affected the patient's condition. Thus, previous 'success stories' will be used as a source of knowledge, which is applied in a new situation.

Dr. Naji based his observation on tests as the transcripts shows that doctors rely heavily on continues tests especially that he mentions that they are witing for the results of the mutation analysis. This lab analysis reveals the response of the cancer cells to the treatment. It indicates that they have had other tests that showed a positive progress, and this could explain why the doctors did not question Dr. Naji's information that the cancer is already shrinking. Based on my observation, I noticed that the doctors had access to the patients records because I saw Dr. Noor open the system and take a look at a patient record on the shared projector screen. So, that

information would be in the records that are acceptable to all of them which would explain furthermore why no one questioned Dr. Naji.

Move 3 (Announcing the decision)

60 mutation ah amm basically I think if tomorrow there is no tumour *
61 [can go] even can be discharged (0.1) it already started shrinking

Move 3 involves announcing the decision (lines 60-61). Notably, in this example and the subsequent one, consultants undertake this Move, indicating an element of power associated with decision-making (Dew et al., 2015). In this example, the decision—discharging the patient—is stated in line 61. The decision is notably prefaced with hesitation markers 'ah amm' and hedged 'I think if tomorrow there is no tumour' in line 60, suggesting that it is not a final decision and that circumstances can swiftly change based on ongoing patient monitoring and upcoming results. Thus, even certain decisions remain subject to further changes and modifications and can simply be part of an ongoing chain of decisions.

The use of the conditional 'if' in the same line (60) precisely reflects this potential need to remain open. It also indicates that decisions are or may be part of a longer chain; this decision hinges on the outcome of the latest test. This shows that while doctors rely on patient improvement, tests and collective medical expertise and previous 'success stories', they cannot be completely certain that the condition, and consequently decisions, will not change in the near future, even if their decisions seem swift and clear at present.

Move 4 (Closing)

62 Noor [can discharge]
{very loud voices coming from the corridor}
(four turns omitted due to lack of clarity of the sound)
63 Noor = ahm (0.3)

Following the discharge decision, Move 4, the Closing, supports the decision (line 62), serving as an accepting response to the decision. Step 1 is when Dr. Noor demonstrates agreement by repeating Dr. Naji's discharge decision in line 62, thus providing a form of validation or approval. The reaffirmation of the decision by another medical professional suggests a strong

need for collective decision-making, possibly even unconsciously. Move 4 concludes as the doctors proceed to the next patient (line 64).

This example confirms the existence of a strong hierarchy based on high epistemic status regarding decision-making and control (Mesinioti, Angouri & Turner, 2023). Dr. Naji, as the consultant, conveys the final decision to other doctors. Other assistant consultants present at the meeting have not participated in discussing the decision. When Dr. Naji interrupts Dr. Reem to provide doctors with the decision regarding this patient, other doctors have not interrupted or opposed the discharge decision. This can be attributed to Dr. Naji's status as a consultant, combined with the epistemic status (K+) revealed as he rationalised the decision, making it compelling. This may also explain why Dr. Reem has not responded to the interruption, considering that she is a new team member with less experience (K-) compared to the other doctors. However, the lack of discussion regarding the final decision cannot guarantee that other doctors do not want to be involved in the decision-making process. When Dr. Naji mentions in line 57 that a decision has been made about the treatment, it remains unclear who participated in the discussion. He used 'we' in line 57, but the personal pronoun is ambiguous, and it does not specify who was involved in the decision-making process. He could have strategically used 'we' to convey a sense of collective decision-making and move on with the meeting. This could lead to silencing others as it makes it hard for them to know who they might argue against. The fact that a consultant like Dr. Naji is the one discussing the decision may discourage others from expressing disagreement. In a medical setting emphasising the importance of collective agreement in critical patient decisions, this circumstance can be problematic if assistant consultants find it difficult to express their opinions if they feel that it will not be validated due to hierarchical position constraints. This potential hindrance can compromise the ultimate goal of the meeting: providing the best medical care for patients. Lastly, it is noticeable that this unambiguous decision Episode was conducted in English only as the doctors mentioned medical facts that were contributing to the decision. It shows that English in used in this transactional interaction, decision, when the interaction is quick and lacks discussions of critical complications.

4.1.2 Episode 2

After Dr. Reem provided another patient handover, Dr. Noor, an assistant consultant, asked Dr. Naji about their future treatment plan with the patient. The example is segmented into the Moves to show the genre's representation, but the analysis will be added without separations

since this is a short example and the majority of the analysis is centred around Move 2, and because Moves 1 and 4 follow the genre analysis in this chapter.

Move 1 (Presenting the patient)

344 Reem … ahh plan during the ah weekend ah just follow ال gastro and nephro ahh
… ahh plan during the ah weekend ah just follow *the* gastro and nephro ahh
345 and patient on normal celine one <u>hundred</u> ah ml because patient * hydrated
346 and: ah follow up بال lab <u>haemoglobin</u> WBC absolute metro turophilic <u>count</u>
and: ah follow up *with the* lab <u>haemoglobin</u> WBC absolute metro turophilic <u>count</u>
347 and creatinine

Move 2 (Pre- decision)

348 Noor في أي * plan for restarting starting /
is there * plan for restarting starting/
349 Reem /and/
350 Noor / * ولا :=
/ * *or not*:=
351 Naji = hopefully next week =
352 Reem = mm? =
353 Naji = Sunday Monday depending on the /[creatinine]
354 Noor / [بعد ما يبقى:] discuss with the family يعني =
/ [*after we already:]* and discuss with the family *I mean* =
355 Naji = no on I discuss with him amm يعني ال <u>son</u> wants to: take him out ahh
= no no I discuss with him amm *I mean* <u>son</u> wants to: get him out ahh
356 against medical <u>advice</u>=
357 Noor = ahm=
358 Naji = ahh I explained to him <u>totally</u> the whole situation he does understand * the
359 situation so wither or not if our plan is: ah probably Sunday I would do a *CT
360 ** on the twentieth of Fabu_ of: January just to check if the legions have
361 decreased or not with this treatment ahh <u>but</u> Sunday Mon_ <u>Monday</u> probably

Move 3 (Announcing the decision)

361 decreased or not with this treatment ahh <u>but</u> Sunday Mon_ <u>Monday</u> probably

362 a good to follow with chemo <u>if</u> he agrees it all depends on what they decide
363 over the weekend=

Move 4 (Closing)

364 Noor= ahm next patient {in a low voice}=

This Episode shows the complexity of the decision-making process in that doctors must consider not only the patient but also relatives. However, the decision-making process appears somewhat quick (12 turns in less than three minutes), as Dr. Naji simply relies on scientific evidence to justify his decision, citing test results in line 353. He also attempts to minimise the influence of the patient's family on the decision during the conversation. Dr. Naji's reaction to their interference stems from his epistemic status (K+) as a consultant possessing the necessary knowledge to treat the patent, and the limitation of the family's influence shows a (K-) status of epistemic primacy since it limits their input in the treatment or decision choice (Mesinioti, Angouri & Turner, 2023). Thus, he can reject their attempts to be part of the decision-making process, perceiving it as a threat to patient's health and potentially his professional medical status.

Similar to the first Episode, 4 key Moves can be observed. The Moves and Steps are similar to those in Episode 1, with a notable difference in the Pre-decision Move initiated by Dr. Noor in line 348, who directly enquires about treatment plans. This shows that Move 2 can be performed either by starting the rationale for the decision or by directly asking about it. During my observation of the meetings, I noticed that when assistant consultants asked such questions, they directed them towards consultants who sat adjacent to each other. This suggests their intentions to seek answers from higher ranked consultants rather than the peers at their level or assistant consultants. Since this Step in the Pre-decision phase is the only difference from Episode 1, the focus shifts to how Dr. Naji handled what seemed to be a threat to executing the decision. Dr. Naji's attempts to exclude the family from the decision occur over two turns. This shows that even in unambiguous decisions, doctors are often confronted with and need to consider an array of factors even those that go beyond the patient and the medical knowledge.

The first turn, in line 355, occurs when he openly refuses Dr. Noor's suggestion to consult with the patient's family, using negation 'no' twice to convey his opposition. He then follows this up by explaining why involving the family may not be helpful, considering the patient's son's non-compliance with medical advice and his challenge to their authority as medical professionals. This is shown in his expression of the preposition 'against', which signals opposition, as in

‘against medical advice’ in line 356. Family involvement in the decision-making process is perceived as a threat, as it may lead the patient to follow his family's preferences rather than the medical team's recommendations (Dew et al., 2015), which are based on clinical evidence and professional expertise. Using the phrase ‘against medical advice’ depersonalises the advice since the advice normally would come from a doctor, but by using the noun phrase, the person who made the decision is removed from the interaction making it sounds more scientific and therefore more credible. This reveals that even as the doctors await the test results and despite the patient’s condition, the consultant does not want the last deciding voice to be within the hands of family members because they are not medical professionals. Dr. Naji considers a medical test (creatinine level) as the decisive factor in making the decision. This shows the ultimate strength of scientific evidence and that the test result (creatinine level) will ultimately affect the outcome, which, in a sense, reduces the level of subjectivity. However, scientific evidence is not only important. In another turn, Dr. Naji brings the patient to the fore rather than the family (lines 358–363). While telling them how he explains the situation to the patient, he has stressed ‘totally the whole situation’ to reinforce that he has provided a clear and comprehensive understanding of the treatment to the patient. Though, it may be difficult to prove that the patient has understood everything. Even if the patient has not objected to him or other doctors, the patient can be deterred from speaking due to their state of mind or the asymmetrical power relation between him and the doctor. This makes it difficult to verify whether the patient accepted and understood the medical decision. Dr. Naji’s insistence on having explained the situation may reflect his reluctance to be held responsible for the outcome or any possible treatment precautions or refusals as driven by the family. Furthermore, Dr. Naji continues to rely on the evidence from upcoming test results (CT in lines 359–360) to support his initial treatment choice. Knowing from the tests if ‘legions have decreased or not’ helps them in persuading the patient to listen to them. His use of discourse marker ‘just’ in line 360 indicates a desire for assurance regarding treatment effectiveness, since he only focuses on a decrease in legions rather than an increase in the disease. This shows the crucial role of medical tests in reinforcing the certainty of medical choices while it simultaneously reduces any hint of subjectivity and personalisation even though the tests need to be interpreted by humans/doctors and the human/doctors are the ones who formulate medical advice

However, he acknowledges that the final decision ultimately lies with the patient, not with the medical team, as indicated by his use of ‘if he agrees’ in line 362. Despite all his efforts to obtain the patient’s agreement, he remains aware that the family may still be involved in the decision-making process, as referenced towards the end. This Episode illustrates that while

medical professionals may not encounter difficulties in reaching treatment decisions due to reliance on scientific evidence from test results that consolidate their medical judgment. Thus, scientific evidence might be seen as certain. However, this is not always the case. In most cases studied (as detailed below), scientific test results remain open to negotiation.

Another challenge doctors face is persuading patients to listen to and follow their advice. This is not an unusual challenge for doctors as the literature on doctor-patient interaction reports similar challenges that pushes the doctors to have more discussions to get the patients on board with the decisions (Tate, 2020). This challenges any perceived assumption that doctors have the highest power in decision-making, as demonstrated in this example, the patient ultimately holds the power. Dr. Naji holds the decision-making power in the meeting since Dr. Noor directly addresses him regarding the start of the treatment in line 348, which also shows her acceptance of his expertise in determining the next course of action. Dr. Naji's power is attributed to his position as consultant in this institutional setting, and such setting is marked by power differentials and thus contribution to making a decision based on hierarchy (Wahlin-Jacobsen & Abildgraad, 2020). Consequently, this perpetuates the power status that the consultants have in making the decisions, as assistant consultants accept and rely on their epistemic knowledge and experience to guide them in patient treatment. The assistance consultants' acceptance aligns with studies where team of doctors such as training/junior doctors (Braak & Huiskes, 2022; Muragh & Benzemer, 2021) consider doctors at higher status as the reference and guidance in solving medical issues.

Episodes 1 and 2 show that unambiguous decisions are shorter and made relatively swiftly. Negotiations are minimal and mostly involve eliminating 'threats' to medical decision execution, such as family involvement. Doctors make a decision in an efficient way in an average of 18 turns in almost three minutes supported by three main sources of knowledge: current patient status, current results from medical tests, past 'success stories', which are also employed to lower uncertainty, reduce subjectivity and in consequence boost the justification decisions of doctors to increase their decision's validity (Hunink et. al, 2014). 'Current' means here around the point of time when the decision is being made. 'Current' can mean a few hours or a day but there is a shared understanding of unpredictability in that what is presented as 'current' in the meeting can quickly become 'past'. The conditional use of 'if' by Dr. Naji in Episode 1, despite the decision to discharge the patient, underscores the possibility that they might need to change the decision depending on 'ifs' The Episodes also reveal the importance of collectivity and shared responsibility in the decision-making process. In Episode 1, Dr. Naji references the involvement

of other doctors (who were not present in the room at the time) in the decision-making process, meaning that including the medical knowledge and expertise of other medical professionals constitute a major component in validating the final decision. In this context, the final decision is made not only by one individual, which enhances the validity and certainty of the decision. Thus, this shared responsibility among doctors, regardless of whether the outcomes are positive or negative, shows that they can still not completely eliminate uncertainty, despite test results, patient status and shared medical knowledge and expertise.

There is also the complexity in conveying shared decision-making especially when underpinned by the use of 'we', which is an inherently ambiguous pronoun, and which might in fact be used to silence others too. Thus far, in the Episodes analysed above, even though the decisions are unambiguous and fairly fast to make, they are not accompanied by exact certainty, which shows that in this medical context, any decision can suddenly be subject to changes as new situation and evidence arises. One interesting finding that has emerged from this study is that the unambiguous decisions were almost completely carried out through the English as a medium of PMC with almost no or very little use of resources from other languages, such as Arabic, which the doctors shared. This show that in cases that relies on high levels of certainty and does not involve dealing with complications, English is mostly used. This could be attributed to the fact that doctors are mostly exchanging transitional information that contain medical information. Unambiguous decisions in this study are termed 'unambiguous' since they do not exhibit conflicts or alarming uncertainty. English is the language of medical education for the doctors. Thus, it seems that they are comfortable exchanging medical information in English as it seems natural for them and positions English as the language of science and medical facts.

While unambiguous decisions are efficient and quicker to make, they presented only a small proportion of the data. In fact, most decisions were much more complex in nature requiring prolonged discussions and negotiations, in short more language work. As above, examples of such decisions are analysed and discussed below following the principles of genre analysis.

4.2 Complex decisions

Harder decisions are marked as decisions that include lengthier discussions involving on average 61 number of turns staring from the first the long turn that provides that patient's details and medical status and many more uncertainties and negotiations about the patient's treatment plans and the decision to be made. The data has instances of 18 episodes of what I termed complex decisions where the discussion exceeded 10 minutes. Figure 4 represents the genre analysis of this

category, which is accompanied by a detailed analysis of the same genre, doctor-doctor decision-making, that has a new variation. The Episode is segmented based on every Move.

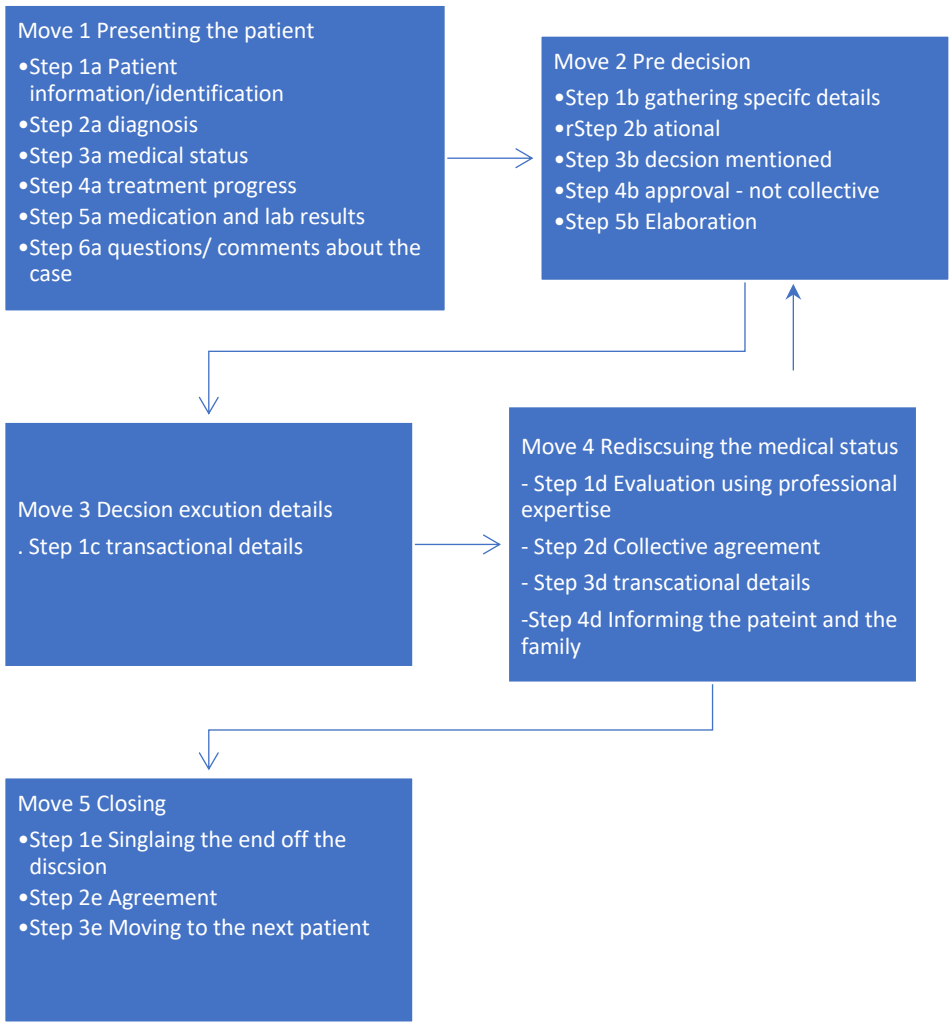


Figure 4 *Complex decision-making process*

Similar to the structure of unambiguous decision, difficult decisions start with Move 1 Presenting the Patient, which is followed by Move 2 Pre-Decision. However, there is a noticeable difference in the Steps in the Moves as they include more Steps with richer details. For instance, in Move 1, more questions are posed and answered about the case under discussion. In the unambiguous decisions, the same Move seems closer to a summary that does not evoke much discussions. Yet, in the case of complex decisions Move 1 provides details that frame anticipated complications or current ones. In the data, there are cases that has similar lengthier first Move , but they do not need a decision as the doctors simply tell the next shift doctors to continue monitoring the patient or the presentation is long just to provide a full picture of all the procedures done so far since in this department, they rely on continuous laboratory tests. Move 2, Pre

decision, has also three more Steps such as inquiries about specific details, waiting for initial decision approval, which once not received would lead to an elaboration Step that aims to justify the validity of the decision that was mentioned.

There are two new Moves in complex decision genre: Move 3 (Decision execution details) and Move 4 (Rediscussing the medical status). The main Step in Move 3 is explaining the transactional details such as administrative details about transferring the patient to another department or hospital. In Move 4, four Steps construct it. In the Steps, the doctors make an evaluation of the decision and the patient based on their professional expertise, seek collective decision agreement, discuss transactional details again and mention informing both the patients and their families of the treatment decision. The complex decisions genre is signified by a multiple cycling back and forth to Moves 2,3 and 4 till the doctors are finally ready to commit to a decision. Lastly, the Closing Move (Move 5) is similar to the unambiguous decision one with one extra Step that signals the end of discussion. This additional Step is part of the genre probably because the interaction takes more time and continues debates and arguments where this Step would indicate to all the doctors that there would be no need for further discussion.

4.2.1 Episode 3

Dr. Noor is providing the patient handover, who has progressed to an advanced stage in their diagnosis and simultaneously refuses to cooperate with the medical staff. This case provoked a discussion among the medical team, led by the consultants, to make a decision regarding the patient's situation.

Move 1 (Presenting the patient)

351 Noor = next patient Yousef in one zero three ahh CLL patient * with bilateral **
352 suspected second malignancy lung cancer ahh and right adrenal ** ahh
353 patient DNR since last week ahh due to progression of the disease in
354 spite off ah therapy فا ahh in in this last week patient deteriorating
spite off ah therapy *so* ahh in in this last week patient deteriorating
355 regarding chest function with refusing chest physiotherapy refusing oral
356 medication refusing suction and ah * فا he's full of secretions his chest is
medication refusing suction and ah * *so* he's full of secretions his chest is
357 so bad and full of secretion chest x-ray is also: worsening ah we
358 contacted with his family and today his brother come and see him but

359 patient was not يعني not conscious all the time he sometimes lose * he's
patient was not I *mean* not conscious all the time he sometimes lose * he's
360 ah more sleepy ahh but now patient and chest conscious و oriented he's
ah more sleepy ahh but now patient and chest conscious *and* oriented he's
361 يعني giving orders and ahh talking if he want to take water or food or say
I mean giving orders and ahh talking if he want to take water or food or say
362 anything فا he's now on GCS is better يعني but still he's ahh his chest
anything *so* he's now on GCS is better *I mean* but still he's ahh his chest
363 طبعا is so bad and he refusing <u>all</u> his oral medication يعني since last two
of course is so bad and he refusing <u>all</u> his oral medication *I mean* since last two
364 days no abrotanin no: no medication even neutralizers he is refusing
365 since physico came <u>twice</u> yesterday even doctor Nader called them to
366 put him on validad to remove ah and * طبعا refused/ [chest *]
put him on validad to remove ah and * *of course* refused/ [chest *]
367 Saad / [**] DNR case شويه ال case=
/ [**] DNR case *a bit this* case=
568 Noor = ahh because he was desating *
(line omitted due to unclear audio)
369 Noor = non invasive =
370 Naji = مادام under floor ** /
= *as long as* under floor ** /
371 A doctor / [but *****]
372 Noor [he refuse patient refuse he remove خلاص he:]/
[he refuse patient refuse he remove *already* he:]/
373 Naji / single patient is telling us what to do=
374 Noor = [اه فا]
= [*yes so*]
375 Jaber = [بال attitude] * بتاعه مش حيستحمل ال =
= [*with this* attitude] *he will not tolerate* *=
376 Noor = ahh [he refuse he remove the mask]
377 Jaber [***]
378 Noor و remove ال even the oral medication /[and he's shout on nurses]
and remove *the* even the oral medication /[and he's shout on nurses]

379 Saad / [وقف ال*?]=

/ [*did the * finish*?]=

380 Jaber = هوا موقفه =

= *he stopped it* =

Similar to the Episodes of unambiguous decisions, Move 1 in Episode 3 starts with Presenting the patient. However, this Move is more extensive than unambiguous decision scenarios, the Episode had 65 turns that lasted for ten minutes. Steps 1a and 2a involves providing information identifying the patient and their diagnosis (lines 351–352). Step 3a includes providing a detailed description of the patient's medical status development (lines 353–366, 372 and 376). The language used in this step reveals that the case is critical. For instance, Dr. Noor informs the doctors that the patient is at a 'DNR' (do not resuscitate) status due to disease progression. She has also emphasised that the treatment has not stopped the spread of the disease, stating 'deteriorating despite therapy'. This can represent a contextualisation cue for reporting that the treatment is ineffective or, in this case, not working (Dew et al., 2015). Other cues showing that the patient's status is bad are terms such as 'deteriorating' and 'worsening', which clearly signal that the case may have reached an untreatable stage. Part of Move 1 includes reporting the patient's non-cooperation with the medical team, which is critical as it provides insight to doctors into the patient's mental state and its effect on treatment (Dew et al., 2015).

Move 1 also includes reporting medications and lab results. Apart from Step 1a identifying the patient and medical diagnosis (Step 2a), the other parts (medical status, progress, medications and lab results) constitute the following Steps without a particular fixed order. An important part of Move 2 is doctors (consultants in this case) initiating questions and comments while the handover is ongoing. For instance, Dr. Naji interrupts Dr. Noor in line 373 to express dissatisfaction with the patient's defiance of medical authority. His comment 'a single patient is telling us what to do' emphasises the disagreement between one patient and the community of the medical team highlighting that in the view of the consultant, the medic has a higher epistemic status and therefore their recommendations need to be followed. Dr. Jaber's (consultant) comment about the patient's attitude in line 375 seems like a medical evaluation, suggesting that the patient cannot continue the treatment. Dr. Noor responds by providing explicit information that the patient's actions are counterproductive to treatment efforts. Even Dr. Saad, the department head and consultant, enquires about a specific treatment, with Dr. Jaber responding that it was the patient, not the doctors, who discontinued the treatment.

In Move 1, the language employed serves to frame that the situation is reaching a point where treatment cannot continue (Dew et al., 2015). Dr. Noor mentions that the case is 'deteriorating' despite their treatments, indicating that the condition may not be treatable. Moreover, there is significant reliance on the patient's reaction. The frequent use of the verb 'refuse', nine times in total, may aim to clear the medical team of responsibility, since the patient has constantly refused to cooperate with them. This suggests that the doctors recognise that, as medical professionals, they have exhausted their ability to help the patient, which leads to Move 2, Pre-decision. During the meetings, I noticed that more than one doctor takes notes. They vary between doctors taking the next shifts and other that might not be taking the next shift. This indicates that the notes would probably be part of the medical records of the patients. It is probable that such emphasis on the refusal would be part of their reports to justify decisions on the record.

Move 2 (Pre- decision)

381 Saad = لا لا { Jaber laughs} فيه شي نوقفه عشان احوله لل [palliative[3]] و يتحول لل

= *no no* {Jaber laughs} is *there anything we need to stop so that I transfer him to* [palliative] *and he gets transferred to*

382 Noor [palliative] [I will do * report

383 today * report today doctor]

[Saad and Naji and Jaber talk at the same time with each other]

384 Jaber = هوا رافض كل حاجة =

= *he is refusing everything* =

(line omitted due to unclear audio)

385 Saad ** يعني clinically he is deteriorating?=

** *so* clinically he is deteriorating?=

386 Noor = [deteriorating يعني in the morning أصلا doctor Nader*******]

= [deteriorating *I mean* in the morning already doctor Nader*******]

387 Jaber [اه deteriorating هوا مبدأيا ال chest * سامعها هوا (0.1) و لا عايز يخف و لا هوا

[*yes* deteriorating *to begin with the* chest * *he hears them* (0.1) *and he does not want to recover and he does not*

388 عايز حد يخبط له على سدره]

[3] Palliative care is meant for patients who have life-threatening disease such as cancer. It is meant to improve the quality of life of the patients not the disease as it helps in dealing with disease side-effects and care for the patient mental and physical health.

want anyone to pat his back]

The Pre-decision Move in complex decisions is a crucial moment taken by the consultants, which continues to contribute to the epistemic power status they uphold in controlling decision outcomes (Mesinioti, Angouri & Turner, 2023). In this Episode, Dr. Saad assumes control of Move 2 despite not being asked for input to the next steps. This response can be anticipated given the information from the first Move, which made it clear that the medical team must find a solution while dealing with the patient. In Step 1b, Dr. Saad requests specific details to add further clarification regarding their treatment duties with the patient, which gives the question a K- knowing status (Mesinioti, Angouri & Turner, 2023). The question does not diminish Dr. Saad medical expertise because in medical context, questions are used to fill in any gap about the case prior to making significant Moves, which decision in this case (Arber, 2008; Drew, 2018; Masic, 2022). Dr. Saad directly enquires if the medical team needs to stop any ongoing medical treatment first, justifying this enquiry in line 381. Within the same step, he provides a rationale announcing that he has reached a decision, that is, to transfer the patient out of their department and into the palliative department. Dr. Saad openly asserts his authority in the decision-making process by stating, 'I transfer him'. Using a declarative statement affirms his authority as the head of the department, potentially making the Pre-decision difficult to contest. The next Step, which is Dr. Noor's response to this order Step 4b, indicates her approval of the decision. She first repeats 'palliative', indicating that she agrees with his transfer choice and promptly expresses her intent to work on the transfer report, further indicating her acceptance of the pre-decision.

Despite Dr. Noor's agreement, the discussion continues. This adds another Step to this Move, which is elaboration Step 5b. When Dr. Jaber emphasises that the patient is uncooperative, to clear themselves from responsibility and further problems related to treatment, Dr. Saad poses a 'yes or no' question while using medical status details in line 385. He asks 'so clinically, he is deteriorating?'', framing it as medical evidence supporting his decision to transfer the patient, to which both Dr. Jaber and Dr. Noor agree, while providing additional information about the patient's refusal of help. 'So' is used to lead to a fact that invokes an action (Schiffrin, 1984) and the question has a K+ status as it carries the function of confirmation (Mesinioti, Angouri & Turner, 2023). Thus, unquestionable medical evidence is an important element in supporting difficult decisions, as it clears the medical team's responsibility and explains why they can no longer treat the patient.

Move 3 (Decision execution details)

389 Saad = خلاص يعملوا له transfer back :ان شاء الله يوم ال=

= *then they* transfer *him back by Allah's will on the:* =

390 Noor = يوم الاحد انا حاجهز له ال medical report النهار دا ان شاء الله في ال call او يوم السبت

= *on Sunday I will prepare the medical* report *today by Allah's will on the call or on Saturday*

391 تعمل له يعني اكلم اهله و نعمل transfer لل palliative يوم الاحد يعني] يعني قابلت ال

you do it I mean talk to his family and we transfer to palliative *on Sunday I mean [I mean I would have met the*

392 family meeting و كدا]

Family meeting *and so*]

[several doctors talk at the same time]

393 Noor = دا ممكن ما يتقبلش ?=

= *is it possible that they do not accept him*?=

394 Saad = * لا لا =

= * *no no*=

395 Noor = * palliative=

396 Saad = هوا جانا من مدينة * صح؟ =

= *he was transferred from city X right?* =

397 Noor = من مستشفى * =

= *from hospital X*=

398 Saad = *[**] ال register على طول * هنا سألوه =

= * [**] *the* register *here asked about the * immediately*=

399 Noor = [طيب خلاص]

= [*ok done*]

400 Naji [*ال] * absent =

[*the* *] * absent =

401 Noor = ما طلعش لسه =

= *it did not come in yet* =

402 Jaber = بس ال * كدا: برضه =

= *but the * is also the same* =

403 Noor =CLL=

404 Jaber = ** شايف ال =

= *you saw the* **=

405 Noor = ** و زياده انا شايفه * دا الأول اه =

= *this is the old one yes * and also I see* **=

406 Naji = ** disease * therapy =

Move 3, which revolves around discussing the execution of the decision, mostly includes details on the transactional aspect of the decision. The questions serve the function of confirming details about the paperwork they need to manage. However, in the subsequent Move (Move 4), the doctors again discuss the patient's medical status, indicating that even though they expressed agreement with Dr. Saad, no one opposed or offered a different opinion, they still need to guarantee the validity of the decision.

Move 4 (Rediscussing medical status)

407 Noor = [in spite of development]

408 Jaber [هوا developed] بس حتى لو فيه عنده tumour ten فا في الوضعيه اللي هوا فيها

[*it it* developed] *but even if he has* tumour ten *at the status that he is at*

409 دي =

now=

410 Naji = he is not fit for therapy =

411 Noor =اه=

= *yes* =

412 Saad = نوضح انه * خلاص يعني حنوقف و there is more * he is <u>unfit</u> =

= *then this means we stop and * explain that* there is more * he is <u>unfit</u> =

413 Noor = mm =

414 Saad = ** خلاص full support *=

= ** *already* full support * =

415 Noor = خلاص انا حاعمله في during the weekend النهاردا او بكرا بالكتير حيكون ما فيش

= *ok I will make it* during the weekend *today or maximum tomorrow there won't be*

416 transfer ذاتي =

internal transfer =

417 Saad = ايوه =

= <u>yes</u> =

418 Noor = مع ال * =

= *with the* * =

419 Saad = يوم الاحد نرسله يصير ان شاء الله يعني خلال أيام كذا * =

= *on Sunday we send it by Allah's will I mean within few days* * =

(line omitted due to unclear audio)

420 Noor = لو مو لو رسلناه في ال weekend مش حي مش لو ارسلناه في ال weekend

= *so if if we sent it on the weekend they won't if we sent it on the* weekend

421 = مش حيقبلوه؟

they won't accept him? =

(two lines omitted due to unclear audio)

422 Noor = يقبلوه صح=

= *they will accept him right* =

(line omitted due to unclear audio)

423 Noor = او ممكن نعمله من ورا ال =

= *or we can do it after the* =

424 Saber = لو ارسلته في الweekend يعني أصلا=

= *if we sent it on the* weekend *I mean already* =

(line omitted due to unclear audio)

425 Noor = يعني =

= *I mean* =

(line omitted due to unclear audio)

The first step in this Move (Step 1d) includes the consultants expressing their professional opinions about the patient's case. In line 408, Dr. Jaber hedges his opinion by saying 'at the status that he is at now' to explain how the patient's uncooperativeness can complicate any treatment. Dr. Naji's response affirms this, as he states that the patient is 'unfit for therapy', which is also agreed upon by Dr. Noor. Dr. Saad uses the consultants' statements to reinforce that this information will be included in the medical report. This indicates that consultants rely on joint agreement among the consultants to make a decision, demonstrating that medical expertise is complemented by medical facts to increase decision certainty. Given that this case necessitates the termination of any treatment for the patient, but treating a patient is the most important priority for doctors – something that they pledge by, it is interesting to observe that in this case in particular, they seek a joint agreement in validating the decision. The next Step (Step 3d) includes

another transactional discussion about the timeline for transferring paperwork and procedures, spanning from lines 415 to 425. During this part, Dr. Saad adds a specific day, ‘Sunday’, on line 419 as the deadline for sending the transfer paperwork, thereby reinforcing his hierarchal status by deciding on this detail. This has led to another Step (Step 4d) in which the doctors aim to update the patient’s family about the case.

426 Naji = ال brother knows the situation Noor ال [brother]
= *the* brother knows the situation Noor *the* [brother]
427 Noor [اه]
[*yes*]
428 Naji =know the sit_ brother knows the situation and he’s accepting =
429 Noor = ال brother جي النهاردا visit him فا when he visit him he was totally not
= the brother came today visit him so when he visit him he was totally not
430 this one/
431 Naji / يعني قصدي he accepts [the critical situation *]
/ *what I mean* he accepts [the critical situation *]
432 Noor [ايوه I told] him it’s not * ours=
[*yes* I told] him it’s not * ours=
433 Saad = حنا يعني: نحتاج نكلمه حنا will transfer him back * فلازم /
= *I mean we: we need to talk to him* we will transfer him back * *so we need* /
434 Noor / أتكلم مش مشكله =
/ *I will have the talk no problem* =

Dr. Naji utilised three turns (lines 426, 428 and 431) to ensure that the patient’s brother is fully aware of the situation and, more importantly, accepts the outcome. Despite Dr. Noor mentioning that she has informed the brother, Dr. Saad adds that they, possibly referring to the consultants, must communicate with either the patient or his brother. Given that the decision implies that the patient may not survive, it appears that the consultants want to ensure their involvement in communicating with the family. They were using their authority and status as consultants to show the patient and the family that they have considered the case carefully before making the decision and to show that they have made every effort to care for the patient. This contrasts with Episode 2, where family intervention is dismissed, because no further treatment is

available for the current patient. Meeting with the family in this case may answer any questions they may have.

Move 5 (Closing)

435 Saad = *=

436 Noor = لو جاله acceptance =

= *if he got* acceptance =

437 Saad = و حتى لو قبل =

= *even before* =

348 Noor = تمام (0.2) طيب Mona in one zero <u>four</u> patient ** old is

= *ok* (0.2) *so* Mona in one zero <u>four</u> patient ** old is

In this last Move, when Dr. Noor mentions waiting for approval to initiate the transfer process, Dr. Saad insists on starting the paperwork without delay. Dr. Saad's use of 'even' eliminates any conditional response that may keep their department waiting to begin the transfer procedure, effectively terminating any further discussion. In response, Dr. Noor agrees, and they proceed to the next patient.

Throughout this Episode, Dr. Saad's epistemic status, represented by his medical knowledge and position as the head of the department, is noticeable (Heritage, 2012; Mesinioti, Angouri & Turner, 2023). Dr. Saad utilizes several linguistic devices such as declarative when he said, 'I transfer him' to make it clear that he is making a final decision that will not be argued against. He also used several yes/no questions that gave to answers he was seeking while limiting the response so it will not lead to long elaborations. The yes/no questions are framed to include the medical status that validate his decision when he said 'so clinically, he is deteriorating?''. Dr. Saad not only announces the decision but also details the execution of the decision, with others agreeing and complying with him. He refused openly in line 437 to any delay or waiting for the other hospital to accept the referral. He insisted that the staff starts the transfer procedure immediately, which indicates that he is aware that since he is making the decision, it will not be argued against from the other hospital that would receive back the patients especially that he is using medical facts that does not give the hospital a chance to refuse the transfer. However, data from other Episodes do not indicate such heavy reliance on his power. This can be because they are terminating a patient's treatment, which requires a strong justification and willingness to voice and accept the consequences of the decision, which ultimately might be death. Although they

operated as a team in discussing this decision, Dr. Saad is the one who articulated it, mentioned transactional Steps and provided deadlines for execution. This demonstrates his experience of both the medical and transactional information related to the case under discussion. The next Episode focuses on the same patient but from a previous meeting. While discussing what is needed to be done for the patient, Dr. Saad adopts a different approach to contributing to the decision, which will be discussed after analysing the Episode.

4.2.2 Episode 4

Dr. Nader, an assistant consultant, reports the case of a patient suspected of having a second malignancy due to his unstable condition despite receiving highly escalated treatment. He mentions that the patient is dealing with side effects from an infection, which has begun to improve. The doctors are waiting for the laboratory results to confirm the presence of the second malignancy and to assess the treatment infection. Furthermore, they discuss suitable treatments based on future results. The timeline difference between Episodes 3 and 4 is one week. Episode 4 occurred first, although the analysis started with Episode 3 to present an example for the extended genre, especially since this Episode included two decisions. There were 49 turns in this Episode. However, there were not the total turns as lines were omitted because overlaps made it difficult transcribe in moments.

Move 1 (Presenting the patient)

The first Move continues to follow the same Steps that the doctors use while presenting the patient and answering questions from other doctors about the case.

262 Nader = ah next patient in room one zero three Nasser Yousef case of CLL ah he
263 is post * today is day th_ thirty after * ah dose dose escalated to * twenty
264 on twenty six of January (0.2) ah patient already: suspected to have
265 second malignancy ah a new biopsy from the left auxiliary * taken so we
266 follow up the final results ah actually ID was prescribe * vancomycin
267 because the patient have MRSA[4] and patient was desatting but actually
268 patient now is afebrile stable off oxygen so: they recommend ahh to:
269 follow the culture from the plural fluid if negative we'll stop vancomycin

[4] An infection causing bacteria that does not respond to many types of antibiotics.

they also: update the recommendation to be ah leave vancomycin * fifth
of February but actually vancomycin level was thirty so we hold
vancomycin level we'll repeat vancomycin ah six pm and will repeat lab
because actually patient m_ this morning we we did not ah withdraw lab
(0.1) so the weekend will follow the vancomycin level if if if vancomycin
below twenty we'll resume at lower doses and also till fifth of February=
Noor = ال meropenem وقفوه خلاص؟ =
= the meropenem *did they stop it already*? =
Nader = اه stopped ***
= *yes* stopped ***

Move 2 (Pre- decision)

In this pre-decision Move, Dr. Naji starts with Step 2b, providing a rationale based on the medical status. This illustrates how the Steps in difficult decisions can vary depending on the discussion.

Naji so ah (0.1) the issue in * this both veins are still draining he had only
the left side now he has the right side * we cannot * he's bedbound
he does not he is not cooperative he does not even sit on the bed and
he has a lot of secretions/
Nader /yah code status /
Naji / he will: ah end up developing
pneumonia and we have max_ maximize his: CLL therapy which has
respond in the form of some lymph node shrinking now he definitely
has something else we did a biopsy two days ago CT guided ultrasound
guided ah * biopsy but I think he should be no code so: we do
maximum what we can on the floor but this patient should not go to ICU
Nader mm=

This step of the episode shows how two factors influence the decision-making process: power in the form of a hierarchal status and epistemic (K+) status. Dr. Naji initiates the decision discussion by first providing Pre-decision justifications with recent information about the patient's condition (lines 278–281), asserting his power status determined by his position as a

consultant. Dr. Naji uses ‘so’ to preface information about the patient and share it with others. While he has initiated the discussion, his hesitation using ‘ah’ combined with a pause in line 278 is a sign of discomfort because it is followed by the words ‘the issue’ to mention the patient’s problems. While doing so, Dr. Naji stresses several words, such as ‘this’ (line 278), ‘he’s’ (line 279) and ‘sit’ (line 280), to emphasise each mentioned point. Given that the information he provided about the patient is not positive, as he has highlighted several issues, Dr. Nader (assistant consultant) interrupts him and guesses that the patient is at code status. A code status means that the patient’s heart can undergo cardiac arrest, which requires resuscitation based on the patient’s request. Dr. Naji ignores this interruption and assessment and responds by interrupting Dr. Nader to give his prediction about the patient. He mentions the latest medical tests and positive developments, such as ‘shrinking’ of the lymph nodes in line 285. Thus, progress has been made against the code status assessment.

Lines 283-287 demonstrate the K+ status of Dr. Naji, evident in his prediction of the patient’s case development, and this can explain why in the previous lines, he mentioned the issues about the patient to support his prediction. Using his medical expertise combined with evidence from medical tests, Dr. Naji has predicted pneumonia with certainty by using and stressing ‘will’ (line 283). Interestingly, Dr. Naji employs and stresses the intensifier ‘definitely’ to express strong certainty of an unknown problem with the patient. He has even used and stressed ‘something else’, which indicates that he believes a problem is not detected despite the tests mentioned in lines 286 and 288. Dr. Naji has used the same tests to justify his disagreement with Dr. Nader’s ‘code status’ assessment. However, this disagreement is both stressed and hedged, as he has used ‘I think’ in line 287. He stresses that this is his medical opinion based on their current details, since so far, the patient’s condition has not yet stabilised, making it difficult to guarantee that he will not be in a code status condition. Hedging indicates uncertainties (Zayts, Sarangi &Schnurr, 2016) because the tests have not conclusively detected the problem. Dr. Naji finally mentions the decision using the discourse marker ‘so’ in line 287 to introduce the decision that declared the need to use all their resources for the patient. During this part of the Episode, Dr. Nader’s responses agreed with Dr. Naji in his use of ‘yah’ in line 282 and the minimal response ‘mm’ in line 289. This part of the Episode shows a similarity in the decision-genre analysis with unambiguous decisions in the Presentation stage and the Pre-decision stage.

As Dr. Naji has not received a collective agreement from the consultants, which is the expected step to his decision, rather than elaborate on his point, he initiates therefore the next Move, which leads to a discussion of the patient’s medical status. Unlike Episode 3, this

Episode skipped Move three, demonstrating that complex discussions may deviate in Moves as the discussion progresses.

Move 3 (Rediscussing medical status)

In this Move, Dr. Naji asks about the opinions of the other consultants, Dr. Saad and Dr. Jaber, despite expressing his opinion on the treatment course.

290 Naji = amm he's just ah would be * I I don't know what the other
291 consultants think=
292 Nader = * doctor Saad
293 Saad اسمعوا رأي محايد {Jaber and another doctor laugh}
Listen to an impartial opinion {Jaber and another doctor laugh}
294 Jaber والله: انا I think :يعني /[*]
I swear to Allah: I I think *this means:* / [*]
295 Noor / [* هوا ال] * not responding even if total *
/[*Because the* *] * not responding even if total *
[overlap as Nader and other doctors talk in the background]
296 ال bilateral *mass * progressed فيه كمان another [rare * mass increased=
the bilateral *mass * progressed *there is also* [rare * mass increased=
297 Nader [* medication in the chest]
298 Noor = right adrenal mass] /[right adrenal mass]
299 Naji / [* what] I am suggesting to do everything we <u>can</u>
300 chemo whatever on the floor=
301 Jaber = يعني هوا حيزيد chemo?=
= *so he will increase* chemo=
302 Nader = mm=
303 Jaber = two cycles /[**]
304 Noor /[هوا خاد] RCTP و still on * on high doses four hundred and
/[he too]) RCTP *and* still on * on high doses four hundred and
305 twenty / [*]

Dr. Naji demonstrates his interest in hearing their perspective by giving them a conversation turn, directly asking them for their opinions in lines 290–291. Despite providing his

decision, Dr. Naji expresses uncertainty, hesitating with ‘amm’ in line 290 and softening his request for other consultants’ inputs by stating his lack of knowledge ‘I don’t know what the other consultants think’. He seeks medical knowledge and expertise from others to support his choices. This turn by Dr. Naji switches his status to K- as it reveals a threat to his epistemic primacy (Mesinioti, Angouri & Turner, 2023) as he changes his position to seeking the support from the other consultants.

While the turn is directed at both consultants, Dr. Nader asks Dr. Saad about his opinion on the matter. Dr. Saad, the head of the department, has evaded the question using humour in line 293, as he sarcastically asks them to seek a partial opinion, which provokes laughter from Dr. Jaber and another doctor. Dr. Saad has not provided his professional medical opinion. His evasion indicates that he disagrees with Dr. Naji or that he may not be convinced; however, at the same time, he has not relinquished the power of his position, as he redirected the turn to Dr. Jaber by telling the doctors to ‘listen to’ in line 293, which is an order. Although the order does not include Dr. Jaber’s name, he is the only consultant at the time besides him and Dr. Naji. Dr. Saad manages to avoid the face-threatening situation of disagreeing with Dr. Naji, while forcing Dr. Jaber to decide using humour. This evasion forces Dr. Jaber to either agree or disagree with Dr. Naji and to become more responsible for the final decision. Since this situation is a discussion about a critical patient, laughter is not humorous, but rather a laugh due to discomfort (see Section 6.2.2 Episode 8). Dr. Jaber then hedges using the religious oath ‘I swear to Allah’, as he contemplates his answer in line 294. His use of the oath is not to validate his opinion, and his hesitation to talk fast is shown, as he elongated most of his words to buy time to think more carefully about his answer. This hesitation indicates uncertainty about the case (Zayts, Sarangi & Schnurr, 2016) and opens a space for others to ‘jump in’. Dr. Noor takes this opportunity as she interrupts in lines 295 and 304 to take part of the discussion and show that she disagreed with Dr. Naji’s suggestion. The next Step includes an elaboration on the patient’s medical status (Step 4b). Thus, this Step may not be a necessary part of the second Move—Pre-decision—only. It may appear at other Moves as well, because it provides additional details about the discussed case.

Dr. Noor, an assistant consultant, interrupts Dr. Jaber to provide more information on the severity of the patient’s condition based on her knowledge of the records and the patient’s case. Despite her report, Dr. Naji interrupts her to repeat his previous opinion. This repetition and interruption show that Dr. Naji is determined to execute his treatment option, even as he formulates his opinion as a suggestion in line 299. What may have driven Dr. Naji to do so is the absence of open opposition from the other consultants or alternative treatment options being

presented. In contrast to previous Episodes, the assistant consultants interrupt the consultants to provide information that questioned Dr. Naji's decision. For instance, Dr. Noor interrupted Dr. Jaber in lines 295 and 304 to argue that the patient has taken several medications that did not improve his medical condition. This interruption may be caused by several factors. There was not a clear agreement from the other consultants that support Dr. Naji's decision. Additionally, medical evidence so far was not positive since the language used, such as 'mass progressed/increased', reflects negative developments. Importantly, Dr. Naji interrupts them to reinforce his initial suggestion, indicating his refusal to accept their interruptions.

Move 4 (Pre-decision)

As the discussion progresses, Dr. Nader proposes two decisions, both of which include a DNR option. The assistant consultants support this choice with medical information to justify it, but Dr. Jaber disagrees and argues against it. This Move has cycled again to the pre-decision stage.

306 Nader / [**] put in DNR but if confirmed second malignancy palliative=

307 Jaber = لا لا مافيش اه لو طلع malignant =

= *no no it's not oh yes if it became* malignant=

308 Naji= second malignancy palliative * =

309 Nader = but if just DNR /

310 Jaber / بس: عايز أقول لك و لو second malignancy

/But I want to tell you even if the second *biopsy shows* malignancy

311 ما يتعالجش الا لو حاجة بسيطة

its only treated if it's a minor spread=

312 Noor [مش بسيطة عنده دا static right adrenal gland] ahh

=*[It's not minor he has* static right adrenal gland] ahh

313 [two doctor are talking]

314 Jaber لو lung cancer يعني =

= *then this is* lung cancer=

315 Noor = ايوه =

Yes

316 Jaber= ما ممكن يدوله /[*]

= *maybe they would give him* / [*]

317 Nader / [*] لو كان فيه * mutation **=

/ [*] *if there is* * mutation **=

318 Jaber = نعم حيعملوا له ** [بس ممكن *]

= *Yes they will do* ** [*but maybe* *]

319 Noor [***] [**]

320 Nader [**]

321 Jaber ما تستعجلوش {laughs} دا قرار اعدام [ما تستعجلوش] ما تستعجلوش يا جماعة

Don't rush the decision people [don't rush it] this is an execution

{laughs} *don't rush it*

322 Nader [ايوه]

[*yes*]

This Move includes power defiance, as the assistant consultants began advocating for a DNR option for the patient. Move 4 includes a rationale as Dr. Nader associates another malignancy with the decision to transfer the patient to palliative care. This rationale leads to a collective agreement, as perceived by Dr. Naji and Dr. Jaber, who did not oppose Dr. Nader's suggestion to transfer the patient to palliative care in the event of a second malignancy based on biopsy results. This shows that the consultants are willing to consider decisions made by assistant consultants when supported by medical facts, such as test results. Medical tests, in this case, provided the necessary evidence to accept the option even though it comes from lower ranks. Although parts of the transcript are unclear due to noises outside, it still appears that Dr. Nader (assistant consultant) is advocating for DNR before receiving the test results, which Dr. Jaber (consultant) has opposed, explaining that the patient can still receive treatment. Their response is an elaboration Step (Step 5b), as Dr. Jaber provides different possibilities, which shows that he wants to convince Dr. Noor (assistant consultant) and Dr. Nader that the patient can still be treated, even with the knowledge that the patient is terminal. In lines 316 and 318, he uses 'maybe' to show that the patient still has a treatment chance in palliative care. The use of the hedge 'maybe' is a sign that Dr. Jaber is not completely certain that the patient will be treated; however, he seems to prefer that scenario than to deprive the patient of a chance to be treated.

The responses from Dr. Nader and Dr. Noor are not clear in the transcription, but it appears that they did not accept Dr. Jaber's judgment. In response, Dr. Jaber employs humour in line 321 to warn them that their choices are dangerous. His laughter is stressed, as his word choices include 'don't rush' and 'execution'. He expresses a warning them that they may kill the patient, even though the patient's condition may lead to that circumstance. This shows that Dr. Jaber wants the

assistant consultants to carefully consider such critical decisions, showing that he and the other consultants are willing to listen to them and include them in the decision-making process. At the same time, Dr. Jaber efforts were in favour of helping the patient, something that doctors are obliged to do based on the Hippocratic Oath. The oath binds the doctors to exhaust all their medical knowledge to help the patient and stress that doctors must avoid harming the patients. Thus, the fact that Dr. Jaber presented options to treat the patient even as the case shows deteriorations, and his warnings can be considered as a reminder for the doctors to abide to the professional obligations that they swore to follow. This Move has several overlaps in this conversation (lines 312- 313- 216 till 321) that indicates problematic communication, which in this case is represented in the assistant consultants' disagreement with the consultants' decision to reject the DNR option and continuous efforts to treat the patient. The assistant consultants' interruptions and objectives are based on the patient's medical status that shows progress in the disease.

Move 5 (Pre-decision)

In this Move, the assistant consultant repeated the Pre-decision Move (Move 2).

323 Naji **/ [**]

324 Noor /[it's not] fair for: the chemotherapy ready is not hypertensive/

(several doctor talk at the same time)

325 Mohsen we can do we can do: ال: DNR form over the weekend يعني keep him for

we can do we can do: *the*: DNR form over the weekend *I mean* keep him for

326 * if he's tolerating it's not **=

327 Naji = so this is wrong =

328 Jaber = ما تقدرش ما تقدرش =

= *you cannot you cannot*=

329 Naji = you should not do: a DNR decision on a deteriorating patient =

330 Jaber = mm=

331 Naji = that's wrong this is where all the law suites <u>happens</u> and this is what the

332 physician loses انه at that point driven by resources not by the patient

physician loses *because* at that point driven by resources not by the patient

333 condition <u>here</u> am just driven but by his condition if he arrest <u>now</u> there's

334 <u>slim</u> chance that he will go back or you can bring back =

335 Jaber = **=

336 Saad = *=

337 Jaber = هوا حتى لو طلع معاه lung cancer اللي بت: الادويه ال: من حاجه حيدوه و target

= ** *even if it turned to be* lung cancer *and they give him some of the: medications the: the ones that* target

338 بس * معينه او حاجه you can give him و هوا لو كلام cancer ما

*only * specific or something* you can give him *and if this about* cancer *you*

339 تقدر ما تتحمل ما توديهوش ال ICU برضه لانه لو طلع lung cancer مش حيروح لل ICU

cannot be responsible you cannot send him to the ICU *also because if it is* lung cancer *he will not go the ICU*

340 (0.4) and I think yes (0.3)

In this part, the consultants again utilise their epistemic knowledge status and hieratical position, combining it with legal facts to deter the assistant consultants from considering the DNR option. The Pre-decision Move is reiterated, as Dr. Noor provides a rationale in line 324, citing the patient's condition. While her argument is not clear due to overlapping conversation, it indicates a lack of concession on how to proceed with the patient. Thus, no collective agreement has been reached. When another assistant consultant, Dr. Mohsen, suggests the DNR option again, the consultants show a different reaction. They did not accept this option but expressed this in different ways. Dr. Naji delivers a strong face-threatening response by first saying that the decision is 'wrong' (line 327), which he emphasises by repeating in line 331. This repetition is followed by a strong justification in lines 331 to 334, based on the laws and medical ethics involved in making this decision and letting the assistant consultants know that they are not considering treating the patient, which should be their priority. Importantly, he points that the severity of the case entails that he may not recover if he arrests without resorting to DNR. He stresses the 'slim chance' in line 334. Dr. Naji did not want them to be blamed if they did not resuscitate the patient, especially because his condition can lead to death. He indicates that the use of DNR is a major ethical and medical error. Dr. Naji aims to protect the rights of and preserve the life of the patient, since this is their job as medical professionals.

Dr. Jaber has code-switched to Arabic to express his disagreement (line 328). He has switched to Arabic multiple times during the conversation; however, the switch serves to deliver a message that cannot be misunderstood. He has already used humour to deter the assistant consultants from considering the DNR, but it did not work, which leads to a direct disagreement.

Unlike Dr. Naji, he softens his disagreement by providing further explanations of how the patient can still be treated. Thus, he relies on the human and professional ethics of their job. He concludes by supporting Dr. Naji's earlier decision in line 339 of not taking the patient to the ICU, indicating that he agrees with Dr. Naji, who has mentioned this point from the beginning. Not sending patients to the ICU means that they can continue to treat them. This can be considered as an agreement with Dr. Naji's decision. He tells Dr. Mohsen, 'you cannot be responsible' (line 339) for sending the patient to the ICU, which means that that choice deprives the patient from being treated at their department. At this point, the consultants assert eliminating the assistant consultants' efforts to use the DNR option. While the consultants represented different reasons that advocated helping the patients and eliminating the DNR option, their turns where extended and uninterrupted by the assistant consultants. The turns reinforced the K+ power of the consultants based more on the medical knowledge that they backed their reasoning with rather than relying on their hierarchical position. This Move has limited the epistemic primacy of the assistant consultants.

Move 6 (Closing)

This is the Closing Move in the discussion.

341 Jaber بس: هل هوا بيجيله حد ما اهله عشان نكلمهم =
but: does he have family members visiting so we can talk with them=

342 Naji = والله ما شفت =
= I swear to Allah I did not see =

343 Nader = **=

344 Noor = كان بيجيله اخوه و بطل لانه اتنحجز فوق في ال neuro جاله stroke
his brother used to visit him and stopped because he got detained upstairs at neuro *he had a stroke*

345 او حاجه ابن اخوه بطل يجي يسأل عليه ** هوا اخر مره كان كلمونا في ال discharge
*Or something his nephew stopped coming and asking about him ** the last time they called us from the* discharge

346 و انه حاولوا انه انتو توفروا له مكان و كدا فالظاهر: قفلوا القصه يعني ممكن كمان ال
And {verbatim} you try to find him a bed and something like this so apparently: the story ended maybe the

347 social * تتواصل معاهم (0.6)

Social could contact them * (0.6)

…

They Moved to the next patient

Dr. Jaber initiates the Closing Move by expressing the need to reach out to the patient's family to inform them of his condition. The Step is part of the complex discussion genre and having it in the closing phase shows that some Moves may not have a fixed order of Steps; however, they are necessary to add in the complex decision genre. Dr. Jaber wants to talk to the patient's family, to break the bad news about the patient's condition. When he asks about the family, Dr. Naji uses the oath 'I swear to Allah' in line 342 to say that he did not see them. He is not under the oath or responsible for not seeing any family members. This response can be used to confirm that he did not see anyone. Dr. Noor narrates a story about several family members who used to visit them, and she suggests seeking social services to contact the family. The silence indicates that no one opposed her idea, since they did not provide any other suggestions. Unlike Episode 2, in which the inclusion of the patient's family affected the decision, the doctors want them to be aware of the situation, because they are aware of how critical his situation is. They did not want them or the patient to be surprised by the outcomes.

The episodes demonstrated how, within a medical context in which decision-making is the key activity, making decisions the process of is complex and challenging. Uncertainty was a complication that doctors had to manage. Resources that minimised or helped eliminate uncertainty for faster decision-making included presenting medical evidence in form of laboratory results and referring to patient conditions. Episodes 1 and 2 illustrated how such resources made final decisions easier. However, the doctors in all Episodes were dealing with constant switching pattern between certainty and uncertainty leading them to employ several discursive resources/devices that expressed certain/uncertain status and managed the uncertainty. Certainty is framed positively in the language used by the doctors. Examples include referencing the stability of the patients using 'stable' and 'no complain, which are based on medical status that is considered medical evidence. Framing is used as a discursive device even in critical cases and would contribute to the DM process (Dew et al., 2015). In Episode 3, Dr. Noor used 'DNR', 'deteriorating' and 'worsening', which all served as cues that would reduce uncertainty in the decision since in that case it was to not peruse any further treatment. One of the driving forces behind certainty is medical tests as they became crucial in reinforcing the certainty of medical choices, e.g. decision, while it simultaneously reduced any hint of subjectivity and personalisation

even though the tests need to be interpreted by humans/doctors and the human/doctors are the ones who formulate medical advice. In cases of certainty, strong predication using 'will' and intensifiers such as 'definitely' were used by the doctors as they made assessment about the direction of the patients' cases. Other sources for certainty included knowledge derived from current patient status and past 'success stories', which are also employed to lower uncertainty, reduce subjectivity and in consequence boost the justification decisions of doctors to increase their decision's validity (Hunink et. al, 2014). The last resource for validating certainty is collective agreement. The agreement was expressed by using 'we' to mention that the decision was made collectively, repeating the decision and using minimal response such as 'yah' and 'mm' to express agreement.

Uncertainty was presented using hedges, hesitations and direct language. This would prevail as doctors start to present their suggested decisions using discourse markers such as 'so' while elongating it. Then, hedging that indicated uncertinty (Zayts, Sarangi &Schnurr, 2016) was used by saying 'I think' and 'maybe'. Hesitations were expressed using ah', 'amm' and using 'ah' combined with a pause. Pauses and silence after suggesting a decision were indication of uncertainty as no collective agreement has been reached after immediately heating the decision. Uncertainty would also be referenced using direct language to point that there was an issue still not detected as in stressing 'something else'. Moreover, overlaps indicate problematic communication and were evident in interactions overshadowed with uncertainty. Since the lack of immediate agreement was a sign of uncertainty, it led to a bigger need for a joint agreement as this was an important source to overcome the uncertain or reach a decision even while still having uncertainty. Reaching the agreement in this situation depended on the medical expertise exchanged by the doctors combined with the use of questions such as yes/no questions, and code-switching to Arabic while using questions to get the information quickly and efficiently and avoid adding unneeded uncertainly. In situations that included high levels of uncertainty or the need to make a difficult decision that suspended treating a patient, such as in Episodes 3 and 4, doctors or, more specifically, consultants had to participate in lengthy discussions and negotiations to reach a final decision. The more uncertainty prevailed in discussions, the harder it became to reach a decision that all doctors agreed upon. Multiple resources, such as contemplating available medication options or the lack of other treatment options, narrowed the final decision.

The experiential expertise of doctors and the situational condition of patients also contributed to helping doctors reach final decisions despite uncertainty. What was evident in the data was that, as discussions were held to reach a decision, power was also a determining resource

in the final decision. All final decisions were made by the consultants, and the assistant consultants provided essential, updated information about the patients for the consultants. Yet, having knowledge and professional power did not eliminate consultant' need for joint agreement on the decision. The examples also showed that sometimes, the consultants took direct and nearly full control of the decision, as Dr. Saad did in Episode 1, but at other times, they observed and let others decide as in Episode 4. Discursive features used by the consultants included the use of humour and code-switching, which will be examined in the following analysis chapters to reveal why and how these resources were used by the doctors in their discussions. Lastly, the extended episodes showed that the doctors circled more than once to the pre-decision stage as needed when they opposed a decision. The assistant consultants resorted to this instead of openly expressing disagreement. The consultants, on the other hand, would elaborate more than once on the decision –to guarantee that they had included all the details they needed as they made the final decision.

4.3 Summary and discussion

Based on the genre analysis of DM, both unambiguous and complex decisions share basic four Moves: Move 1 Presenting the patient, Move 2 Pre-decision, Move 3 Decision, and Move 4 Closing. The first Move lays the groundwork by providing information about the patients and the progress of their medical conditions. This Move is equivalent to identifying the problem Move in Koster and Hanford (2012). In this study, the problem relates to presenting a patient. This Move is important as decisions need to be based on updated and comprehensive information. The first Move relies on medical updates, involving scientific proof as presented in lab results. This Move shares similarities with the structure of meetings in Dew et al. (2015), which includes the opening, case presentation, and provision of additional information.

Move 2 (Pre-decision) involves a rationale that includes medical evidence supporting the decision and the inclusion of collective medical expertise. This Move is equivalent to the discussion part in Dew et al. (2015). It is characterized by the framing of collective responsibility among doctors as they make a decision, as seen in Dr. Naji's reference to other doctors joining in the patient discharge decision in Episode 1. In this Move, consultants are either asked for their opinion or initiate the Move themselves. This demonstrates a recognition of the authority of consultants, with assistant consultants acknowledging the power asymmetry and adhering to it. This recognition likely stems from the consultants' authority in this institutional setting, combined with their expertise, which grants them more epistemic status and primacy as they control the

decisions. The same epistemic status leads to how the decision is announced in Move 3 because it falls within the consultants' domain.

Move 4, the Closing, includes an element of collective agreement similar to the Pre-decision Move. This indicates that doctors, particularly consultants, rely on validation from other consultants, supported by medical expertise. Additionally, it shows that consultants avoid relying on a single person's decision, understanding the medical risks involved. This makes it dangerous to depend solely on one consultant's decision without considering the expert opinions of other consultants. This is particularly important as the medical team makes even unambiguous decisions while facing uncertainty. Based on the data from this oncology department, decisions can change at any moment because the absolute success of treatments cannot be guaranteed despite using the best medical treatments and expertise.

The same uncertainties cause complications that make complex decisions include more Moves and Steps than unambiguous ones. For instance, in the Pre-decision Move, specific details are added in another Step, leading to more elaborate discussions about the case. An additional Move relates to the execution of the decision based on transactional details such as when and how to transfer patients. There is also a Move that re-discusses the case, sharing the collective agreement Step found in the Pre-decision Move. A significant part of the complex decision genre is the constant cycling between the Pre-decision Move, Decision execution Move, and Re-discussing the medical status. This constant cycling extends based on the case's complexity. This finding has not been detected in the DM literature, as few studies that included GA (Koster & Hanford, 2012) or structures resembling GA (Dew et al., 2015) reported similar findings. Even as the Koster and Hanford (2012) mentions a cyclical recurrence between response and evaluation, it is based on rejecting a solution or giving a new one. In this study the cycling was still based on the same suggested decision and included three Moves.

Complex decisions are framed using language that indicates trouble from Move 1 and within other Moves. Assistant consultants are primarily in charge of the first Move. Their language choices and manner of expressing issues may reflect their reliance on medical judgment while reporting the case. For instance, Dr. Noor uses terms like 'deteriorating' and 'worsening.' Similar negative language is used to confirm a decision, such as when Dr. Naji said a patient is 'unfit for therapy' to support Dr. Saad's decision to transfer the patient out of their department. Descriptions of deteriorating cases or patients not responding contribute to decisions on how to proceed with or stop treatment, similar to Hughes and Griffiths (1997), who noted how patient

characteristics or case details that do not show improvement (Dew et al., 2015) become part of decision-making.

Agreement is shown by repeating the decision or, in some cases, by no opposition. It is difficult to confirm that both methods indicate agreement, as no disagreement does not necessarily confirm agreement. For instance, in Episode 4, the consultants terminated the DNR option, and the assistant consultants were silent. Their agreement was passive, as they were arguing for the DNR option, but the consultants refused to agree. In the end, the assistant consultants continued to adhere to the authority of the consultants. Repeating the decisions, on the other hand, is a clearer indication of accepting the decision. In the Pre-decision Move, lack of agreement leads to more rational and elaborated discussions, as seen when Dr. Naji suggested treating the patient in Episode 3 and did not receive confirmation from the other consultants. The need for collective agreement is more important in complex cases. Uncertainty does not diminish the need for making a decision but reinforces the need for the team to work collaboratively to reach a decision.

Collective agreements seem necessary in this oncology setting, as noted by Dew et al. (2014), who also highlighted the need for collective agreement in multidisciplinary oncology meetings. In this study, doctors needed collective agreement to pursue the treatment plan. Lastly, decisions are made by the assistant consultants, indicating an asymmetry in the authority of the doctors, with consultants having the upper hand in decision-making. This asymmetry does not hinder the decision process; on the contrary, it is vital within the healthcare setting, as this authority is connected to the high expertise of the doctors.

While GA provides the structure of DM, CA identifies how this genre is accomplished in interaction. Through CA, it is evident that this genre is quick and fast, as latches were considerably evident in the data. The nature of the interaction included interruptions where consultants asked as many questions as needed. The longer and extended turns by the consultants revealed their epistemic status in the interaction, as they managed the conversation, as seen in this chapter and the next two chapters. The consultants initiated and finalized the decisions. Combing CA with GA has resulted in giving a rich details of the interaction within every Step and Move.

Medical literature on decision-making (Bouchez et al., 2023; Charles et al., 1997; Masic, 2022) emphasises the need for mutual understanding and collaboration to make decisions effectively in medical contexts. Yet, it does not discuss how these two abstract concepts are actually achieved in decision-making interactions. The above empirical analysis grounded in the investigation of real-life decision-making episodes has uncovered that doctors perform a great deal of language labour in such interactions and that achieving mutual understanding and

collaboration is not a straightforward but carefully negotiated and manged process, which relies on a multitude of language and other verbal resources including larger generic and specific smaller discursive devices to get the job done. The larger generic resources allow doctors to achieve a structure and show how language was used by the doctors as they interacted in a PMC context while noting that epistemic status and primacy had contributed in the DM process discussions and negotiations. The analysis shows devices such as hesitations, hedges, pauses and silence had been part of managing and contributing to the interactions in this genre.

The next Chapters turns to a detailed analysis of two particular resources: code-switching because of its prominence in the data, and humour because if its prominence and unexpectedness.

Chapter Five: Code-Switching Analysis

During the meetings, doctors frequently engaged in code-switching (CS) to Arabic, which turned out to be a prominent discourse feature in the recorded data. It occurred especially prominently in episodes that were difficult involving more complex decisions with a great deal of uncertainty, while faster decisions relied predominantly on English with fewer instances of switches to the other language. Since dealing with complexity and uncertainty when it comes to decision making seems to be one of the key matters that doctors encounter, it is perhaps not surprising that they rely on the multitude of linguistic resources that they have at their disposal, including their first language Arabic, in order to arrive at an appropriate decision efficiently. Although CS was very frequently used in more complex decisions, it occurred in all the recorded meetings. This suggests that CS might be a 'natural' phenomenon in the context when English is expected to be used as a medium of professional medical communication (PMC). In the context under study, its use was facilitated by the fact that all participants were Arabic speakers who had different varieties. Because of the frequency of CS in the studied episodes of doctor-doctor meetings, the decision was made to focus on this discursive resource in particular to understand how switches occurred, where, when and for what purposes in the context, which required English as the medium of PMC.

All analysis episodes and examples were from meetings 1, 2, and 3. The analysis revealed five dominant themes when it comes to the use and functions of CS in the context of this study. It has been used for: fulfilling transactional interactions, expressing negative emotions, conversational management, tag questions, and religious phrases. The functions of using the CS for each theme are mentioned within each theme.

5.1 Code-switching for transactional communication

The first theme in which CS was used extensively was in conversations that served predominantly transactional functions. Transactional communication entails getting work done and achieving work goals (Schnurr, 2012). The analysed meetings revolved around following up or readjusting treatment plans for the patients, and despite receiving updates about the patients in English, the doctors used CS to achieve outcomes in such transactional exchanges. The functions that were part of this theme included instances of elaboration as in asking precise questions (Episodes 1, 2, 3, and 4), agreement/disagreement (Episodes5 and 6), discussing medical options (Episodes 7 and 8), and reported speech (Episodes 9,10 and 11).

5.1.1 Code-switching for more elaboration

The following episodes occurred when doctors used CS in their ongoing discussions to gain more insight into their patients' status.

5.1.1.1 Episode 1

In this episode, Dr. Mohsen reported a patient's test results to his colleagues, emphasizing the need for an infection dosage (ID) recommendation before administering a specific medicine. However, Dr. Saber pointed out that the patient had already started receiving the medication.

256 Mohsen = we informed the ID we need to follow their recommendation
257 if we need to: start tigecycline ah they didn't start yet/
258 Saber / no no start it =
259 Mohsen = بدأو؟ متى؟=
= *they started? When?*=
260 Saber = من اليوم =
= *from today*=
261 Mohsen = لا لسه علي الظهر كان ما في مين /
= *no until the afternoon there was not who*/
262 Saber /started definitely=
263 Mohsen = according to the * only sensitive لل tigecycline =
= according to the * only sensitive *for the* tigecycline =
264 Saber = they recommend to start high dose tigecycline =
265 Mohsen = تمام=
= *ok*=
266 Saber = and high dose meropenem=
267 Mohsen = well done =

In line 259, Dr. Mohsen expressed in Arabic and not in English his surprise that they had already started the medication with the patient. He wanted more information because he was giving the handover of this patient, which indicated that he was in charge of the patient up to the moment of the handover. His surprise could be why he unconsciously switched to Arabic because he immediately asked more questions to fill in the unexpected gaps in his patient's progress. Since

he asked in Arabic, Dr. Saber answered in Arabic as well, in response to hearing the question in Arabic. Despite hearing the answer, Dr. Mohsen in line 261 insisted in Arabic that, until that afternoon, nothing had been given to the patient. His use of Arabic could be to inform Dr. Saber and other doctors that he was monitoring his patient's case.

Dr. Saber replied in English to affirm his information. His use of English seemed to have made the information concrete since Dr. Mohsen also used English to provide more medical information, as shown in the patients' records. During the first meeting, the doctors tried to adhere to using English only, which explains why they quickly returned to English after using Arabic. Another reason for switching back to English could be that they provided information from the hospital's medical records (line 263). All medical records were written and kept in English in the hospital's system; during my observation in the meetings, I noticed that the doctors were taking notes in English while receiving the handovers or were using handwritten English notes. This episode showed that Arabic served a transactional function to achieve a specific outcome (Holmes & Stubbe, 2004), which in this case was elaboration to get updated information.

5.1.1.2 Episode 2

As the doctors discussed a patient's case, Dr. Naji wanted to know exactly how many days the patient took vancomycin because the patient had developed symptoms that could require the administration of more vancomycin.

138 Naji = ال vanco * positive * blood culture صح؟ =
= *the* vanco * positive * blood culture *right*?=

139 Saber = ahh * كان عنده * لا /
= ahh * *no* * *he had*/*

140 Naji = طيب و كم يوم صار له على ال / vanco?
= / *ok so for how many days he was on* vanco?=

141 Saber = hmm?=

142 Naji = كام يوم =
= *how many days*=

143 Saber = كان كم يوم؟ =
= *how many days in total*? =

144 Naji = ايوه =
= *yes* =

145 Saber = :يمكن بقى له ten days فبكرا حيكون: اخر يوم sorry كان قالوا one week one week =

= *maybe he: has left* ten days *so tomorrow will be: the last day* sorry *they said* one week one week=

146 Naji = mm=

147 Saber = هوا بدا خمسه February*** =

= *he started on the fifth of* February ***=

This episode is another example of a CS used to achieve a transactional function in communication to ensure accuracy of information (Holmes & Stubbe, 2004). This was a resource that the consultants resorted to in their questions. Because Dr. Naji wanted to obtain more precise information, he asked his question in Arabic in line 140. Arabic was his language for the question, and he knew that Dr. Saber, who is Egyptian, would immediately understand his point since he is an Arabic speaker too, and he already heard details about the patient's laboratory results, but he was interested in one. Before answering, Dr. Saber repeated the question in his own words in Arabic to check that this was the detail Dr. Naji was seeking. This shows that even Dr. Saber resorted to Arabic to minimize any misunderstandings before providing answers. Once Dr. Naji replied 'yes,' indicating that he was still waiting for the answer, Dr. Saber provided the information needed, accompanied by the specific dates on which the treatment began. Another function of Arabic is discourse management (Holmes & Stubbe, 2004) since it helped Dr. Naji hold the conversation until he got the answer to his inquiry.

5.1.1.3 Episode 3

The doctors discussed a patient admitted through the Emergency Room (ER) with suspected Covid and Urinary Tract Infection (UTI) symptoms. They were aware that she did not take the Covid vaccine and tested positive. This posed challenges, as they were discussing her treatment plan.

76 Naji = السؤال هوا: التطعيم ليه ما اخدت=

= *the question is: why did not she take the vaccine*=

77 Saad = hmm?=

78 Naji = ليه ما اخدت تطعيم الكوفيد =

= *why did she take the covid vaccine* =

79 Saad = ما تبا

= *she does not want to*

80 Naji = ah she does not want=

81 Saber = she does not want =

82 Saad = هيا كلمناها في العياده كذا مره و خلاص باروح باروح =

= *we talked to her in the clinic many times and she said ok I will go I will go* =

83 Saber = mm mm (0.6)

Arabic was the language that dominated this episode, as Dr. Naji wondered why the patient had not taken the vaccine, considering her critical condition. Arabic was used to quickly and accurately ask and respond to his questions about this critical case. As he received his answer, he used 'ah' in line 80, which indicates that the answer was not what he expected. He switched to English when he repeated the information. Going back to English could have made it a more formally acceptable answer because, during the meetings, formal medical updates were presented in English. However, his repetition of the information might have also shown that he might still have more questions on his mind that he had retained from asking since he received a response from the head of the department, Dr. Saad. This led to Dr. Saad providing a defensive explanation. He explained in Arabic how the team tried to convince the patient to take the vaccine many times. Dr. Saad's response shows that he alleviates any responsibility for the patient's actions from the doctors while explaining that the medical team did their best to convince her. Dr. Saad's CS was used for the purpose of 'defence' of himself and the team and to maintain the professional status and any doubts about a possible wrongdoing

Furthermore, it was noticeable in the data that when doctors relied on information related to patients' actions (such as refusing to take Covid vaccine), they used the Arabic language. This switch can be their way of presenting a clear picture of the situation with the patients because, in moments like this, a side effect related to the patient's actions occurred. They need to ensure that the responsibility is not placed on them while explaining that they performed their jobs properly as medical professionals. Similar to the previous episode, doctors resorted to Arabic to provide and receive clarification about the patient, which was again a transactional CS (Holmes & Stubbe, 2004). However, there is also the presence of a relational function, which is the social/affective function of CS (Holmes & Stubbe, 2004). This was evident in the justification given by Dr. Saad, who absolved the team of responsibility for their patient, who was in a critical stage of treatment, for not taking the vaccine.

5.1.1.4 Episode 4

The doctors discussed an HIV patient experiencing dental issues that resulted in a halt in their cancer treatment. They awaited the patient's completion of dental treatment. Dr. Noor inquired about post-dental treatment chemotherapy plans and presented two options. Dr. Naji advocated immediate chemotherapy, prompting a detailed discussion of the patient's laboratory results to arrive at a decision.

670 Mohsen= ال ID clear [*] clear he's * for chemotherapy=
= *the* ID clear [*] clear he's * for chemotherapy=
671 Noor [clear]
672 Noor = CB four increasing يعني * improve كان اول /
= CB four increasing *it mean* * improve *before it was*/
673 Jaber = كام يعني /
/so what is the count=
674 {doctors at the same time}
675 A doctor يمكن من ستة = { in a low voice}
Maybe from six= {in a low voice}
676 Noor = usually من متين كان ميتين و حاجة اكتر من تسعين /
= usually *from two hundred was two hundred and some more than ninety*/
(more than one doctor talk at the same time)

The CS here still falls within the transactional function (Holmes & Stubbe, 2004) and serves the aim of achieving precision and clarity of information about the patient. Dr. Jaber used this to obtain answers for the specific details. His reliance on Arabic could have been due to the criticality of obtaining answers without any misunderstanding of his questions because any mistake or misunderstanding would affect the treatment plan for the patient.

5.1.2 Code-switching for expressing agreement/disagreement

In the next episodes, CS was used by the doctors in instances that shows their disagreement with details related to treatment options.

5.1.2.1 Episode 5

The conversation is concerned with selecting the most suitable medication for the same patient in the episode 4.

691 Saad = انتا ما تدري قد ايش يروح **=
= *you do not know how much would be lost* **=
692 Naji = طيب خلاص ندي **=
= *ok then we just give* **=
693 Saad = ***
694 A doctor **/
695 Jaber / هوا اللل اللل اه انتا حتدي ال bonatenum?=
/ *it is the the ah are you going to give the* bonatenum?=
696 Saad = [* لا لا]
= [* *no no*]
697 Noor [هوا ال] bonatenum له طلب already non * بس لسه ما: =
[*well the*] bonatenum *has a request* already non* *but still not*:=
698 Mohsen = بس له فترة من يوم ما انطلب ممكن /
= *but a while has passed since it was requested maybe*/
699 Noor / [لسه * كلمت بس not available]
/ [*but I called * it is still* not available]
700 Jaber في البروتوكول مكتوب[هوا مش يعني ال: اللي موجود]
[*well it is not I mean the: the one available*] *in the protocol written*
701 ال hyper cilas * (0.1)
the hyper cilas * (0.1)
702 Saad ahm=
703 Jaber = انما دا انا برضك حنبقى احنا بنبتكر الوضع ال: {laughs}
= but this still means that we are inventing for the situation the: {laughs}
704 Saad **=

This episode provides an example of a content-related CS that serves to express disagreement and uncertainty (Chen, 2007). Disagreement is evident when Dr. Saad used Arabic in line 691 to tell Dr. Naji that they might lose more of the count of the lab results in line 691. He disagreed with Dr. Naji's opinion by saying, 'you do not know how much would be lost'. Utilizing

Arabic as a medium for conveying strong disagreement was purposeful as it effectively communicated the message with clarity and emphasis. The directness of this disagreement persuaded Dr. Naji to choose another option based on his response. Dr. Saad continued to use Arabic, as shown in line 696. When Dr. Jaber wanted to know if they would give botenum (it was not clear who he was addressing), Dr. Saad continued to refuse this option by firmly repeating 'no' in Arabic several times. It seems that Dr. Saad's use of CS into Arabic in disagreement was to deliver a stronger effect of his opinion since the use of Arabic does not leave room for doubt about the meanings of his words. For all the doctors in this study, Arabic as their first language is seen as more intuitive and straightforward in certain interactions, making it easier to use and potentially enhancing communication clarity among colleagues.

The CS for expressing doubts and uncertainty is shown in the following example. In line 703, Dr. Jaber used the word 'inventing' as they were discussing available options that they might use with the patient. In that line, Dr. Jaber laughed while using 'inventing,' which expressed that he was not yet sure or comfortable with this choice. The use of this term reveals the uncertainty regarding his suggestions. While this CS is content-based, it also reveals that emotions are associated with the use of Arabic. Dr. Jaber laughed, and this was not pleasant laughter, as they were running with limited options. Therefore, it is nervous laughter that accompanied using Arabic to express the difficult situation that they had as medical professionals who had to make decisions. Interestingly, both Dr. Saad and Dr. Jaber (consultants) relied more on Arabic in their discussions. This could be attributed to their positions, as the first is the head of the department, and the latter is the doctor with the highest experience among all the present doctors. Their positions may have given them the advantage of choosing Arabic over English or English over Arabic, basically any language they wanted to use to convey their messages. They also need to guide assistance consultants and have a final say in the treatment plans, which could be why they resort to Arabic to expedite discussions while minimizing misunderstandings.

In my interview with an assistant consultant, he expressed his desire to use English at all times at work. He explained that the consultant simultaneously used Arabic and English, which he did not prefer. "One of the consultants was sitting, so we would talk to him, and we would have case discussions with him, then the ah, then the ah, then the cases, so there was a little talk, a little bit of Arabic, and a little bit of English. I mean that he was not constantly talking in English or Arabic. Some places that I worked in were using a little bit of Arabic and a little bit of English. There is no constant English." This shows that the option of using English only would lie in the hands of those in higher positions since they are the ones running the direction of the discussions.

5.1.2.2 Episode 6

The consultants engaged in a discussion, cautioning the assistant consultant regarding the timing and method for presenting the DNR (Do Not Resuscitate) option to patients. Despite acknowledging the complexity of the case, the consultants did not actively advocate for DNR. They initially used humour to encourage assistant consultants to contemplate this decision deeply. However, as one of the assistant consultants continued to press for a DNR, the consultants resorted to direct warnings, emphasising that it was not the right choice for this case.

321 Mohsen we can do we can do: :ال DNR form over the weekend يعني keep him for
we can do we can do: *the*: DNR form over the weekend *I mean* keep him for
322 * if he's tolerating it's not **=
323 Naji = so this is wrong =
324 Jaber = ما تقدرش ما تقدرش=
= *you cannot you cannot*=
325 Naji = you should not do: a DNR decision on a deteriorating patient =
326 Jaber = mm=
327 Naji = that's wrong this is where all the law suites <u>happens</u> and this is what the
328 physician loses انهat that point driven by resources not by the patient
physician loses *because* at that point driven by resources not by the patient
329 condition <u>here</u> am just driven but by his condition if he arrest <u>now</u> there's
330 <u>slim</u> chance that he will go back or you can bring back =
331 Jaber = ** هوا حتى لو طلع معاه cancer اللي بت :الأدوية ال من حاجه حيدوه و target
= ** *even if it turned out to be* cancer *and they give him some of the: medications the: the ones that* target
332 بس * معينه او حاجه you can give him و هوا لو كلام ما cancer
only * *specific or something* you can give him *and if this is about* cancer *you*
333 تقدر ما تتحمل ما توديهوش ال ICU لو طلع لأنه برضهlung cancer مش حيروح لل ICU
cannot be responsible you cannot send him to the ICU *also because if it is* lung cancer *he will not go to the ICU*
334 (0.4)

When Dr. Mohsen continued to include DNR as an option, both Dr. Jaber and Dr. Naji (consultants) objected. Dr. Jaber resorted to Arabic to directly inform Dr. Mohsen that he could

not consider this option. Dr. Naji explained the severity of this option and how it compromised the professional reliability of the doctor who pushed for it. Dr. Jaber added what treatments the patient might receive, even if the condition of the patient turned out to be cancerous. Dr. Jaber used Arabic to explain any future options that could be pursued with the patient, but he used English for technical words such as cancer, lung cancer, and ICU. This is an example of content-related CS (Chen, 2007), wherein the function is to express disagreement. This explains why Dr. Jaber used Arabic to indicate the severity of considering the DNR option. Previously, he tried to use humour to warn the assistant consultant of this option (see Humour episode 5 for a detailed episode). At that point, he told them 'Don't rush the decision people (don't rush it) this is an execution {laughs} don't rush it'. He used Arabic to tell them to stop and think as he was not in favour of the DNR option. He started with humour to disagree without enforcing his opinion on the assistant consultant, which he could do because he had more authority and experience as a consultant. He might have started with humour first to avoid undermining the medical opinions of the assistant consultants. However, when this did not seem to work, he resorted to direct objections in Arabic. The continuous switch to Arabic expressed Dr. Jaber's annoyance with the doctors for not understanding the reason for his use of humour. He ended up telling them to cross the DNR.

Aside from the content function of the switch, it was interesting that the emotions of both consultants were evident in this episode when they resorted to a direct and long explanation of why the DNR option should not be considered. They were disappointed with the assistant consultants for trying to pursue this option. Each consultant resorted to different languages to express their anger and frustration with the assistant consultants, which supported Pavlenko's (2005) notion that when multilinguals need to express emotions quickly in their interactions, they resort to their largest linguist arsenal, or the language in which they are more dominantly proficient. Dr. Naji chose English when he explained a legal consequence, and he mostly used English in his explanations at all meetings. He recently joined them after years of studying abroad in an English-speaking country, which might explain his current preference for using English – also as a status symbol of signalling his global educational experience, in contrast, Dr. Jaber who had been based in the hospital for a long time, used the local language – Arabic.

Because expressing emotions in CS became evident in this theme and within the next one, the function of negative emotions will be analysed under section 2. Emotions are intertwined with other CS functions, which is why segment that included them were not isolated in the previous theme on the next one to make a holistic view of the episodes' analysis. In the end, the objective

is to represent an authentic interaction and show how different language resources work together to achieve the conversational goals. In section 2, the analysis is dedicated to emotions only.

5.1.3 Code-switching for discussing medical options

The next episodes exemplify how Arabic became a resource for doctors, as they delegated the best choice of treatment to their patients. These episodes are a continuation of the discussion on the same patient during episode 4.

5.1.3.1 Episode 7

This episode was centred on the results of a specific test that was crucial in determining the subsequent treatment course for the patient. As the discussion continued, doctors increasingly began using the Arabic language.

676 Jaber / لو حتى ** هوا حتهمنا اكتر في ال: في ال: two يعني انما: (0.2) *** =
/ *even if* ***what matters to us more is in the: in the*:** two <u>but if</u> ah (0.2)***=

677 Saad = بدونه تقصد ** ال =
= *the* ** *you mean without it*=

678 Mohsen = plus بالأخر؟
= *plus in the end*?

679 Noor كان لسه هوا ال * still not available هوا =
*Well the * was then* still not available *the* =

680 Jaber = خلاص خده بس ما فيش: هوا ال * =
= *he already took the * but there is no*:=

681 Noor = مافيش response :عليه هيا ال /
= *there is no* response *on it the*:/

682 Naji هوا ال * نقص فيها ولا؟ / =
/ *did the * decrease or not?*=

683 Noor = لا لا =
= *no no*=

684 Naji = ما نقص؟ =
= *did not decrease?* =

685 Noor = PCR ** لا[more than] fifty five بس ما فيش /

= PCR **_no_ [more than] fifty five _but there is not_/

686 Saad هذا هو [more than]

That's it [more than]

688 Saad انه هوا هذا ال / count limit

/ _this is it that the_ count limit

689 اللي عندنا للان fifty five=

that we have so far fifty five=

690 A doctor = mm =

In this part of the discussion, the doctors used Arabic unless there were technical terms, such as 'count limit' and 'PCR.' This can be attributed to three factors. First, all doctors reported that their medical education was in English, as reported in the background survey. Another factor to consider is the use of English as a language to maintain the medical records in this hospital. Both of these reasons could reinforce why they constantly relied on English as they talked about diseases, symptoms, and side effects. Finally, the doctors work with nursing staff that have a majority of non-Arabic speakers, which is evident from my observations during data collection. They receive constant updates regarding the lab results and patients' conditions. English was the language used by all medical professionals and dominated such communication as based on my observations, which lasted for a month in the oncology wards.

Regarding the use of Arabic, it appears that the doctors were trying to determine the best course of action with the patient, and the Arabic language helped them communicate clearly and negotiate the best option for the patient. Dr. Jaber used Arabic to inform the doctor that there was still a need to see a particular number in the test and paused in line 676, which indicated that he was not convinced of the results at hand. His use of Arabic could be due to the criticality of the situation, as he wanted the other doctors to be aware that they still do not have very convincing laboratory results, and using Arabic helps possibly deliver this message to others faster and clearer. Dr. Jaber also used Arabic in line 680 to inform the doctors that the patient had already taken another medicine without the required response. This switch functioned as an informative switch, wherein Dr. Jaber told them about the latest update regarding how the patient had responded poorly to the medicine, to rule it out as an option. Similarly, Dr. Saad used Arabic to express his concern that the count they had was problematic by saying 'this is it' to stress his point of concern in line 688. Arabic aids doctors in choosing the most appropriate treatment, particularly when they are uncertain. Arabic as a resource seems to deliver their concerns more strongly, as it

leaves no room for doubt about what they are trying to say since all doctors share it as their first language.

5.1.3.2 Episode 8

In this episode, Dr. Jaber suggested a treatment that the other consultants were hesitant to administer.

561 Naji = she's very high risk انه يعني /
= she's very high risk *which means*/

562 Jaber / لا لا انا مابقولش حاجه هيا فيها defiantly risk
/ *no no I am not against this this is* definitely risk

563 يا: زي ما انتا شايف هيا improvement دي في سبيل ال risk بس لا هوا: اه هيا تاخد ال
but not its: ahh she takes the risk for the sake of improvement *or: as you see she*

564 حتفضل تاخد ال megastorin دا و قاعدة في المستشفى و مش حيعمل seems
will continue taking the megastorin and remain in the hospital and it will not work seems

565 شغل شغل الحاجات دي عادة بيبقى بطئ =
the effect effect of these things is usually slow =

566 Naji = بالزبط =
= *exactly* =

567 Jaber = اللي هيا ال target therapy كل شغلها بيبقى slow=
= *these* target therapy *all of their effect is* slow =

568 Noor = * هيا قد ايه ليها بتاخده outpatient عشان ال platelet [transfer]**=
= *how long has she been taking it* * *as* outpatient because the platelet [transfer]**=

569 Jaber [platelets اه]
[*yes* platelets]

Dr. Naji was worried that the patient was at a high risk for treatment. Even Dr. Saad, in the previous discussion, was concerned that the patient might not handle the medication suggested by Dr. Jaber. Thus, in line 562, Dr. Jaber admitted that there was a risk, but defended his choice. While doing so, he used Arabic to express his strong feelings about how to proceed with the patient in a way that would benefit her the most, rather than putting her through a longer treatment that would have a slower effect. He defended his medical expertise and expressed sympathy for

the patient because he did not want her to suffer longer. Dr. Jaber continued to use Arabic to express and defend his medical expertise while maintaining solidarity (Holmes, 2014) with his consultant colleagues, as he presented his options without dismissing their concerns.

5.1.4 Code-switching for reported speech

Episodes in this category included CS when the doctors were reporting interactions relayed by patients or their family members.

5.1.4.1 Episode 9

Dr. Noor sought information regarding the potential transfer of a patient to palliative care due to his deteriorating condition.

254 Noor = يحولوه *** هوا palliative ولا =
= *is he* **** *get transferred to* palliative *or* =
255 Saad = لسه باقي شويه =
= *he still has a bit left*=
256 Noor = شويه =
= *a bit*=
257 Mohsen = **=
258 Saad = يعني يبغاله كذا فتره هوا لسه ما يعرف انه حيعمل chemo therapy =
= *well he needs a bit of time he still does not know that he will do* chemo therapy=
259 Mohsen = mm=
260 Noor = هوا ابنه قال ما تقولوهوش =
= *his son said do not tell him*=
261 Saad = حيعرف ما حيجي لل dose (0.7)
= *he will know because he will come to get his* dose (0.7)

Dr. Noor switched to Arabic when she sought Dr. Saad's direction on transferring the patient, and he responded in Arabic. Her switch took place as she was discussing an issue that was not a medical treatment but rather would lead to administrative work on their behalf. This could be why she chose Arabic to talk about the situation and what they needed to do since their discussion would not be part of the records and using Arabic (the doctors' first language) would move faster. Doctors used Arabic in their discussion on how to proceed with the patient, which could be classified as transactional conversation (Holmes & Stubbe, 2004). The use of Arabic

also included reporting what the patient's son had said, a reported speech function that appears in CS (Chen, 2007). The information reported about the patient's son explained why they could not inform the patient about his condition. So, Dr. Noor was reporting it to let others know that she did not neglect her duties but rather had to adhere to the son's request. From this episode, and even in the first episode, Arabic becomes the language that doctors use when they want to maintain their image as sound medical professionals. This helps them gain more understanding from others and solidarity rather than using English, which seems to be associated with specific medical reporting.

5.1.4.2 Episode 10

The doctors questioned why one of their patients had requested morphine as a painkiller, leading to a debate about the possibility of morphine addiction. While this episode includes moments of overlapping and missing dialogue, it serves as a critical example of how doctors resorted to Arabic when they needed to obtain precise details while discussing this pressing issue about their patient.

648	Noor	= ahh هوا ال pre anal pain أي ما بيعملش * كان بيقول effect و معاه [still]* pain = ahh *well the* pre anal pain *he is saying * is not having any* effect *on him and* [still] * pain
649	A doctor	[و عايز المورفين] [and he wants morphine]
650	Noor	= بس عشان ال * اه و عايز المورفين constipation عملت palliative consultation/ = *yes and he wants morphine * but because of the* constipation *I made* a palliative consultation/
651	Saad	/ palliative=
652	Noor	= اه فا حطوه على titanek continuous <u>infusion</u> twelve point five mic ahh = *Yes do they put him on* titanek continuous infusion twelve point five mic ahh
653		<u>hourly</u> BRN مع كمان twelve point five hourly = <u>hourly</u> *with* BRN *also* twelve point five hourly =
654	Saber	= فيه حد عوده على المورفين دا قبل كده = = *someone got him used to morphine before now* =
655	Noor	= انا [***] = *I* [***]

[Several doctors at the same time]

656 Naji = بس: من بداية ال admission ما اخده =

= *but: from the beginning of* admission *he did not take it* =

657 Saad = لا لا مديه من ال admission=

= *no no he got it from the* admission =

658 Noor = [هوا طلبه دلوقتي طلبه by name]

= [*he requested it now requested* it by name]

659 Saber [****] with other doctors

660 Naji = لا لا انا قصدي اذا كان هوا متعود ما كان حيجلس من يوم ال induction الين دحين =

= *no no I mean that if he was used to taking it he would not have waited from the* induction *until now* =

661 Noor = * صحيح بس هوا pain [بيبقى عايز موفين]

= *correct but he is* * pain [*he would request morphine*]

662 Saber [** مش] انا اقصد انه هوا بيحس انه هوا [***]=

[*not* **] *I mean that he feels that* [***]=

Dr. Noor told the doctors that the patient complained of pain and requested morphine treatment. She started CS to Arabic because she reported the patient's complaints. She consulted him and prescribed medications to help him with the situation. Dr. Noor's use of Arabic could be because she was retelling the patient's complaint and requesting verbatim, especially since the morphine request had sparked controversy and a long discussion between the doctors. As the discussion continued, CS had the following functions: casting indirect accusations and disagreeing. CS was used to express suspicion by Dr. Saber. He suspected that he had communicated in Arabic. He suspected that someone had previously administered morphine, which led to the addiction. He expressed this accusation in Arabic, indicating his disapproval of the situation. He said, 'someone', and what is interesting here is that he did not cast the blame on a specific name. It seems that he was not comfortable making this accusation, which is why he might have used Arabic. While the doctors had an overlapping conversation, Dr. Naji told them that the patient had not received any morphine since his admission, which refuted Dr. Saber's suspicion.

Disagreements were expressed by Dr. Naji in Arabic too. Dr. Naji was still not convinced that the patient had been on morphine and told the other doctors that if the patient was already on it, he would not have waited to ask for it until now because they had started his induction phase treatment. As they continued their discussion of how this situation could have developed, Arabic

was their language of choice, unless they mentioned technical medical words such as precise numbers and dosages (twelve point five hourly) and names of departments (admission).

In this Episode, CS started with reported speech and included reporting the patients' request seemed critical to justify why there was a morphine request which the doctors did not order. At this point the reported CS is used, similar to the previous episode, to defend the doctors as medical professionals since it identifies the patient as the person requesting this medication and not a doctor. The doctors were aware of the dangers of this request as revealed in their discussions. In a subsequent discussion (which can be seen in the full transcript in the appendix), Dr. Saad explained that an investigation took place for ordering morphine in the past and even ordering it has to be cleared from another department.

5.1.4.3 Episode 11

In this segment, the doctors discussed the process of informing the HIV patient's family about his condition.

336 Jaber = انا I think yes (0.3) بس هل هوا بيجيله حد ما اهله عشان نلكمهم =
= *I* I think yes (0.3) *but does any of his family visit him so that we talk with them*=

337 Naji = والله ما شفت =
= *I swear to Allah I did not see*=

338 Nader = **=

339 Noor = كان بيجيله اخوه و بطل لانه انحجز فوق في ال neuro جاله stroke ابن
= *his brother used to visit him and he stopped because he got detained upstairs at* neuro *he had a* stoke *his nephew*

340 و حاولوا انه انتو discharge اخوه بطل يجيله و يسأل عنه *** انه اخر مره كان كلمونا في ال
*stopped coming or asking about him *** the last time they contacted us was from the* discharge and {verbatim} *you try to*

341 تتواصل معاهم * social توفروا له مكان و كدا فالظاهر: قفلوا القصه يعني ممكن كمان ال (0.6)
find him and something like this {stopped the verbatim} *and it looks: like the story has ended maybe the* social * *could contact them* (0.6)

Dr. Jaber asked in Arabic about the patient's family to learn whether they were nearby, as the doctors needed to talk to them about the patient. It appeared that they needed family members present when they delivered bad news to a patient about his deteriorating condition. Dr. Naji

responded by saying that he did not see anyone. He was not questioned when he said ‘I swear to Allah’; these words were used as confirmation. Using this oath in Arabic indicates that he would be more believable as he uses an expression that all doctors know and use since they are all Muslims and Arabic speakers. This shared joint religious identity makes it stronger to validate his words and actions in Arabic rather than English.

Dr. Naji said that to indicate that he had not neglected to meet the family members, but rather did not see them. Dr. Noor provided details regarding the family members in Arabic. As the information was not medical, she chose Arabic to share the latest update. Part of the story about the patient’s family was reported verbatim. The switch was not unusual because it signalled that Dr. Noor was reporting someone else’s words (Dewaele, 2010). In addition, it was not information that belonged to a medical record, which could explain why Dr. Noor used Arabic to relay it. The reliance on Arabic in this part indicated that the doctors were protecting themselves from the responsibility of not being able to contact the patient’s family, which they wanted to do because it was an important step in dealing with this patient.

In these episodes, the doctors dealt with issues within their teams. On one hand, they did not want to use the DNR option. On the other hand, they had issues related to contacting their patient's family members.

5.2 Code-switching to express negative emotions

A second substantial use of CS was identified in parts of the conversations that served predominantly relational purposes. Relational communication aims to foster a harmonious working atmosphere as it focuses on interpersonal relationships among colleagues (Shnurr, 2012). This section discusses the most prominent patterns in the use of CS, in which CS served relational functions focusing on negative emotions, solidarity, and the mitigation of face-threatening acts.

5.2.1 Episode 12

This marks the conclusion of the discussion about the same HIV patient just before the doctors transition to the next patient. During this part, they delved into additional factors contributing to the patient’s issues, further complicating their treatment.

716 Jaber = الحل انه نقيس على و لا دا (0.2) هما اللي نطروا البروتوكول فيه like that=

= *the solution is to evaluate if it is this option or the other* (0.2) *they were the ones who overloaded him with the protocol* like that =

717 Saad = **=

718 Jaber = اه انما احنا ماعندناش ***=

= *Yes but we do not have* ***=

719 Noor = mm=

720 Naji = * طب و اذا ما عندنا * نخليه * مع =

= *ok and if we did not have * we give him * with* *=

721 Saad = نحطه في أي شي الين مال=

= *we put it in anything until* =

722 Naji = لين ما يجي بعدين نشوف =

= *until he comes then we will see*=

723 Jaber = اه =

= *yes*=

724 Noor = ممكن يعني: start next week hyper cilas? =

= *this means: maybe* start next week hyper cilas?=

725 Naji = Sunday hyper /[cilas]

726 Noor [a one] =

727 Naji = yah =

728 Saad = ممكن تكتبوه اليوم و يبدأو بكرا صباح =

= *you could write it today and he starts tomorrow morning*=

729 Naji = [لا لا لا مو بكرا عنده extraction]

= [*no no no not tomorrow he has* extraction]

730 Noor = [لسه ما عملش بقية ال extractions] عنده هنا multiple: issues=

= [*he still did not have the rest of the* extractions] *he has* multiple: issues=

731 Saad = الاحد يعني=

= *so Sunday*=

732 Noor = اه يخلع/

= *yes he will extract* /

733 Naji = خلع قبل يوميها أربعة و دا اليوم خلع اظن كم؟ /

/ *he extracted four previously and this day I think he extracted how many?* =

734 Noor =هوا المفروض كان يعمل ثلاثة الباقيين اليوم بس اهه هوا رفض قال انا لو خلعتوا لي لسه مش

= *he was supposed to do the last three today but ahh he refused he said if you did the extraction I would still not*

735 = باكل هنا و حتخلعوا لي و مش عارف ايه فاستنوا عليا ليوم الاحد

be able to eat and you will do the extraction and I do not know what so give me till Sunday

736 Naji = he had a * dental abscess two by three centimetres=

737 Noor = mm=

During this discussion, Arabic was used to express the doctors' negative emotions. Dr. Jaber expressed his disapproval of the patient's previous treatment, which could have been a reference to the original hospital that transferred the patient to them. In line 716, he used Arabic to express annoyance with the extensive use of medication in the previous treatment. He started by telling the doctors that their solution was to use what they considered best and paused. Then, he used 'they filled him with the protocol,' which suggests that the patient had been overloaded with too much medication. Dr. Jaber blamed the other hospital as he used 'they' to point out that the issues they were having with this patient were caused by the other hospital. His choice of words such as 'overload' and 'they' and his pause in line 716 indicate that he was not happy with how the patient had been treated. The use of Arabic in this section revealed the emotional status of Dr. Jaber. It seems that he was stressed by trying to figure out a solution for the patient, and he signed blame to the previous hospital, which shows that he disapproved of their medical choices. These choices created difficulties for their team as they debated how to treat the patient. Dr. Jaber's disproval could also be a strategy of upholding the image of a sound medical professional. The doctors considered different choices in lines 720-722, it was also expressed in Arabic, helping them move on during their conversation while using a language that was known to all of them.

Dr. Noor asked in English when they would start the medication, which could be because it was an instruction that would be written in the medical records that were only written in English. However, Dr. Saad answered in Arabic and chose the day to start treatment. During the meeting, Dr. Saad used Arabic to give instructions and answer questions directed to him, even if he was asked questions in English. Thus, it appears that the use of Arabic is motivated by the need to communicate quickly. It showed his preference to communicate quickly and directly in the language that was common among them while ensuring that his instructions were understood without miscommunication.

Dr. Noor informed them about the patient's complaints in Arabic. She relayed the story by reporting the patient's words. As she had heard the story in Arabic, this could explain why she reported it to them in Arabic as well. The conversation started to move back to English through Dr. Naji, as he explained some of the extraction steps that had to occur, which was the end of their

discussion of this patient. The switch to English contained information about the patient's medical condition and development, which had to be included in his medical records. Doctors mostly use English when referring to this information. It is likely more natural for them to retrieve information from the language written in.

The last part of this Episode featured continual switching to Arabic, which served, as above, the discourse function of reporting the patient's speech (Chen, 2007). The switch at the beginning of the episode showed solidarity (Holmes & Stubbe, 2004) because Dr. Jaber held another party responsible for the patient's problem. It also serves an informative function because it uses Arabic to maintain accuracy in information exchange (Holmes & Stubbe, 2004).

5.2.2 Episode 13.1

The doctors addressed ongoing issues with the ENT (Ear, Nose, and Throat) department. They required a consultation for a patient recovering from Covid, but despite multiple attempts by the ICU (Intensive Care Unit), the ENT department was uncooperative. Due to its length, this episode will be discussed in two parts.

275		today the discharge stopped but <u>still</u> he cannot hear clearly يعني ahh (0.4)
		today the discharge stopped but <u>still</u> he cannot hear clearly *I mean* ahh (0.4)
276		ahh ال ال ID :كمان طالبين CT brain * collection عشان **** still ah the ent* in
		ahh *the the ID is also requesting:* CT brain * collection *because* **** still ah the ent* in
277		ICU and in spite of the ICU consult contacting them many times
278		yesterday=
279	Jaber	= ولا في الطوارئ ولافي ال ** floor * ولا في ال =
		= *and not in the emergency room or the* *** floor * *or the* *=
280	Saber	= اه =
		= *yes*=
281	Noor	= ولا ال ICU =
		= *nor the* ICU =
282	Saber	= Doctor X مره كلمهم بتاع من عشرين * ولله برضه في ال =
		= Doctor X *in the * I swear to Allah had also talked to them like twenty times*=
283	Jaber	= ماشي =

= *ok*=

284 Naji = انا في رأيي تكتبوا consultations هما ما ردوا هما شافوا المريض؟ =

= *in my opinion write* consultations *they did not respond did they see the patient?*

=

285 Saber = *=

286 Naji = نرفع نرفعه غياب و خلاص * =

= * then we report report him as absent and that is it =

In this Episode, CS expressed the solidarity and the negative emotions that the doctors felt throughout the discussion (Dewaele, 2006; Holmes & Stubbe, 2004). Dr. Jaber used Arabic in line 278 to express his annoyance with the ENT department's lack of cooperation. Dr. Jaber, Dr. Noor, and Dr. Saber resorted to Arabic when they relied on the fact that the ENT department was not taking action. Their use of Arabic could be because they understand the medical consequences that are taking place, and they fear being held responsible for the complications that the patient has.

The doctors also showed their solidarity with each other and the ICU department in lines 277-282, as they continued to mention how the ENT department was still not cooperating with them or the ICU. This continued in Arabic, as it seems that in situations where the doctors were having problems with other departments and were working as a team that shared the responsibility for their patients, CS to Arabic took place. In such situations, Arabic is the language of choice because it helps them provide a clear explanation of the problems that happen while expressing their thoughts and feelings of annoyance and disapproval.

He even said 'I swear to Allah' to confirm this information. Using this Arabic expression serves to show the seriousness of the utterance, and his use of it showed that he believed the ICU had been pursuing the ENT for consultation. Dr. Jaber's 'ok' response indicated that he believed them when they added details to exonerate the ICU department of any blame for the missing consultation. This information in defence of the ICU expressed that they were establishing solidarity with them, as they all waited for the ENT department to respond and conduct the anticipated consultation.

Dr. Naji's solution for dealing with the ENT department was to report the department that was absent from consultation. His reaction to filing an official report was an escalation that indicated that he was upset about the lack of professional conduct of the ENT department; other doctors did not consider this action. His switch to Arabic as he told the team that they should

report the ENT department also served the relational function of mitigating face-threatening acts (Holmes & Stubbe, 2004). He did not want the team to take the blame for what might develop in the patient's condition over something that was not within their medical capability. Dr. Naji and Dr. Saad were the only Saudi doctors at that meeting, which may explain why Dr. Naji was the only one who was not reluctant to pursue an official complaint against other colleagues. Other doctors might have wanted to avoid such confrontations because they were not Saudis.

5.2.3 Episode 13.2

During this part, the doctors provided additional details regarding their correspondence with the ENT department. They mentioned the messages they sent and the responses they received.

287 Saber = ICU consultation هما كاتبين ال ICU [***]=
= ICU consultation *they wrote the* [***] =
288 [doctors talking at the same time]
289 Naji = */
290 Saber / احنا جات لينا من اول هما كدا ردوا في ال box will see after covid please ahh ***
/ *we got it {could be correspondence} from the beginning and this was their response in the* box will see after covid please ahh ***
291 = ما ردوش عليه
they did not respond to him=
292 Noor = انا كتبت note [مرتين] كتبت فيهم دي ردوش ما اللي اليومين =
= *I wrote* notes [*twice*] *in the last couple of days that they did not respond I wrote*
293 Saber [mm]
294 Noor = انه ENT: contacted كزا كزا * و on the problem براحتهم بقى (0.2)
= *that* ENT: *contacted and * this and this on the problem so it is up to them* (0.2)
295 Saber * once he was/

In this section, the doctors used Arabic to defend themselves and criticise the ENT department's lack of action. As each doctor explained in Arabic what they did, they attempted to avoid any repercussions that might happen to the patient because he was their responsibility. Their conversation implied that they were protecting themselves from repercussions that could happen

as the patient waited for consultation. Dr. Saber, in line 290, used Arabic to confirm that the ENT department had not been cooperating since the earliest stage of the patient's stay. In English, he reported the official answer from the ENT department that was recorded in the system: they will see the patient once he no longer has Covid. While part of the conversation was not clear, in line 290, Dr. Saber expressed in Arabic that they had not received any further response from the ENT team. He traced the official correspondence to demonstrate that he was doing his job as a medical professional. Similarly, Dr. Noor used Arabic to explain that she had cleared herself of responsibility for the delay when she told them that she had sent emails when she received no answer from the ENT department. She added, in line 294, 'so it is up to them', which meant that she had done all she could. The doctors' defence of themselves, as they reported their efforts during the correspondence, expressed their feeling of tension and frustration (Dewaele, 2010; Pavlenko, 2005) when they used Arabic, which was their first language, to show that they were not pleased with the situation and were aware of the possibility of negative consequences.

The doctors used Arabic to share details about their problem with the lack of response from the ENT team, and to show that, professionally speaking, they had done their part with the patient. They did not want to be held responsible for any deterioration of the patient that they had not caused. Their reliance on Arabic has both transactional and relational functions. The transactional function was in the parts where they conveyed correspondence information and added specific details. The relational function was shown when they demonstrated solidarity with the ICU department and each other while establishing the ENT as the outsiders responsible for the situation.

5.2.4 Episode 14

During this meeting, the doctors expressed concerns about several patients requiring multiple platelet transfusions. Dr. Naji highlighted a shortage in the hospital's blood bank and excessive demand for blood products. He also noted that the patient had undergone multiple blood transfusions.

424 Naji = * the daily platelet =

425 Jaber = اه ما: قاعدين نقول للناس دي لازم يجيبوا حد يتبرع =

= *yes we: keep telling these people that they need to bring someone to donate*=

426 Nader = mm =

427 Noor = **=

428 Jaber = احنا عندنا تلات ارباع يعني: =

= I mean: we have three quarters=

429 Nader = also she's on tazo on tazocyne =

This is an example of a CS expressing strong emotions (Dewaele, 2006; Dewaele, 2010). When Dr. Jaber heard that the patient had many blood transfusions and that the results of the recent tests did not eliminate the need for more transfusions, he expressed his frustration and anger with the situation. He mentioned in line 425 that they constantly told patients to bring along people to donate blood. In the same line, he used 'these people' as he referred to the patients and possibly their family members who could be around during their consultations with the patients. This use of we versus them 'these people' shows that Dr. Jaber is trying to defer possible consequences of having shortages in blood supply, which seems to be an integral part of their treatments. It seems that Dr. Jaber does not want their department to be questioned if they have to delay treatment due to a lack of blood supply.

In line 428, he expressed concerns that they did not have adequate blood supply. Dr. Jaber's comments showed that he was worried. He knew that their patients' conditions were critical and depended on the blood supply. However, depending only on the hospital's resources was becoming problematic. He expressed his wish for patients to cooperate and help them with this matter. This showed that Dr. Jaber was worried about possible problems they could have if they had scarce blood supply. In most of their treatments, the blood counts of the patients were important to them, and they often ended up giving patients blood, which meant that they needed to be sure they had what they needed at any time. Expressing his emotions in Arabic had a stronger effect than in English because all other doctors shared the same language background (Dewaele, 2006). Thus, others could understand his strong emotions and why he became uncomfortable in this situation.

5.2.5 Episode 15

The doctors deliberated on the course of action for a non-cooperative patient in a deteriorating condition. Dr. Noor reported that the patient had refused all forms of medication and even removed the attached tubes.

370 Noor [he refuse patient refuse خلاص he]/

[he refuse patient refuse *already* he]/

371 Naji / single patient is telling us what to do=

372 Noor = [اه فا]

= [*yes so*]

373 Jaber = [بال attitude] * بتاعه مش حيستحمل ال =

= [*with the* attitude] *he has he will not tolerate* * =

374 Noor = ahh [he refuse he remove the mask] و remove ال even =

= ahh [he refuse he remove the mask] *and* remove *the* even =

375 Jaber [**]

376 Noor = the oral medication /[and he's shout on nurses]

377 Saad / [وقف ال *?] /

/ [*they stopped the* *?]

378 Jaber هوا موقفه =

He stopped it =

379 Saad = لا لا { Jaber laughs} ** فيه شي موقفه عشان احوله لل [palliative]

= *no no* {Jaber laughs} ** *is there anything that is stopping him so that I transfer him to* [Palliative]

380 Noor [palliative] [I will do * report today * report today doctor]

381 [Saad Naji and Jaber talk at the same time with each other]

382 Jaber = هوا رافض كل حاجة =

= *he is refusing anything*=

383 A doctor = [**]

384 Saad [**] يعني clinically يدوا *?=

[**] *I mean* clinically *they give* *? =

385 Noor = [اه deteriorating يعني in the morning أصلا doctor Nader*****]

= [*yes* deteriorating *I mean* in the morning *to being with* doctor Nader*****]

386 Jaber [اه deteriorating هوا ال مبدأيا ال chest * سامعها هوا ولا عايز يخف ولا هوا عايز حد

[*yes* deteriorating *the situation to begin with the* chest * *he hears it and he does not want to get well nor does he want anyone to*

387 يخبط له على سدره] =

Pat strongly on his chest] =

388 Saad = يعملوا له transfer back ان شاء الله *=
= *they will* transfer back *by God's will* *=

Dr. Naji was annoyed that the patient was not listening to any of the instructions. His use of 'single patient' and 'telling us' in line 371 indicates that he does not accept that one patient is taking charge away from the entire medical team. In the same line, he interrupted Dr. Noor by wondering why the patient was telling them what to do. He did not accept the challenge of their authority as doctors. In line 373, Dr. Jaber expressed that, because the patient was in this condition, he would not tolerate any medication given to him, which implied that he could not be treated. He added in line 378 that the patient himself decided to stop some medications and laughed. His laughter was not out of amusement but rather indicated his discomfort with the situation because at that point he was telling Dr. Saad that the patient made the choice, not the doctors. They were prevented from helping the patient but this was clearly the patient's wish, which they obviously found difficult to follow. Dr. Jaber also added that the patient did not want anyone to pat strongly on his chest, even though the patient could hear how his chest had noise and required relief. Dr. Jaber's comments in Arabic regarding this condition showed how frustrated and uncomfortable he was. In this episode, Dr. Jaber commented several times on how the patient was not cooperating to show that their ability to do their job was hindered. He could not help the patient, which is the ultimate goal of the medical professionals. He expressed this in Arabic to show the seriousness of the situation and that it was out of their hands. That the responsibility was in the patient's hands can be seen in line 382 when he said that the patient was refusing any solution. This CS helped him express his emotions while seeking solidarity with other doctors (Holmes, 2014; Pavlenko, 2005).

Similar to previous Episodes, Arabic provided a stronger outlet for Dr. Jaber to express his frustration and distress because they all shared Arabic as a first language. More importantly, his comments about the patient's actions helped him gain more understanding from others regarding why there were no more actions he could take.

5.3 Code-switching for conversational management

Code-switching is evident in how doctors manage the direction and topic of conversations. This section discusses the functions of CS in conversational management. It focuses on how CS was used differently by consultants and assistant consultants to manage conversations. Episodes involve extended conversations or longer dialogues, while examples highlight specific Arabic

words or questions, resulting in shorter representations. The following episodes focus on how the consultants used CS to control the discussions.

5.3.1 Episode 16

Dr. Saber handed over a patient and informed the doctors that the next stage of treatment included a treatment plan called GSS. Dr. Mohsen had some questions about the nature of this plan and asked how to obtain more information about it. However, the consultants knew about it and interfered to clear the confusion for the assistant consultants.

20 Mohsen / ahh for this protocol the GSS is not part of
21 the protocol so enter it separately: and inform the pharmacy to pick it for
22 next patient (0.1) ah we don't have ah unfortunately ال original protocol to
next patient (0.1) ah we don't have ah unfortunately *the* original protocol to
23 check it (0.1) ah فا if we have it or share it with us because what next after
check it (0.1) ah *so* if we have it or share it with us because what next after
24 this cycle?=
24 Saad = ahm ال intensification موجود على ال system=
= ahm *the* intensification *is on the* system=
25 Mohsen = intensification بس according to doctor Jaber there is some ah another *
= intensification *but* according to doctor Jaber there is some ah another *
26 chod or or =
27 Jaber = it is called ال ah chod [C H O D] * chod of =
= it is called *the* ah chod [C H O D] * chod of =
28 Saad [هوا ال intensification]
[*it is the* intensification]
29 Mohsen = * CHOD =
30 Jaber = definitely=
31 Mohsen = the same what is in the protocol=
32 Saad = نفسها ايوا موجودة * خلاص ركب خلاص =
= *it is the same * that is it just do it*=

Dr. Mohsen thought that it was a new protocol, and he wanted to know more about it. Dr. Saad, in line 24, corrected him by informing him that it was already in the system. He pointed this

out by highlighting that it is an intensification protocol. He switched to Arabic to confirm that the protocol had already been implemented. The switch had a transactional function for discourse management (Holmes & Stubbe, 2004). It was used to correct the information for the assistant consultants. Dr. Mohsen still presented his doubts by referring to information he received from Dr. Jaber, a consultant. As Dr. Jaber was saying the name of the protocol, Dr. Saad explained that it was similar to the one referred to as the intensification that appears in the system. In line 28, Dr. Saad switched again to Arabic, 'it is the intensification', to emphasise that there was not a new protocol and that he was sure of his information. However, Dr.Mohen kept asking about it to double-check if there were any new steps. At that point, Dr. Saad responded in Arabic to tell him that it was the same and to use it. This response in Arabic seemed to serve the purpose of ending the discussion about the confusion regarding the name since the utterance also contained an order to carry out a command. Dr. Saad used Arabic to establish his authority (Holmes & Stubbe, 2004), and his use of the words 'just do it' ended the discussion about the matter. Dr. Saad resorted to giving this order, because they had more cases needing to be discussed, and both he and Dr. Jaber were sure of the information.

5.3.2 Episode 17

Dr. Reem handed over a patient, and she mentioned that he was on a consolidation protocol (consolidation is a treatment protocol). As they were discussing the current and next treatments and medications that the patient would be prescribed, Dr. Jaber pointed their attention to a specific medical term that he had heard of because the doctors were not aware of the components of this consolidation protocol.

21	Naji	= فا: she is ok الحمدلله ان she is on: she is <u>off</u> mero: and <u>cholestene</u> /
		= *so*: she is ok *thank God that* she is on: she is <u>off</u> mero: and <u>cholestene</u> shes /
22	Noor	/ على antif**=
		/ *on* antif**=
23	Reem	= *=
24	Saber	= * على only =
		= *on* * only=
25	Jaber	= ال consolidation اللي هوا بتاع ال high risk trend=
		= *the* consolidation *is the one for a* high risk trend=

26 Noor = ال antif* ايوه =

= *the* antif* *yes*=

27 Jaber = البروتوكول دا ليه؟ =

= *why is that protocol there?*=

28 Noor = ايوه ايوه =

= *yes yes*=

29 Jaber = ايه =

= *what*=

30 Mohsen= ah :اعتقد ال (0.1) اه اوك صح فيه high risk consolidation لوحده =

= ah *I think the:* (0.1*) yes ok right there is* high risk consolidation *on its own*=

31 Jaber = ال high risk consolidation لوحده دا فيه *RC=

= *the* high risk consolidation *is on its own it has in it* *RC=

32 Naji = فيه له *RC *و =

= *there is* *RC *for it* and *=

33 Mohsen = ah=

34 Jaber = فاهمني ok=

= *do you understand me* ok=

35 Mohsen = ok=

36 Jaber = طيب ان شاء الله بنهايته عايزين ندي interfecal blood

= *ok by God's will we want to give him* interfecal blood *by the end of it*=

37 Noor = ان شاء الله ان شاء الله =

= *By Allah's will by Allah's will*=

Dr. Jaber used Arabic in several turns to get answers about the consolidation. In doing so, he controlled the conversation as Dr. Noor was interrupted until he got his answers as in lines 25, 27, and 29. Dr. Jaber's experience of more than 40 years helped him realise that others were not aware of this information in the records. He stopped them and ensured that they understood the nature of the protocol and how to use it. In doing so, he resorted to Arabic in his questioning and instruction while using English for technical medical terms only. His switch to Arabic was critical at this point, as he pointed out something they all missed. Using Arabic again serves as a discourse management function (Holmes & Stubbe, 2004), as it was used to clarify the critical information that others had missed and required further explanation. During this episode, Dr. Jaber took over as the manager of the conversation because he continued to question the content of the protocol as in line 31 and did not allow for the conversation to continue until he gave and received the

information that satisfied him. His authority, represented in his status as the most experienced consultant, helped him take control and question the doctors without being interrupted or questioned.

5.3.3 Episode 18

Dr. Saber had already finished his handover and was providing one more detail. Therefore, this episode shows an example of how they moved to discuss the next patient.

139	Saber	= his total count is high of course and he has *: this patient يعني he's
		= his total count is high of course and he has *: this patient *it means* he's
140		[indicated for treatment]
141	Noor	[**]
142	Naji	ما تخلينا نخلص اللي فوق بعدين [*]
		how about you let us finish the ones upstairs first then [*]
143	Noor	[*]
144	Mohsen	= :طيب ah the case outside supposed to be with doctor X بس he …
		= *ok*: ah the case outside supposed to be with doctor X *but* he

Although Dr. Noor's question was not clear in the transcript, it was not about the last patient because of Dr. Naji's response. From his answer, it seemed that Dr. Noor was asking about a different patient that they did not get to yet. Therefore, Dr. Naji, the consultant, refrained from answering and requested that the floors be finished in order before moving on to that patient. Dr. Naji preferred following a specific order during the handover. This is evidenced by the fact that in one meeting, he instructed assistant consultants on how to present their information to him. The purpose of his request in this example could have been to maintain the order in which information was presented and make sure that they covered all patients accurately because sometimes they had patients for where a long discussion was not required. Finishing these discussions by floor order guaranteed that they would cover all the patients. While the CS in this episode controlled the direction of the conversation, it also had a social function (Holmes, 2014; Holmes & Stubbe, 2004), as it was affected by the authoritative status of Dr. Naji as he held the conversation while maintaining his solidarity with others as he made his request. Line 142 shows that he did not want to disrupt the order of the handover while simultaneously explaining the need for order at the same time.

5.4 Interruptions in conversation management

The following Episodes exemplify how interruptions using CS managed the discussions among the doctors.

5.4.1 Episode 19

In this segment, Dr. Noor provided a handover for the same patient as in Episode 6, but this extract was from the second meeting, while the one in Episode 6 was from the third meeting.

908		his ear maybe he has complicate of * secondary bacteria <u>but</u> ENT refuse
909		to come she said يعني he said ah patient already on * antibiotics totally
		to come she said *I mean* he said ah patient already on * antibiotics totally
910		<u>covered</u> we will do add nothing after patient re_ covid improve/
911	Jaber	= ما رضيوش يدوا ** برضه /
		/ they also refused to give ** =
912	Noor	= اه اه ما two days [I inform two days] oh يا ال [ID said] if: ah يعني we have
		= *yes yes for* two days [I inform two days] oh *or the*[ID said] if: ah *I mean* we have
913		to=
914	Naji	[بس they still have]
		[*but* they still have]
914	Jaber	[**]

During this discussion, Dr. Jaber interjected to highlight that the ENT department had not offered any solutions or medications. This addition in Arabic aimed to emphasise the ENT department's lack of cooperation. Dr. Jaber interrupted in Arabic because the situation is server and led to consequences in the treatment plan. Interrupting in Arabic delivered his disapproval and defence of the team faster and more clearly. Dr. Jaber intended to ensure that his fellow assistant consultant was not responsible for any potential side effects resulting from the ENT department's lack of cooperation. From this point onwards, the doctors recognised the need to halt certain treatments until the patient improved, awaiting consultation from the ENT department.

5.4.2 Episode 20

Dr. Noor updated the team about a patient who was still on the Covid floor.

1055 Noor = merobenam mecafungen (0.1) vancomycn colesten no culture positive

1056 ahh بس ال covid pneumonia :ال positive ahh/

ahh *but the* covid pneumonia *the*: positive ahh/

1057 Jaber =*هما عادوا لها ال /

=* *did they repeat the* /

1058 Noor = ال ايه ؟ =

= *the what?* =

1059 Jaber = عادوا لها ال swap تاني =

= *did they redo the* swap *again* =

1060 Noor = لا طول ما هيا فيه ال ال machine او فيه ال respiratory stress ما no indication

= *no as long as she is on the the* machine *or that there is a* respiratory stress *no* no indication

1061 انه هما يعيدوا لها ال/ [covid swap]

that they would repeat the /[covid swap]

Dr. Noor informed them about the patient who tested positive for Covid, necessitating adjustments to her treatment plan. Dr. Jaber enquired about whether she had undergone another swab test, as this detail had not been mentioned in Dr. Noor's handover. He interrupted to seek clarification of this information. The doctors were interrupted if there was something questionable or needed further details, and using Arabic helped them reach their answers quickly while ensuring the leased chances of misunderstanding.

While these Episodes show how the consultants used CS to close the discussion or redirect it, the following Examples are from the assistant consultants. In these Examples, code-switching was performed using a few words to ask others if they were done (Example 1), ask the doctors to move to the next patient (Example 2), or show that they were done (Example 3).

5.4.3 Example 1

472 Naji = horrible: (0.2) nausea عنده very horrible so we'll see tomorrow how

= horrible: (0.2) nausea *he has* very horrible so we'll see tomorrow how

473 we:[**]

we:[**]

474 Noor = خلصتي[خلاص كدا]

[*is that it*] *are you done* =

475 Reem = mm (0.2)

476 Noor ahh present my <u>cases</u> ah case number one في ال room one zero …

ahh present my <u>cases</u> ah case number one *in the* room one zero …

After Dr. Naji commented on the patient's case, which was reported by Dr. Reem, Dr. Noor asked her in Arabic if she was completely done. When she got from Dr. Reem an indication to start, she started her handover. Her question to Dr. Reem shows that she was establishing solidarity with her (Holems & Stubbie, 2004) because Dr. Reem had recently graduated and joined them, and Dr. Noor did not want to start before Dr. Reem had finished her handover. Dr. Reem was the least experienced among them. The use of Arabic decreased the formality among them

5.4.4 Example 2

285 Naji اللي بعده =

next =

286 Saber = mm طيب بقية ال floor one zero two <u>Mai</u> ahh APL high <u>risk</u> ah CR post…

= mm *ok the rest of the* floor one zero two <u>Mai</u> ahh APL high <u>risk</u> ah CR post…

Dr. Naji told Dr. Saber to move to the next patient after the doctors had a long conversation about the residency status of one patient. Since they had presented all their options for that patient, Dr. Naji wanted to move to the next one. He said 'next', and Dr. Saber complied. Dr. Naji used the switch here to represent his authority (Holmes, 2014), as he code-switched to Arabic to urge them to move on to the next patient and stop talking about the previous one. Dr. Saber and others also complied.

Although in this example Dr. Naji was the one who asked for the next case to be presented, sometimes the doctors would say that they were presenting the last patient. For instance, in the next example, Dr. Noor started by saying, 'This is the last patient'. In doing so, he gave cues to the next doctors to prepare themselves to present their patients next.

5.4.5 Example 3

906 Saad = *=

907 Noor = دا اخر patient in one one two Saud Mohammed Ali CML patient with...

= *this is the* last patient in one one two Saud Mohammed Ali CML patient with...

The assistant consultants were making sure that others would know that they were done presenting each case before moving to the other one or that they had finished reporting the patients under their care. This made their reporting and case discussion more precise since it made the focus on the next patient while the latter gave other doctors a sign that they could go next. This shows that the doctors cared about how they organised their turns.

5.5 Using Code-switching with tag questions

Another notable CS in the data was the use of Arabic tag questions. When the doctors used them, they used Arabic, even if the previous utterances had been in English. In total, CS with the tag question using (صح) 'right' appeared 34 times in all six meetings. The samples were all from meetings 1,2 and 3. The tag questions serve two functions. They were used to affirm that the information of the tag question user was correct (Examples 1, 2, 3, 4, and 5). They were also used to update the information (Examples 6 and 7).

5.5.1 Affirming information

5.5.1.1 Example 1: Dr. Noor wanted to be sure that the patient had not started any steroid treatments so that she had full information while taking care of the patient in the next rotation.

113 Saber = * follow a set of a <u>screen/</u>

114 Noor / still no steroid صح?

/ still no steroids *right?*

115 Saber no steroid today we're start /[ان شاء الله]

no steroid today we're start /[by Allah's will]

In line 114 Dr. Noor uses a question tag in Arabic صح ('right') with rising initiation to signal that this should indeed be understood as a question. It is likely that Dr. Noor used English in the first part of her question to align with Dr. Saber's use of the language and because it is part of the medical information about a treatment, which doctors usually resort to English when they talk about it. However, she also needed confirmation and certainty, which might have motivated the use of an Arabic question tag. The steroid would be given because she would be part of the team taking care of the patient in the next round. Using this discourse marker 'right' shows that Dr. Noor is perhaps more confident in getting accurate information by using Arabic since during

the meetings Arabic has been used frequently during the discussions showing that the doctors are flexible in using Arabic next to English (Martes, 2009).

5.5.1.2 Example 2

683 Mohsen = بس له فترة من ما انطلب ممكن /
but it was a while since it was ordered=/

684 Jaber = [هوا يعني اللي اللي موجود] في البروتوكول مكتوب ال hyper cilas صح تمام؟ =
[*well this is the the one available*[*what is written in the protocol is* hyper cilas *right correct?*=

Here, Dr. Jaber used also the same tag 'right' to confirm his information about which medication is in the protocol. His word choices included 'right' and 'correct' as he was aiming for the accuracy of the information. Similar to example 1, it appears that Dr. Jaber favours the use of Arabic to maintain accuracy. Ensuring that the information is accurate is critical in their field of work. They need to arrive at a precise answer as they discuss patients' treatment. They aimed to avoid mistakes as much as possible to ensure better treatment for their patients.

5.5.1.3 Example 3

93 Saber = [مع ال oral vanco صح]
= [*with the* oral vanco *right*]

94 Noor [ahh و ال oral] vacno صح =
[ahh and the oral] vacno right =

95 Reem = لا oral vacno ال ID خلاص وقفنا too فما ما /
no oral vacno the ID stopped it already too so not/

The same pattern is evident as Dr. Noor and Dr. Saber used Arabic when they wanted to double-check their information that the patient would also be on vanco. This example confirms that doctors choose Arabic when asking confirmation questions. It seems that the use of Arabic is associated with accuracy and clarity since this tag question has mostly been used in English, except once by Dr. Mohsen, who was asking about a dosage amount from the records.

5.5.1.4 Example 4

393 Noor = * palliative=

394 Saad = هوا جانا من مدينة * صح؟ =

= *he was transferred to us from city X right?*=

395 Noor = hospital X=

They discussed a patient who did not respond to their attempts to treat him. Dr. Saad wanted to know which city he came from, and he received a response. They had patients transferred from many hospitals, and Dr. Saad wanted this information because they had decided to transfer the patient out of their hospital and back to his original hospital.

While this example continues to follow the same explanation for CS, it also shows another motive for CS. The question was asked in Arabic by Dr. Saad (consultant and head of the department) which could demonstrate the acceptance and flexibility of choosing Arabic during discussions (Matras, 2009). It might have encouraged other doctors to do the same since it was acceptable by the head of their department and other consultants as well.

5.5.1.5 Example 5

391 Jaber / هيا بتاخد seventy five once مش كدا؟ =

/ *she is taking* seventy five once *right*? =

392 Noor = [ah one] seventy five one fifty =

393 A doctor [three]

The doctors discussed increasing the medication dosage. The dosage for the patient was mentioned earlier in the handover, and Dr. Jaber wanted to ensure that he had accurate dosage information. The Arabic language was used again to obtain accurate information.

5.5.2 Getting updates

5.5.2.1 Example 6

163 Naji = she's off oxygen صح =

= she's off oxygen *right* =

164 Noor = [off oxygen]

165 Mohsen = [oxygen اه] past few days off oxygen * improving no more fever five….

[*yes* oxygen] past few days off oxygen * improving no more fever five…

In this example, the same tag question is used but for a different function. Dr. Naji used it to get updates on the patient's condition. While his question was mostly in English, he switched to Arabic at the end. It might seem that Dr. Naji double-checked his information, but the extract was part of a longer conversation in which they were discussing what they needed to do next. Therefore, Dr. Naji wanted to know whether the patient was breathing on her own. Choosing Arabic shows that it is deliberate to let the other person understand that he wants updated information about the patient, and adding Arabic makes it more urgent, easier and quicker to ask the question since they all share it as the first language. This led to more detailed information regarding the patient's oxygen levels.

5.5.2.2 Example 7

139 Naji = ال vanco * positive * blood culture صح؟ =
= *the* vanco * positive * blood culture *right*? =
140 Saber = ahh * كان عنده لا * /
= ahh * *no* * *he had* */

While the conversation was not completely clear in the audio, the use of 'right' indicated that Dr. Naji wanted to know if something specific was revealed in the results. Arabic was used again. What is noticeable is that the doctors needed to ask many questions while deciding what to do, and Arabic was a part of their questions. It seems that CS to Arabic helps them reduce the amount of time needed for thinking (Matres, 2009) while guaranteeing that they obtain the information without any misunderstandings and can arrive at an appropriate and precise decision The doctors' daily operations were based on extensive, constantly updated information that they received for each patient. Any decision that they made needed to be supported by precise and updated data, even though they had limited time during their meetings. This could be the reason why they constantly used the tag question 'right?' in Arabic. This ensured that they could continue their work while also ensuring that the information they had was accurate. In their communication, they need to be fast and direct. Using Arabic helped them achieve this communication with minimal mistakes in interpretation. This is supported by Matras's (2009) claim that bilinguals would CS with specific words, the tag 'right' in this case, to reduce any need for choosing more complex words when they have the flexibility of choosing a simpler option and the Arabic right is certainly simpler that the formulation of tag questions in English, which requires more complex grammatical manipulation.

5.6 Religious phrases as prominent examples of code-switching

Another prominent use of CS was observed in relation to phrases that have religious connotations and signal Muslim identity. These phrases included: الحمدلله which means 'thank Allah', ان شاء الله which means by 'Allah's will', and ولله which is 'I swear by Allah'. The table below shows the number of times each phrase was used at each meeting.

Table 3 *Religious phrases frequency*

Phrase	Meeting one	Meeting two	Meeting three	Meeting four	Meeting five	Meeting six	Total
Thank Allah	3	7	1	0	8	9	28
By Allah's will	19	7	14	10	11	13	74
I swear by Allah	3	7	5	6	0	2	23

5.6.1 Using the religious phrase 'thank Allah' to express emotions

The Muslim religious expression الحمدلله means 'thank Allah'. It showed the emotions that doctors experienced in their work while handling the pressure of treating their patients. It is used to express gratitude and appreciation for a piece of good news or positive outcomes. Following good news, this expression conveys happiness and gratitude. Following bad news conveys acceptance of the outcome. Doctors used it 28 times in all meetings, except for Meeting 4. In the three analysed meetings, they were used to indicate their relief and gratitude for the outcomes when they were reporting about patients (Examples 7, 8, 9, 10, and 11). The expression was featured in the data 11 times in the first three meetings, even if the conversations were mostly in English; the expression was used as a token without overextending the switch to Arabic for longer conversations. Using it to express relief and gratitude is evident in Example 7, in which 'thank Allah' is used by the doctor to report on an admitted Covid patient who was on oxygen support but started breathing on his own.

5.6.1.1 Example 7

119 Saber = the patient is <u>desating</u> بس [his] saturation is maintain above ninety five

= the patient is desating *but* [his] saturation is maintain above ninety five

120 all the high */

121 Noor [*]

122 Naji / off oxygen?=

123 Saber = yes off oxygen above nine to five since admission الحمدلله

= yes off oxygen above nine to five since admission *thank Allah*

Using this expression helps to establish shared solidarity (Dewaele, 2010; Holmes, 2014). The doctors all speak Arabic, but they come from different countries. The shared religious identity downplays the boundary of their different backgrounds as they all share the same Muslim identity. The doctors are working together as a team. Thus, using gratitude phrase that they all aware of its meaning to acknowledge a positive progress with a patient reflects a special meaning of gratitude they all share and believe in. The same function comes into view in Example 2, in which Dr. Noor reports a patient's progress. She used the expression 'thank Allah' to express her relief that the patient was responding well to the medication she had been prescribed.

5.6.1.2 Example 8

756 Noor = regard antifungal she's on atrofecene we ** relation for her and patient

757 الحمدلله she's doing fine ahh ah the: bronchoscopy done for her this week

thank Allah she's doing fine ahh ah the: bronchoscopy done for her this week

The same pattern was observed in Examples 9, 10, and 11, in which the expression was uttered in situations where a positive outcome or good news was communicated.

5.6.1.3 Example 9

21 Naji = فا: she is ok :ان الحمدلله she is on: she is off mero: and cholestene /

So: she is ok *thank Allah that* she is on: she is off mero: and cholestene /

5.6.1.4 Example 10

435 Nader = Saleh ahh case of: lapsed AML ahh most ah consolidation ah with IDAT

436 ah today ahh today day ten first * ah today الحمدلله patient is going well he is

today ahh today day ten first * ah today *thank God patient* is going well he is

437 a_ afebrile he has

5.6.1.5 Example 11

532 Jaber = هيا يعني نجيب فكرة انا بافكر =

= *well I mean we need to think of something I am thinking* =

533 Nader = الحمدلله * ال marked improvement *=

= *the * thank Allah* marked improvement *=

534 Jaber = طب يعني فيه some sort يعني =

= *so this means there is* some sort *this means* =

While the function remains the same in all examples, only the location where "thank Allah" was used had a different placement. In examples 7 and 9, it was used after reporting the positive patient's progress. In Examples 9-10-11, it appeared before reporting good news. What consolidates that this phrase has a positive function, gratitude, and relief, is related to the words or sentences used before or after it that have a positive meaning in most examples. For instance, 'doing fine' in example 8, 'she is ok' in example 9, 'patient is going well' in example 10, and 'marked improvement' in example 11.

5.6.2 Using the religious phrase 'by Allah's will' for plans and hopeful emotions

The phrase ' ان شاء الله' translates to ' by Allah's will'. It is a Muslim expression often used in daily conversation for purposes similar to how the doctors were using them. Doctors frequently employ this phrase for various functions, such as affirming plans and expressing hope. The phrase was used 74 times during all the meetings.

The following examples (Examples 12, 13, 14, and 15) showcase the function of affirming commitment to ongoing and future plans.

5.6.2.1 Example 12: Dr. Saber used 'By Allah's will' to confirm the duration of the patient's antibiotic treatment.

78 Saber = started yesterday on: amoxicillin plan for total seven days ان شاء الله (0.2)

= started yesterday on: amoxicillin plan for total seven *by Allah's will* (0.2)

5.6.2.2 Example 13: This phrase was used to reaffirm commitment to the patient's treatment plan.

90 Saber = ah actually they recommend to continue antiembrezol over the duration

91 of chemotherapy=

92 A doctor= ahm =

93 Saber = till he finish all the chemo ان شاء الله (0.1) ahh (0.3) and also he has ***

= till he finish all the chemo *by Allah's will* (0.1) ahh (0.3) and also he has ***

5.6.2.3 Example 14: Dr. Noor used 'by Allah's will' to express her intention to commence treatment on day seven.

612 Noor ah follow up with counts we will start GCF on day seven ان شاء الله (0.2)

ah follow up with counts we will start GCF on day seven *by Allah's will* (0.2)

5.6.2.4 Example 15: This instance indicated the confirmation of ongoing plans.

637 Noor = ahh ال patient بس next Sunday ان شاء الله he will complete his dental

= ahh *the* patient *but* next Sunday *by Allah's will* he will complete his dental

638 extraction still فيه three remaining dental P_ P_ ahh root will be extracted…

extraction still *there is* three remaining dental P_ P_ ahh root will be extracted…

The doctors mostly used this phrase to conclude the plan they reported. It follows the same location in the next examples, even though the function is different. The other function of the phrase is to express hope for a better outcome (Examples 16, 17, and 18):

5.6.2.5 Example 16: 'By Allah's will' conveyed hope for a positive outcome despite the patient's critical condition.

227 Mohsen = ahh today they ask about the code status we: explain to them that

228 patient has only: one organ affection otherwise she's in: she passed this

229 acute setting she will improve ان شاءالله I know she's in critical condition

acute setting she will improve *by Allah's will* I know she's in critical condition

230 but we have to try ahh next Ahmad in CCU ahh (.)

5.6.2.6 Example 17: Dr. Naji and Dr. Noor used 'by Allah's will' to express their hope and belief in a successful treatment.

228 Naji = and I think he had he will tolerate it =

229 Noor = ان شاء الله=

= *by Allah's will* =

230 Naji = ان شاء الله =

= *by Allah's will* =

231 Naji = but ** we use to always use it with the ** until the paper come out with *=

232 Noor = mm=

5.6.2.7 Example 18: Dr. Noor used 'By Allah's will' to confirm her intent to check for test results next week, while Dr. Naji expressed his wish for positive news.

787 Noor فا: هيا هيا نشوف دكتور شاكر يمكن]/

/[*so: she she will see doctor* Shaker maybe

788 على] ال first we_ :ال rotation of: next week ان شاء الله /

on] *the* first we_ *the*: rotation of: next week by *Allah's will*/

789 Naji ان شاء الله تكون / in

/ *by Allah's will she will be* in

790 morphological remission =

All participants were not only Arabic speakers but also Muslims. This explains why they all seemed to have a shared understanding of the meaning behind using religious phrases in their conversations. This entailed that they all understood when it was used to convey hope or to affirm future plans. More importantly, this was the phrase used the most by doctors 74 times. This indicates a lot of hope in the success of their treatment plans. The previous chapter that analysed decision-making had shown how the doctors face a lot of uncertainty as they treat their patients even as they rely completely on science in their medical treatment. They needed to change medication and many times entire protocol plans as expected and unexpected complication with their patients' progress took place. Thus, for them using 'by Allah's will' indicates their hope for Allah's support to help the patients heal especially that they did they part of providing the medical care but healing the patient is in the end up to Allah' will. Muslims believe in Allah's divine power, which is why the doctors used this phrase numerous times. Even as it might seem to occur unintentionally since they do not elaborate in Arabic after using it, it still indicates that deep religious believes that are embedded in their Muslim identity.

5.6.3 Using the religious oath 'I swear by Allah' with opinions

Unlike previous religious phrases, the oath 'I swear by Allah' had a lower frequency. It was used 23 times in all the meetings. However, it still has significance because it was used at critical points in the meetings when doctors were trying to validate their choice of treatment. The original

use of oaths typically establishes the credibility of speakers and their messages and carries the legal and authoritative validity of what has been said (Abdel-Jawad, 2000). However, oaths in daily conversations influence the hearer to accept what the speaker is saying or to take them seriously. When CS takes place in the form of oaths such as 'I swear by Allah', it has several functions such as validation and support (Examples 19, 20, and 21) and defence (Example 22).

5.6.3.1 Example 19: Dr. Naji was persuading the doctors to start chemotherapy with an HIV patient.

657 Naji he's fit والله he's:/
He's fit *I swear by Allah* he's:/

658 Jaber / هوا part ال من ال HIV * =
/ *well* part *of the* HIV * =

To support his point of giving the patient chemotherapy, Dr. Naji said 'he's fit *I swear by Allah*'. When he used Arabic to emphasise his opinion, he used this oath. This switch could have reinforced his belief that his choice was good and encouraged the doctors to agree with him.

5.6.3.2 Example 20: The doctors were debating which medication would be suitable for the patient, and Dr. Naji informed them that one specific medicine was a good choice.

704 Saad **=

705 Naji = انا والله من اول hyber * ahh =
= *I swear by Allah that from the beginning* hyper * ahh=

706 Jaber = اه =
=*yes*=

707 Saad = طيب =
=*ok*=

708 Naji = بس زي ما بس again * كل واحد حسب ما هو متعود فانا متعود استخدم
= *but just like but* again *it depends on what each one is used to using because I usually use* *

709 Jaber = **=

710 Saad = ليش لا =
= *why not*=

711 Naji = والله hyper * كوبس بس انا على فكرة coz: nobody will transplant him this is the

= *I swear by Allah* hyper * *is good but by the way* coz: nobody will transplant him this is the

Dr. Naji uses CS to support the use of this medication, as indicated by his use of 'I swear by Allah' twice. The first time Dr. Naji used it was in line 705, to stress that, from the beginning, he supported the use of the medication in the protocol. Despite missing part of his line, other consultants' agreeing responses indicated that they agreed with his statement. Then in line 711, he used 'I swear by Allah' again to convince others that this is a good option combined with the word 'good'. He continued to reaffirm his opinion and convince the doctors by telling them that the patient's difficult condition would prevent him from receiving a transplant, making the medicine a good option for treatment at that stage.

5.6.3.3 Example 21: The doctors wanted to reach out to the patient's family to discuss the critical development of his condition.

336 Jaber = انا I think yes (0.3) بس هل هوا بيجيله حد ما اهله عشان نلكمهم =

= *I* I think yes (0.3) *but does any of his family visit him so that we talk with them*=

337 Naji = والله ما شفت =

= *I swear by Allah I did not see*=

Dr. Jaber asked in Arabic about the patient's family to learn whether they were nearby as the doctors needed to talk to them about the patient. It appeared that they needed family members to be present when they delivered bad news to a patient about his deteriorating condition. Dr. Naji responded by saying that he did not see anyone else. He was not questioned when he said 'I swear by Allah'; these words were used as confirmation. Using this oath in Arabic indicates that he would be more believable as he uses an expression that all doctors know and use since they are all Muslims and Arabic speakers. This shared joint religious identity makes it stronger to validate his words and actions in Arabic rather than English.

5.6.3.4 Example 22: This was part of an episode in which the doctors had issues with the ENT department that was not cooperating. They mentioned other departments and doctors trying to help them pursue the ENT department.

281 Saber = Doctor X مره عشرين من بتاع كلمهم * ال في برضه والله =

= Doctor X *in the * I swear to Allah had also talked to them like twenty times*=

Dr.used ‘I swear by Allah’ to confirm that another doctor was trying to reach out to the uncooperating department. This Arabic expression serves here to show someone’s seriousness. The lack of cooperation led to serious consequences for the patient’s health, which could be why the doctors were trying to avoid liabilities. Using the oath adds strength to their defence, as the expression is used to enforce serious actions. In this case, it was them defending themselves and others and using ‘I swear by Allah’ indicates that they taking the matter seriously.

The Episodes and Examples indicate how CS played a pivotal role during the doctors’ meetings which had the ultimate aim of providing treatments that would benefit patients. This explains why CS became a resource used regularly for achieving transactional interactions, conversational management, expressing negative emotions, and being part of religious phrases and tag questions and religious phrases. While each of the discussed themes had its functions, it is important to mention that the functions were also intertwined in many themes. For instance, expressing emotions was evident in other categories such as in religious phrases used as they discussed transactional outcomes.

The purpose of the meetings was to arrive at the best possible decision when it comes to treating patients and CS was a supporting tool in this process. In particular, the use of Arabic to elaborate on various points by asking questions or asking for clarifications to obtain more specific patient details in order to make a safe and appropriate decision. They did not rely solely on handover reports; instead, they often delved deeper into information provided in the reports, assessed patient progress, and modified treatment plans accordingly. Due to the sensitive nature of these meetings and their potential impact on patient treatment, the use of Arabic served to minimise misunderstandings during patient information exchange. This ensured the preservation of healthcare quality without compromising patient’s lives.

Using CS for relational outcomes allowed doctors to express their emotions, defend their medical expertise, uphold their status as professionals who follow the ethos of medicine and maintain solidarity in the team. In several episodes and examples, doctors had to defend themselves and their team members when they faced complications. This defence shows that the process of decision making is not a straightforward and liner process. The DM chapter shows that justification is a crucial part in many Moves and Steps in DM. It might be assumed that decisions are made based on rationality that leads to the best treatment option. However, the conversations that the medical team had on the meetings show that that there is a great degree of messiness in this backstage interaction. The doctors shift responsibilities and express their emotions. This indicates the awareness that the doctors have with the criticality of their context, which is expected

but this also shows that when they come to work, they understand that their choices have consequences. Again, this is expected that doctors are aware of this, but it means that there is an added stress to their job performance. Thus, working as a team is a necessary part for the team to be able to continue performing well in their job. There is an added security in the collective responsibility of the decision as it not only protects the doctors form making mistakes, but it also leads the actual reason for having them there which is ensuring that patients get the best medical treatment.

The quick and fast nature of the interaction shows that time is of essence in the meetings. This can explain why CS was used considerably to expedite the confirmation of information and the receipt of updates such as in using tag questions. The religious phrases were evident numerously in the interactions for different functions such as express positive emotions such as hope and gratitude, to confirm doing an action or as a validity stamp. This highlighted the connection that the team has they use phrases well known to all of them since they are all Muslims. It is possible that they have used some involuntarily. The use of religious phrases in the presence of team members that are not Muslims might hinder the communication unintentionally. Newcomers to Saudi hospitals need to be aware of the cultural and religious meaning of the phrases as they will hear them a lot based on the data in this study. Knowing the meaning and importance of the phrases will help the non-Muslim team member blend easier into the team without feeling excluded.

Chapter 6: Humour Analysis

The present chapter aims at providing the analysis of the use of humour based on the data from the doctors' meetings. It contains 16 episodes of humour from five meetings, and laugher is used as an indicator for humour. Results show that humour is used in the meetings to fulfil a variety of purposes, most of which would not essentially be associated with the regular functions of humour. These include three main functions which are dealing with bad news, mitigating face-threats and solidarity building. While each function is represented in an independent category, all functions overlap with different Episodes. The analysis reveals that humour has been initiated mostly by consultants in eleven Episodes suggesting that in this particular professional context humour is the discourse resource employed by those who are at the top of the medical hierarchy.

6.1. Theme one: Using humour with bad news and situations

Humour is used as a reaction to bad news (Episode 1 and 2), mentioning death (Episode 3 and 4) and dealing with errors at work (Episode 5 and 6). The humour gives the doctors an outlet for expressing their negative emotions that indicate stress, worry and annoyance while they deliberate and make decisions.

The first and second episodes for analysis are part of the first meeting, in which seven doctors were present: assistant consultants Dr. Noor, Dr. Reem, Dr. Saber and Dr. Mohsen and consultants Dr. Saad, Dr. Naji and Dr. Jaber.

6.1.1 Episode1

Assistant consultant Dr. Mohsen receives updates during the meeting about several patients, one of whom is Jehan, whose case and treatment have already been discussed earlier in the meeting. When the assistant consultant Dr. Saber reports Jehan's case, he mentions that she has tested negative for COVID. However, because she has developed a fever, the COVID test is repeated to see if the fever is a side-effect of chemotherapy or caused by the virus. In the meeting, the doctors talk about the patient again and consider the new results.

854	Mohsen	=the second update Jahan Covid positive=
855	Saber	=[mm?]=
856	Jaber	=[صوتوا] [كامله شغاله فيها * ال]
		*[Scream] [the entire * is getting infected]*

857	Mohsen	= [Jehan Covid positive]=
858	Saber	= oh
859	Noor	{laughs}
860		Jaber and Saad talk with each other
861	Noor	الحمدلله انها طلعت قبل ما انا
		Thank Allah she became positive before I
862		{Now more than one doctor talk with each other}

This episode illustrates how doctors react with humour upon receiving negative news about their patients. In line 857, consultant Dr. Jaber tells the doctors to "scream". He gives this sarcastic order to express his annoyance and frustration, as such a development (the patient's fever) means rethinking the patient's chemotherapy plan. He tells the doctors to "scream" because he understands how the new development will complicate treating the patients and add to the distress of dealing with more possible complications from COVID, which might delay or affect the doctors' treatment plans. His use of humour serves to lighten the negative repercussions, which has been reported as one of the reasons for using humour in medical settings (Attardo, 2020). Medical professionals must deal with difficult problems relating to their patients, and humour can provide an outlet to manage such problems. The doctors in this example realise that they need to rework their treatment plans and consider added complications due to COVID, and Dr. Jaber's use of humour serves to ease the new complication in the situation (Pleaster, 2009). It is interesting that Dr. Jaber uses Arabic to deliver his humorous thought. According to Gumperz (1982), such a choice is an example of metaphorical code-switching, since there is no change in the setting or context of the conversation; rather, Dr. Jaber intends to convey his annoyance about the situation in Arabic and through humour. The use of humour through code-switching helps to create rapport (Brunner & Diemer, 2018). In this example, the rapport is created through Dr. Jaber wanting all present colleagues to join in 'collaborative' screaming to let their frustrations out. This example also includes Dr. Noor's reaction to the news, which is laughter. As part of my observation of the meeting, I noticed that Dr. Noor laughed and put her head face down on the table as she continued laughing. She expressed her dismay at the news that the patient did test positive to COVID based on the recent test. Trouvain and Truong (2017) identified that laughter could be a sign of positive surprise. In this case, however, the laughter is a response to a negative surprise.

6.1.2 Episode 2

The doctors discuss the best treatment for a chemo patient who is having serious complications and undergoing an infection. The doctors try to find the best treatment, and some of the tests reported in the meeting are inconclusive. The tests' results do not help the doctors rule out possible causes for why the patient is not doing well. The doctors find it difficult to determine the source of the complications nor the cause of the infection.

252 Nader ahh also eco ahh was <u>done</u> ahh * but cannot roll out endocarditis /

253 Noor / طب

/ *because*

254 مستنيين ال platelet تتحسن عشان ال creatine =

we are waiting for the platelet *to get better so that the* creatine *gets better=*

255 Jaber = هل: يسيب لك <u>حاجة</u> تخليك مش على بعضك {laughs} =

= *Will: he report any <u>information</u> that puts me at ease* {laughs} =

256 Naji = عشان لو ودوك المحكمة انا قلتلك

= *Well if they took you to court remember I warned you*

257 Jaber [take it easy انا محدش قال لي]

[No one told me to take it easy]

258 Noor هوا مش [* حيعمل]=

*Is not he [going to do *]=*

559 Nader = بالزبط بالزبط this is eco * just to inform ok=

= *Yes* this is eco * just to inform ok=

Consultant Dr. Jaber expresses his frustration and the pressure that he is under as he considers the patient's condition. He shows his dissatisfaction about the information that assistant consultant Dr. Nader reports, as he comments in line 255 to indicate that Dr. Nader is only stressing him out with what he is reporting. He also laughs to express his worry and discomfort over the continuous failure to discover or rule out possible reasons for what is making the patient's condition worsen. Dr. Jaber uses sarcasm in line 255 to talk about how all the tests' results are useless for him because they are not helping him reach a diagnosis. He comments that what he is hearing from Dr. Nader is not helping him; on the contrary, it is giving him more stress and pressure while he tries to help the patient. Dr. Naji responds to him in line 256 by imagining a situation where Dr. Jaber is dragged to court because he failed to help the patient, implying that

he killed the patient. Dr. Naji creates this imaginary dark scenario as a threat because he can see how difficult the case is. This dark sense of humour is a warning to his colleague to figure out a solution soon. However, Dr. Jaber rejects Dr. Naji's dark humorous attempt in line 257 by showing his annoyance over the situation and defending himself by mentioning that "no one told me to take it easy". This indicates that the job is not easy or cannot be taken easy and that Dr. Jaber is under pressure to come up with the treatment soon to protect the patient. It also shows his burden while working on this case and the need to reach a decision fast regardless of how inconclusive the tests are.

So, in this exchange, humour is used in the form of laughter, sarcasm and dark imagined scenario to navigate a face-threatening situation and to express uncertainty and discomfort. Similar to the previous episodes, Arabic is the language both consultants use to convey that kind of humour. Starting with humour and laughter, Dr. Jaber uses these to reflect on his dilemma as a consultant who needs to solve the patient's problem by using sarcasm. He uses humour to express the pressure as he deals with this serious situation (Trouvain & Truong, 2017). Regardless of the inconclusive test results, he needs to come up with a source of the patient's complications and treat it accordingly. Dr. Naji's hypothetical fatal situation is his warning for his colleague to find a solution to help the patient and a reminder of the huge responsibility. He relies on humour to convey this message while trying to maintain good relations with his colleague (Taylor & Bain, 2003). This provokes a defensive response from Dr. Jaber, in which he conveys that he already knows that he needs to find a solution soon implying that he knows his job.

As for using Arabic in this exchange, both Dr. Naji and Dr. Jaber need to convey a specific message to each other. They are expressing that the situation is too difficult to handle quickly and, at the same time, acknowledging there is a pressure to come with a solution fast because patient's recover might be otherwise in jeopardy. When Dr. Jaber starts the code-switching sequence in Arabic, Dr. Naji also uses Arabic in his response. This is consistent with Brunner and Diemer's (2018) findings that the initial code-switching invites participants to use their plurilingual recourses as a discourse strategy, and that it is expected for the code-switching to be reciprocated. Dr. Jaber also uses laughter after delivering his message in Arabic, which is also similar to Brunner and Diemer's (2018) finding about code-switching. In their study, using laughter after code-switching is a way of reducing the awkwardness of using a language other than English, and Dr. Jaber uses laughter to reveal his frustration and discomfort.

The next episodes for analysis (7–10) are part of the third meeting, in which seven doctors were attending the meeting but only six were participating in the discussion and were this study's participants. The assistant consultants were Dr. Noor, Dr. Saber and Dr. Mohsen, a non-participating male assistant consultant. The consultants at the meeting were Dr..Saad, Dr. Naji and Dr. Jaber.

6.1.3 Episode 3

The doctors are talking about using a strong medication for treating a high-risk DNR patient having complications, which suggest a strong possibility of liver failure and a constant need for platelet transfusion. The patient is also complaining of pain when defecating and has a fever. Dr. Saad is concerned that the medication is too strong for the patient in her current condition.

544 Jaber ولله ممكن يعني نتكلم مع /

/ well we could discuss it with

545 / يعني ممكن تبدأ هولها و تديها* (0.3) يا مافيش {sighs} أهلها فيها يعني ماهي ما كدا يا

her family because it's either this medication {sighs} *or nothing* (0.3) *you could start and give it to her */*

546 Saad = انه ما فيه ارحم لها من: ال catch /

/ the catch *is that the only merciful solution for her is:=*

547 Jaber = {laughs}

In response to Dr. Saad's concern about using a particular type of medication with the patient, in line 544 Dr. Jaber suggests talking with the patient's family prior to giving the medication and to explain the situation for them, which puts the responsibility of administering the medicine to the patient in the hands of the patient's family. However, Dr. Jaber expresses that they either take this option or they do not have any other treatment. In line 546, Dr. Saad replies that there is only one kind and merciful end for the patient, but he does not complete the sentence. He is implying that death is the only solution for the patient's pain, since the patient is a hard-to-treat DNR patient, and the complications from using other medicines might add to the existing complications. Dr. Saad avoid saying the word death out loud because it is expected for them to save the patient rather than admit that death is the only saviour for the patient in her existing condition. Dr. Jaber laughs in line 547 in response to Dr. Saad's untold words, and considering

the severity of the patient's condition and how the end of the patient's life is the only solution, Dr. Jaber's laugh is a discomfort laugh, not a pleasant one. Laughter fulfils social functions, as it can be associated with nervousness or serve a face-threatening function (Trouvain & Truong, 2017); in this situation, laughter expresses Dr. Jaber's distress, as the patient might die in the medical team's care. This is a situation where any treatment would only prolong the patient's pain. Any treatment they discuss is critical and has possible complications, and the medical team are responsible for the consequences. When, in line 544, Dr. Jaber suggests talking about the situation with the patient's family, he is diverting the responsibility of giving the treatment to the patient's family. In this way, if the patient's condition worsens and leads to death, the medical team might be less accountable for it.

6.1.4 Episode 4

The doctors are talking about a patient whom they will discharge and what will happen to him after the discharge, since he is not legally allowed to stay in the country.

191 Naji / فا hold ال: ال * خلينا نشوف ال result على الأقل تدينا الين الأسبوع الجاي (0.2)
/ *so* hold *the: * until we see the* result *it will give us time till next week(0.2)*
192 فا: المريض تاني * just: keep *
so: the patient again * just: keep *
193 Saad لانه he is not eligible there is no chance for him to take any *=
Because he is not eligible there is no chance for him to take any *=
194 Naji = do we need to keep him inside (0.3)
195 Saad I still sick بس هوا لو خرجناه لازم يعني he will not come back
I still *sick but this means if we discharge him that* he will not come back
196 Naji مو هوا he will not come back whatever[you do]=
Well he will not come back whatever [you do]=
197 Saad [{laughs}]
198 Saad = طيب ahh (0.2) هوا بس محتاج انه secure for him one month * one :ال
= *ok* ahh (0.2) *he just needs to* secure for him one month * one *the*:
199 medication supply already informed him to: to <u>leave</u> the country and go
200 somewhere else

Dr. Saad says that when this patient is discharged, he will not be able to get re-admitted to their hospital. So, in line 196, Dr. Naji uses sarcasm to tell Dr. Saad the patient will never be back regardless of any of their efforts, implying that the patient will eventually die. Dr. Saad laughs in line 197 in response to Dr. Naji's insinuation. This example shows how doctors resort to humour to cope with difficult situations (Attardo, 2020; Kosester, 2010; Plester, 2009). Their difficulties relate to working with patients in critical conditions that might end in death. Humour gives doctors the opportunity to find relief while dealing with such difficult encounters. While this is the only example where humour is not presented through code-switching, code-switching is still part of the beginning of the sentence in line 196 when Dr. Naji uses the discourse marker "well" to justify his thoughts.

6.1.5 Episode 5

The doctors are talking about the results of a patient's test. The results showed that the patient was in good condition, which was not the case. The doctors found out that the patient's test label was switched by mistake with another one.

956 Noor = ال كان النهاردا هواcount صح غلط دا ?=
= *today the blood* count *was wrong right?* =

957 Nader = اه ال CBC totally wrong <u>totally</u> wrong=
= *yes the* CBC totally wrong <u>totally</u> wrong=

958 Noor = سبعه كان سبعه كان [فيش ما و metrobenia يعني سليم الله ماشاء كان]{laughs}
= it was seven [*and he did not have* meropenia so he was in excellent
health condition praise Allah] {laughs}

959 Nader {laughs}

960 Saad [ah و * الدكتور كلمت] ال هذا قال label
[ah I *called doctor * and*] *he told me it's the* label

961 Nader ال label اتغير =
the label was changed =

962 Saad = ال هذي ايوا CBC ثاني مريض حقت =
= *yes it was another patent's* CBC =

963 Nader: = بالزبط =
= exactly=

In line 958, Dr. Noor sarcastically comments that the patient, despite having a high fever, is healthy according to the test results. Her laughter shows her annoyance about the situation, since there was a clear contradiction between the test results and the patient's condition. This is yet another example of how doctors resort to humour as they cope with negative events (Attardo, 2020; Kosester, 2010; Plester, 2009). In this situation, the negative event was quite serious because switching labels in medical tests lead to dangerous outcomes if not caught on early.

The next episodes for analysis (16–17) are part of the sixth meeting. In this meeting, nine doctors were present, but only seven were participants: assistant consultants Dr. Noor, Dr. Saber, Dr. Mohsen, Dr. Nader, a non-participating female assistant consultant, along with a non-participating male assistant consultant. The consultants at the meeting were Dr. Saad, Dr. Naji and Dr. Jaber. This meeting takes place in the male consultant room.

6.1.6 Episode 6

The doctors are talking about the diagnoses of a critical patient who was transferred to the hospital as a special case: a VIP. The patient was transferred to them by royal orders, with specific instructions to discuss her case in the haematology department. The consultants want an explanation as to why the patient is having thrombocytopenia[1]. The doctors are wondering about the working diagnoses so that they can pick up from them and continue with the diagnoses.

540	Naj:	= ايش ال issue? ايش ال diagnosis ال pneumonia قبل شهر دحين ايش ال
		= *what is the* issue? *What is the* diagnosis pneumonia *was the diagnosis last month now what is the*
541		diagnosis working diagnosis
542	Saber	مافي diagnosis/
		there is no diagnosis/
543	Mohsen	/ يعني admitted سنه * /
		/ *so* admitted *a year* */
544	Saber	/ هيا admitted بس أمس أمس بس =
		/ *she was only* admitted *yesterday* =
545	Naji	= ممتاز بس طالما admitted فيه provisional diagnoses =

[1] Thrombocytopenia is an abnormal drop in the number of blood cells involved in forming blood clots.

= *great but since she was* admitted *than there is a provisional* diagnosis=

546 A doctor = ال working diagnose */

= *the* working diagnose */

547 Saber / * هما كان vip {laughs}

/ *they were* * vip {laughs}

548 A doctor *=

549 Jaber = و افهم انتا اللي انتا عايزه {laughs} =

= *and you decide what you want to understand from this statement {laughs}* =

560 Naji = لا هوا انا أقول لك يعني احنا في كندا كان عندنا لما ما نعرف شيء اسمه

= *I want to say that in Canada when we did not know the diagnoses we call it*

561 gen * general deterioration =

562 Jaber = ah =

563 Naji = gen * ما نعرف ايش ال diagnosis gen *=

= gen * *when we don't know the* diagnosis gen *=

564 A doctor = gen *=

565 Naji = فهنا يعني ايش ال diagnosis why the liver why liver * so high * direct

= *here what is the* diagnosis why the liver why liver * so high * direct

566 we have they have * mass * ? سووا ال imaging? =

we have they have *mass*? *did they do the* imaging? =

567 Mohsen = شافوها ال gastro و طالبين MRCT

= gastro *saw her and they requested the* MRCT

568 Saber هما طالبين ال MRCT *=

they are requesting the MRCT *=

569 Naji = قبل ال MRCT اعمل CT scan عايدي =

= *do the <u>usual</u>* CT *scan before doing the* MRCT =

570 A doctor = هيا مش داخله جوا ال ultrasound * هتدخل جوا الجهاز =

= *she is not going inside the* ultrasound * *how will she go inside the machine* =

571 Saber = عشان ال keratin /[*]

= *because the* keratin / [*]

572 Naji / [*] عايدي حيدخل جوا الجهاز * ? ال ultrasound(0.3)

/[*] *is it ok for the * to go inside the machine? the*

ultrasound (0.3)

573 A doctor the patient

574 Jaber الحمدلله الدكاترة ما بتدخلش في thrombocytopenia {doctors laugh}
thank Allah that doctors do not have thrombocytopenia {doctors laugh}
575 Mohsen thrombocytopenia * infection chronic liver disease /

In this example, laughter is evident three times. The doctors use laughter and humour as they deal with the lack of information about the patient. They are already pressured to receive the patient and reach a treatment plan while lacking information on the patient's history. As Dr. Naji wants to know what the diagnoses were originally, Dr. Saber mocks that the information emphasised is that she is a VIP patient, and he laughs in line 547. His laughter expresses his discomfort, as he cannot provide the information while knowing that everyone is pressured to reach a treatment plan. Even Dr. Jaber joins in (in line 549) and makes fun of the VIP information. He tells the doctors to work their way around this information, and he laughs. Dr. Jaber laughs to express his annoyance and discomfort, and, at the same time, he is under the same pressure as the others to work based on the limited information they have. The doctors resort to humour to relieve their frustration and to release some of their tension (Plester, 2009). They have to accept this new patient and deal with missing information in her history as fast as they can.

At another point in the meeting, the doctors wonder if the patient can have an ultrasound considering she has a metallic heart valve. So, Dr. Naji asks one of the doctors about it. The doctor is absent minded at this point and wonders if they are talking about the patient. Dr. Jaber jokes that it is a good thing that doctors do not get thrombocytopenia, and everyone laughs in line 574. His comment insinuate that it is a good thing that it is not the doctors who are the patients in this case considering how this doctor is not paying attention during this very important case. They are talking about the patient yet the doctors who is asked wondered if they are asking him about the patient. He is scolding the doctor for losing his focus because their department has been asked specifically to work on this patient's case, and they all doctors to be present while discussing this difficult case. Through humour, he indirectly scolds the doctor for not paying attention and uses humour at the same time to lighten the difficult discussion they are having. His criticism is diffused by his use of humour (Koester, 2010), and he still maintains his good relations with others (Taylor & Bain, 2003). The doctors' shared laughter serves to improve the group mood, make it easier to cope with difficult situations (Plester, 2009) and form a social bonding function for them (Trouvain & Truong, 2017), since they are all under the same pressure to reach a diagnosis. This last example also shows a connection between the use of humour and code-switching to Arabic.

This helps build the rapport of the staff members and reduce the awkwardness of the situation when the consultant criticises other staff members (Brunner & Diemer, 2018).

6.2. Theme two: Using humour to mitigate face- threat

In this category, doctors resort to humour to overcome difficulties in interaction (Episode 7 and 8) and to deliver warnings, orders and criticism (Episodes 9,10,11,12 and 13).

6.2.1 Episode 7

The doctors make a final decision about what to do with this COVID patient, and assistant consultant Dr. Saber, who is responsible for monitoring the patient, confirms with the doctors the steps required for moving the patient to the COVID ward.

927 Saber so shift her to the Covid floor
938 Mohsen yes
939 Saber contact the ID and: continue chemo=
940 Mohsen = you know the: the *=
941 Saber = I know the process but {laughs} =
942 Mohsen = you know the *
943 {doctor talk again}
944 Jaber ايه ال leukaemia كلها بيقلبوا Covid *
What is going on all the leukaemia *patients are getting* Covid *

After Dr. Saber receives confirmation from Dr. Mohsen to transfer the patient to the COVID floor, he starts listing the procedures for this transfer. Dr. Mohsen says that there is no need to list everything, as he points out in line 940 that Dr. Saber is aware of how to do the procedures. While Dr. Saber replies by confirming his knowledge of the procedures, he says “but” in line 941 and laughs. His laughter indicates his rejection of Dr. Mohsen’s indirect request, and it softens his rejection as Dr. Saber tries to continue and ensure in detail what to do. Nevertheless, Dr. Mohsen, who is higher in the ranking, insists on ending this part of the conversation by repeating his acknowledgment that Dr. Saber is aware of what to do. Even though Dr. Mohsen’s title is assistance consultant, he is higher in ranking. There were instances during the meetings when the consultants seek his medical advice while addressing him as Dr. Dr. Saber’s use of laughter aligns with Zayts and Schnurr’s (2011) finding that doctors use laughter to overcome difficulties in conversation. While for Zayts and Schnurr (2011), this involved doctors responding

with laughter to their patients who did not want to listen to medical advice, in this situation, the laughter is between two medical professionals. Dr. Saber also laughs off an objection, as he wants to continue talking about the steps needed to transfer the patient to the COVID ward.

6.2.2 Episode 8

Here the doctors are discussing what they need to do with a critical patient who is developing other concerning symptoms. The consultant, Dr. Naji, offers a plan for the best way to treat the patient, and he thinks that they can treat the patient at their department rather than send him to the Intensive Care Unit (ICU). However, he asks the other consultants for their opinion.

279 Naji so ah (0.1) the issue in * this both veins are still draining he had only
280 the left side now he has the right side * we cannot * he's bedbound
281 he does not he is not cooperative he does not even sit on the bed and
282 he has a lot of secretions/
283 Nader /yah code status /
284 Naji / he will: ah end up developing
285 pneumonia and we have max_ maximize his: CLL therapy which has
286 respond in the form of some lymph node shrinking now he definitely
287 has something else we did a biopsy two days ago CT guided ultrasound
288 guided ah * biopsy but I think he should be no code so: we do
289 maximum what we can on the floor but this patient should not go to ICU
290 Nader mm=
291 Naji = amm he's just ah would be * I I don't know what the other
292 consultants think=
293 Nader = * doctor Saad
294 Saad اسمعوا رأي محايد {Jaber and another doctor laugh}
Listen to an impartial opinion {Jaber and another doctor laugh}
295 Jaber والله: انا I think يعني: /[*]
I swear to Allah: I I think *this means:* / [*]
296 Noor / [* هوا ال] * not responding even if total * ال
/[*Because the* *] * not responding even if total **the*

Dr. Naji asks the other consultants for their opinions to see if they agree with him or have different suggestions. Dr. Nader asks Dr. Saad for his input, which he does not give in line 292.

Dr. Saad tells the doctors to seek another opinion that is "impartial". This defers the responsibility of making a decision about this patient to the only consultant left, Dr. Jaber. Dr. Nader and Dr. Jaber laugh in response. Dr. Nader laughs to minimise the awkwardness of not receiving an answer from Dr. Saad, who is the head of the department. As for Dr. Jaber, he gives a stressed-sounding laugh, as he realises that Dr. Saad has deferred the responsibility of deciding on the treatment to him. Dr. Saad uses humour to avoid making the final decision and pushing for another opinion from the other doctor, Dr. Jaber, who is older and has more experience than Dr. Naji. This also indicates that Dr. Saad relies more on the experience of Dr. Jaber to confirm if the plan suggested by Dr. Naji is the best treatment or if there is another option that they could seek. Watson and Drew (2017) argued that humour and laughter influence the decision-making process, and this situation reflects such findings. Dr. Saad also resorts to humour to decrease his power status as the head of the department and lead consultant, as he invites his colleagues to exert their expertise in the decision-making process while maintaining good relations with them (Koster, 2010).

Dr. Jaber laughs while dealing with this face-threatening situation and starts thinking of a solution. Here, humour helps to diffuse the tension of disagreeing with and challenging the authority of a colleague (consultant) (Koester, 2010) while the doctors maintain a good rapport with each other when communicating face-threatening messages (Attardo, 2020; Taylor & Bain, 2003; Vine, 2020). Dr. Saad uses Arabic when he deflects from answering. His use of humour and code-switching indicates that he is trying to maintain rapport with his colleagues. Brunner et al. (2017) reported that as humour and code-switching work together, this reduces the tension of the situation, especially if accompanied by laugher, which was the case with Dr. Jaber' response.

6.2.4 Episode 9

The doctors are still discussing the same patient. They are concerned that the patient is possibly having a second malignant diagnosis, and they await test results. At the same time, they are thinking ahead about possible treatments if the patient's diagnosis is malignant and at an advanced stage. The assistant consultants (Dr. Noor and Dr. Nader) argue that the patient's case is too advanced, and Dr. Nader suggests putting the patient on DNR (do not resuscitate) status. However, the consultants Dr. Naji and Dr. Jaber have been urging the assistant consultants to consider options for treatment, even if this includes minimum treatment. This is serious case that ultimately shows the responsibility of doctors and their decisions when it comes to life and death.

294 Noor / (* هوا ال) * not responding even if total *** ال bilateral *mass progressed
/ [*because the* *] * not responding even if total ****the* bilateral *mass progressed
295 فيه كمان another [mass increased right adrenal mass] /[*]
there is also another [mass increased right adrenal mass] /[*]
296 Nader [* medication in the chest]
297 [consultants are talking with each other at the same time]
298 Naji / [what] I am
299 suggesting to do everything we <u>can</u> chemo whatever on the floor=
300 Jaber = يعني هوا حيزيد chemo=
= *so he will increase* chemo=
301 Nader = mm=
302 Jaber = two cycles /[**]
303 Noor /[هوا خاد] RCTP و still on * on high doses four hundred and
/[*he took*] RCTP *and* still on * on high doses four hundred and
304 twenty / [*]
305 Nader / [**] put in <u>DNR</u> but <u>if</u> confirmed second malignancy palliative=
306 Jaber = لا لا مافيش اه لو طلع malignant =
= *no no it's not* <u>*oh*</u> *yes if it became* malignant=
307 Naji = second malignancy palliative * =
308 Nader = but if just DNR /
309 Jaber / لو و لك أقول عايز :بس second malignancy
/But I want to tell you even if the second *biopsy shows* malignancy
310 ما يتعالجش الا لو حاجة بسيطة
its only treated if it's a minor spread=
311 Noor [مش بسيطة عنده دا static right adrenal gland] ahh
=*[It's not minor he has* static right adrenal gland] ahh
312 [two doctor are talking]
313 Jaber لو lung cancer يعني =
then this is cancer=
314 Noor = ايوه =
Yes
315 Jaber = ما ممكن يدوله /[*]

= *maybe they would give him* / [*]

316 Nader / [*] لو كان فيه * mutation **=

/ [*] *if there is* * mutation **=

317 Jaber = نعم حيعملوا له ** [بس ممكن *]

= *Yes they will do* ** [*but maybe* *]

318 Noor [***] [**]

319 Nader [**]

320 Jaber ما تستعجلوش {laughs} دا قرار اعدام [ما تستعجلوش] ما تستعجلوش يا جماعة

Don't rush the decision people [don't rush it] this is an execution

{laughs} *don't rush it*

321 Nader [ايوه]

[*yes*]

In this episode, the consultants give treatment plans in favour of helping the patient, regardless of the outcome of the tests. Dr. Naji suggests in lines 298–299 to do whatever they can, and in line 314 Dr. Jaber, who has 33 years of experience, is still considering that the patient could get treated even if the upcoming results show malignancy. This shows that doctors really desire to extend the life of the critical patient. However, Dr. Noor and Dr. Nader do not agree with this. As Dr. Nader and Dr. Noor continue their conversation, some of the lines are not clear. Dr. Jaber responds to the assistant consultants by warning them to spend time considering options and must not rush into a decision because it could be fatal for the patient. In line 319, he jokes that indeed the final decision they make for this patient might turn out to be an execution.

Dr. Jaber employs dark humour to mitigate his criticism of the assistant consultants' rush to reach a final decision. He uses humour to soften his criticism of their haste to give up on the patient's case. However, this is not a laughable situation, which makes his laugh a form of nervous laughter, since the assistant consultants are rushing to make a final decision that might include a DNR. Such a decision could deprive the patient of a chance of treatment even for a short period of time. Dr. Jaber's laughter is associated with his disbelief that the assistant consultants are not paying attention to his attempts to make them reconsider giving the patient a chance.

Dr. Jaber uses laughter to reduce the awkwardness of the situation and soften his criticism (Brunner & Diemer, 2018; Plester, 2009) as he repeats several times in Arabic that the assistant consultants need to take more time. His laughter also decreases the tone of his criticism by softening it to make it easier for others to receive (Petraki & Ramayanti, 2018). In this episode, the use of Arabic associated with humour and laughter in code-switching mitigates the tension of

the situation (Brunner et al., 2017) but are also important resources to remind doctors of their professional responsibilities and that they must take their time when it comes to such serious decision. This is somewhat in contrast to Episode 3 where making decision fast was necessary

6.2.5 Episode 10

The doctors are discussing a relapsed lymphoma patient who was admitted with a COVID infection. The patient is doing better but still has some issues that require tests. The doctors have requested consultation from an ICU consultant, but the request is still pending. The doctors have contacted the ICU department many times without getting a response. They are trying to figure out when the patient started having issues.

309 Noor /ما هوا انا كان معايا * /

*/he was with me */*

310 Jaber /

هيا دخلته في ال ER[5] =

/ It was the reason he was admitted to the ER=

311 Noor = قبله symptomatic لا لا هيا كانت =

= No the case was symptomatic *prior to the ER admission*

312 Jaber = mm?=

313 Noor = قبل على طول

= it was *symptomatic right before coming to the ER*

314 Jaber /اه يعني *

*I see so */*

315 Noor / * symptomatic قبل على طول {laughs}

/ * symptomatic *right before* {laughs}

316 Jaber = {laughs} ما نرميش بلاوينا على العيانين =

= {laughs} *we should not blame the patients for our big mistakes*=

317 Noor = هوا ممكن بس يعني /

= maybe but I think/

318 Naji / عشان كدا ما * ال bone marrow المريض راح ال ICU

/ this is why the bone marrow *did not * the patient went to the* ICU

319 = ما اتحول bone marrow و لسه ال

[5] Emergency Room.

and the bone marrow *was still not transferred=*

In this example, the consultant Dr. Jaber wants to find out the reason why the patient's condition has started to be unstable. He guesses that the reason that the patient was admitted to the ER is related to the patient's current condition, and if it had not been treated, this might have caused the complications. However, in lines 311, 313 and 315, Dr. Noor keeps insisting that the patient was symptomatic prior to coming to the hospital. Although part of the relevant line is not clear, Dr. Noor clearly mentions again that the patient was not doing well before coming to the hospital and laughs. Her laugh is an example a nervous laughter, as she has tried many times to confirm that the patient was not doing well before their intervention. Laughter can express a person's nervousness, especially when encountering a face-threatening action (Trouvain & Truong, 2017). Dr. Noor has expressed in lines 311, 313 and 315 that the patient was in a bad condition before being treated. Yet this did not stop Dr. Jaber from expressing his concern that they could have missed something when the patient was admitted. While part of Dr. Noor's conversation in line 315 is not clear, it does still contain her insistence that the patient was symptomatic prior to coming to them. Yet this does not convince Dr. Jaber, who rejects Dr. Noor's claim by laughing and insists that they need to take accountability for the patient's condition. In line 316, he teases Dr. Noor by saying that "we should not blame the patients for our big mistakes". Thus, he employs humour to soften his criticism of the way this patient is being treated and communicate an important professional message that the responsibility lies with the medics not with the patients.

He also uses the inclusive pronoun "we" to make all the meeting participants share the responsibility for the patient. Dr. Jaber laughs to show his disapproval and continues to give his opinion on the situation (Zayts & Schnurr, 2011). Dr. Jaber uses a combination of teasing and self-deprecating humour through making the entire group look as if they are making mistakes. This reduces the intensity of the reprimand and helps to maintain social cohesion (Vine, 2020), which is done by spreading the accountability of the "big mistakes" for all the members rather than Dr. Noor specifically. Dr. Jaber's use of Arabic to express his humorous options also helps to reduce the difficulty of the situation: namely, criticising Dr. Noor while sustaining amicable rapport (Brunner & Diemer, 2018). His use of "we" instead of "you" softens his criticism and makes it easier to be accepted by Dr. Noor because it indicates that they work collaboratively as a team, which means that when mistakes are made there are not an individual's action only. The use of humour and mention of collective responsibility also downgrades the tone of criticism to make it easier for others to accept being reprimanded (Petraki & Ramayanti, 2018). Dr. Jaber

wants the doctors to acknowledge their responsibility of caring for the patient, even if they have issues in communicating with other departments. In response, Dr. Noor acknowledges in line 317 that he might be right. Her response is delivered in a low voice which might relate that she is forced to agree with her superior Dr. Jaber but still has doubts, but she did not voice them, and the conversation moved on.

6.2.6 Episode 11

Dr. Saber is presenting one of his patients. The patient has been there for a while, and everyone is familiar with his history. He starts his report with the patient's history, and Dr. Naji wants him to skip the history.

284 Naji next =
285 Saber = * mistake I forget to present one of my patients معليش =
= * mistake I forgot to present on of my patients *sorry*=
286 Naji = ah sure=
287 Saber = {laugh} one oh six patient Talat ahh Hamdi he is a case of: */
288 Naji / والله
/ *I swear to Allah*
289 = فيه * new عارفين بس قول لنا ال:
= *with him* * new *we know just tell us the:*
290 Saber = خلاص أبشر {laughs}=
= *sure* {laughs}=
291 Naji = خلاص يا جماعه طلعت صار له تلاته شهور
= *come on people remember that Talat has been here for three months*
292 Saber {Saber and another doctor laugh} today day twenty seven of the
293 second * he has: ah the right ….

In this example, Dr. Saber uses laughter in line 287 to express his embarrassment and reduce his awkwardness, as he had forgotten to present a case of one of his patients. As he is reporting the case by starting with the patient's history, in line 288 Dr. Naji interrupts him and asks him to skip the patient's history, as they are all familiar with the patient. Dr. Naji promises in an exaggerated way that they are familiar with the case history and wants only the new updates, which is because they need to move on with the meeting and dedicate time to the most relevant points. Dr. Naji is the consultant, and he resorts to sarcasm to mitigate his criticism, which poses

a face-threatening act while he asserts his authority (Patraki & Ramayanti, 2018). His use of humour also helps him enact a transactional act with his subordinate (Schnurr, 2009) while maintaining good relations with Dr. Saber (Taylor & Bain, 2003). He wants Dr. Saber to deliver the information faster and present only the necessary updates. Dr. Saber laughs in line 290 to express his embarrassment and acceptance of the consultant's order. Yet Dr. Naji insists on pointing out that the patient has been around for three months, explaining why he did not want the meeting time to be wasted on the patient's history. This makes Dr. Saber and another doctor laugh in response. The laughter here from Dr. Saber is a way to relieve his embarrassment and move on to continue reporting the development in the patient's case.

6.2.7 Episode 12

Dr. Nader is telling the doctors that he will call Dr.Mai for a consultation on a patient's test results. Dr.Mai is someone they consult with a lot. Dr. Nader wants to consult with her even though he has a plan based on test results they have already gotten and other tests they are waiting for.

302 Nader = so just we follow the urine report and follow results with bone
303 marrow if we have * I think maybe: I think I will call دكتوره Hala right
marrow if we have * I think maybe: I think I will call *doctor* Hala right
304 now to check if her *report but I think the issue will still/
305 Naji / lets make it
306 official نحنا خلاص =
official *from our side then*=
307 A doctor = *=
308 Naji = عشان كدا تع تعصبوا يعصبوا هما
= this is why her and the others get angry
309 A doctor * و يتخانقوا معانا
and they have fights with us *
310 {Doctors laugh}
311 Naji = ايوا و بعدين بدري: احسان
= *I agree and its late: Ehsan*
312 [several doctors talk in the same time]
313 Nader = * دكتوره Hala maybe after <u>four</u> they will call you yes you have a result for

= * *doctor* Hala maybe after <u>four</u> they will call you yes you have a result for

314 you/

315 A doctor / لا لا لا it's not a new case =

/ *no don't* it's not a new case =

316 Nader = اه * last patient in room one…

= *Ok* * last patient in room….

When Dr. Nader expresses that he will call Dr.Hala to discuss the test results with her, Dr. Naji interrupts him and tells him that since he has an idea of the diagnosis and treatment based on test results, the call is not necessary. Dr. Naji wants him to make the diagnosis and not waste other doctors' time, as they need these doctors for further consultation. In line 307, Dr. Naji expresses that such calls are the reason why the other department gets upset at them, and in line 308 another doctor responds by joking that this is why they fight with them. The doctors laugh in response to this statement. Their laughter expresses their agreement, and it is a collective and corrective form of laughter (Butler, 2015). Such form of laughter accrues to rectify the behaviours of the person being laughed at (Dr. Nader in this case). The doctors agree that making such calls when they are not critical would badger the other department and add to their workload. They also constantly ask Dr.Hala for consultations, which means that it they need to keep good relations with her and other members in the department, being able to contact them is an absolute priority.

Also, in line 310 Dr. Naji uses irony to express that it is already too late to ask Dr.Hala for a consultation. Dr. Naji resorts to humour to criticise Dr. Nader and express his disapproval of his actions, which is a function of humour used by people in higher positions to express their criticism (Koester, 2010; Norrick, 2010). However, Dr. Nader still insists on making the call, and at that point (in line 314) his colleague asks him directly not to do so, since it is not a new case. So, in line 315 Dr. Nader finally agrees not to make the call.

Dr. Naji uses humour and irony to tell Dr. Nader indirectly that his actions are not serving the best interests of the department. However, Dr. Naji does not express this directly, perhaps because he had just joined the hospital in the previous month. Rather than scold directly, he uses humour to maintain good relations. Yet Dr. Nader ignores the indirect request that is engulfed in humour and rejects it. Indeed, he follows Dr. Naji's recommendation only after his colleague directly asks him not to make the call.

6.2.8 Episode 13

The doctors need to see the latest report about a patient so that they can discuss the diagnosis and treatment. The results had been sent to Dr. Nader from the biocentre, but the same person who sent the results had not yet uploaded them on the hospital system. So, Dr. Noor tells Dr. Nader to share the results with them now via the WhatsApp group. He shared it first with the entire oncology team WhatsApp group.

779 Nader = ah بص يعني انا بعتالكو على ال haematology oncology group =
= ah *you see I have sent it to the* haematology oncology group =

780 Noor = ابعته ال haematology oncology ليه ? انتا حتبعته للناس كلهم [***]=
= *why you send it to the* haematology oncology? *Are you sending it to everyone* [***] =

781 Nader [هما * عشان كلكو*]
[*it's * because your all **]

782 Mohsen [* WhatsApp]

783 Noor = عشان يعرفوا {laughs}
= *so that they know* {laughs}

784 [doctors are talking at the same time]

785 A doctor [الناس معاها ** WhatsApp]
[** *people have* WhatsApp]

786 Saad [عشان نوريهم] عشان نوريهم انه قاعدين نشتغل
[so *we can show them*] *that we are working*

787 Noor [***] {laughing}

788 Saber Whats whats whats =

789 Nader = عملت لكو Whats اه =
= *yes I sent to your* Whats =

790 Noor = ابعتهالنا واتس على ال haematology بتعانا ايوا
= *yes send it to our* haematology *WhatsApp group*

791 Nader = حاضر
= *ok*

792 [doctors laughing about this and commenting with each other]

793 Noor * {while laughing}

Dr. Nader informs the doctors in the meeting that he shared the report in the haematology oncology Whatsapp group. Dr. Noor protests and asks that he send it to their own group only and not to everyone. She even teases him in line 780 by asking him if wants to send it to all the hospital. She criticises him indirectly in line 780 when she asks him, "Are you sending it to everyone?" She laughs in line 783 as she asks Dr. Nader if he wants other department members to know about their patient's case. She uses laughter to soften her criticism of his action.

Dr. Saad (consultant/head of the haematology department) joins in teasing Dr. Nader by giving an explanation of why Dr. Nader shared a patient's results with the entire oncology WhatsApp group. In line 786, Dr. Saad says that when doctors in the bigger WhatsApp group see the report, they will certainly see that haematology doctors are actually doing their jobs. Dr. Nader eventually shares the report with his group, as all the doctors in the group tell him to do so.

This is not the first time Dr. Nader has been reprimanded for his actions (not medical actions but ones related to administration). The doctors use humour to criticise his action and laugh about it together. Teasing is used to reprimand people for their actions while maintaining good relations with them (Vine, 2020). Their laughter at Dr. Nader is what Butler (2015) identified as "collective and corrective" laughter, since they are initiating it to correct Dr. Nader's actions. In this example, humour is expressed in Arabic when Dr. Nader is criticised. As Brunner and Diemer (2018) found, expressing humour can reduce the awkwardness of a situation while maintain the rapport of the group.

6.3. Theme 3: Building and maintaining solidarity

Humour is used in this category by the doctors as a form of building and sustaining good colleague atmosphere in the following three Episodes.

6.3.1 Episode 14

Dr. Nader presents another critical leukaemia patient and reports the latest treatment for the patient without mentioning what they need to do next or asking what needs to be done next with the patient. When the doctors present cases in a meeting, two scenarios take place. The doctors either say that they will continue their treatment and follow up with the patient's condition as long as no issues arise, or they ask the consultant about what to do next. When Dr. Nader presents the case, he mentions that they will follow up the patient's condition. Although he mentions an issue with the patient that has to be monitored, he does not report what they need to do next.

457 Nader = drain ahh so: actually: patient just he is follow the drain no other ال

= drain ahh so: actually: patient just he is follow the drain no other *the*

458 issues from him just follow:/

459 Naji / what's the plan=

460 Nader = the plan (0.1)

461 {everyone laughs loudly}

462 Naji قلت له *what's the plan قال ها كدا =

* *I asked him* what's the plan and *he replied huh like this* =

463 Noor = هوا كل الحالات [اللي بنترسل **]

= *all the cases(that are referred **)*

464 Naji [ولله سعد انا احسدك تخلي هادي تسجل بالعربي [كل الحالات اللي بنترسل

[*all the referred cases*] *Saad I swear I envy you** you are letting her record in Arabic*

465 Saad لا لا حنا: حنا قلنا =

no we: told you =

466 Naji = موقف لا تحسد عليه يعني I reviewed the topic I read ال papers ال

= *I don't want to be in your position* I reviewed the topic I read *the* papers *the*

467 guidelines عليها في الفين و ثمتنطعش من الفين و ثمنطعش =

guidelines *on it from two thousand and eighteen*=

In line 459, Dr. Naji asks Dr. Nader about what to do next with the patient. Dr. Nader repeats "the plan" and pauses, showing that he does not know what to do next. Everyone in the meeting laughs loudly. Their laugh is an uncomfortable and stressed laugh because none of them offer suggestions about what to do next. Doctors in these meetings typically participate and offer possible treatment plans, but this has not happened at this moment suggesting that what is expected of them has not been performed thus possibly undermining their status as professional medics. In this example, everyone shares laughter; according to Pleaser (2009), group laughter improves people's moods and reflects positively on people's (doctors in this case) ability to cope with the stress of the situation they are facing. The doctor's laughter can be perceived as a sign of their social bonding as team members (Trouvain & Truong, 2017), since they are all part of the same team that contributes to the discussions related to the final decision-making process.

In line 462, Dr. Naji repeats to the consultants sitting next to him that he asked Dr. Nader about what to do, and he repeats Dr. Nader's response. The teasing way that Dr. Naji does this

with Dr. Nader represents how the consultant is getting more familiar with his colleagues. Sharing humour with colleagues, especially during discussions involving sensitive topics, contributes to building solidarity among team members and defuses the tension that could arise during such discussions while maintaining good relations with others (Vine, 2020). This is demonstrated in line 463 as Dr. Noor comments on how all the transferred cases are critical and not easy to treat. This shows her understanding of how everyone in the meeting is having a hard time in reaching treatment decisions and also shows her support to her colleague Dr. Nader. She is defending the team's ability to make decisions. In line 464, Dr. Naji repeats her statement that the cases are difficult, thereby showing his agreement with Dr. Noor.

An interesting point in this example is when Dr. Naji then tells Dr. Saad (the principal investigator and head of the haematology department, who agreed to allow me into his department to collect my data) that he does not envy him the responsibility of letting "her" (me, the researcher) attend and record the meeting while discussing these difficult cases. Even though Dr. Naji is laughing in this conversation, he is also expressing his concern for maintaining the confidentiality of the information while holding Dr. Saad accountable in case of negative outcomes. His comments and use of laughter as a tool to cope with uncertainty could also express his concern about how he and his colleagues are represented as professional, competent doctors because in this meeting, they are having difficulties reaching treatment decisions in several cases, which could be considered especially by outsiders as being not competent enough or having diminished expertise. Dr. Naji relies on humour to express this potentially face-threatening message to Dr. Saad; humour softens the message while still preserving the good relations between the two doctors (Attardo, 2020; Koester, 2010; Taylor & Bain, 2003). Dr. Saad reassures him about the confidentiality concern, but Dr. Naji continues to repeat in line 466 that he does not envy Dr. Saad. He tells Dr. Saad that he is glad he does not hold the responsibility for maintaining the confidentiality of the meeting's information. Dr. Naji uses humour here to share his thoughts and concern while at the same time breaking the tension of the situation prior to going back to thinking about how they can address the patient's situation. Dr. Naji later moves on to sharing the latest research on how to treat patients in similar conditions. Holmes and Marra (2002) reported that humour is used to interject into a difficult conversation, mostly after having the difficult discussion. However, in this example, the interjection came in the middle of the conversation after the report about the patient's condition is heard, and this is followed by reverting to seriously discussing research related to the patient's condition. This example is similar to the other example in that it shows evidence that code-switching is associated with the use of humour. Indeed,

laughter came after the code-switching, which Brunner and Diemer (2018) found can help to create rapport while reducing situational awkwardness.

I would like to note that Dr. Naji and all the other members knew and understood that they could withdraw from the study at any point. Dr. Naji used humour to show his concern about being recorded in this meeting without requesting for it to stop or asking me to leave. He even made a comment once about how calm Saad is about being recorded. His concerns could be due to the sensitivity of the discussion, and my position as an outsider that he does not know well. Exposing such information could be a concern as well as how they are represented as professionals. This department gets referrals from all over Saudi Arabia due to their reputation as the best haematology medical staff, but in this meeting their medical expertise is tested, which can reflect negatively on their reputation if such information is exposed. Interestingly, he is the only one that showed concern, which could be due to his experience being significantly newer/fresher compared to the other consultants who have much more yearly experience over him.

6.3.2 Episode 15

This is a continuing discussion about the same patient. The doctors want to transfer the patient back to the hospital she came from because she can continue the treatment there while they give her the medications that are only dispensed through their hospital. The treatment of the patient does not depend on her staying in the current hospital. Thus, the doctors are trying to figure out how to transfer the patient.

572 Noor = اه ما انا قصدي ان احنا نبدأ لها ال */[*)]
= *Yes what I mean is that we start the * for her* */ [*]

573 Naji عشان كدا [ما انا ah] /
/ [ah *I*] *this is why*

574 rec_ ah suggestion * to hospital X to her primary physician and

575 megastorin can be given like an outpatient prescription every

576 month ولا =
month *would this work*=

877 Noor = حيقول لك chemotherapy [مش حيعدوها] *=
= [*they* will *not accept the transfer*] *he will use* chemotherapy *as an excuse* *=

578 Saad [*]

579 A doctor = * chemo *=

580 Mohsen = لما تجي حاله =

= *when we receive a case request for transfer* =

581 Saad = اذا عندهم حاله يبغونا ناخذها حنا نقول لهم خذوا هذي و جيبوا لنا =

= *If they have a case that they want to transfer to us we tell them to take this patient and give us their patient* =

582 Mohsen = بدل =

= *trade* =

583 Saad = {laughs} :هذي هذي ال trade=

= {laughs} this *is the:* trade=

584 { a doctor laughs}

585 Jaber = * حصل حصل في ال مدينة * قبل كدا * في مدينة * اسمها ايه دي دكتورة {laughs}

= *it happened in the past with doctor what's her name doctor * in city X* {laughs}

586 بعتوا لنا حالتين {laughs}

they ended up sending us two cases {laughs}=

587 Saad = * trading * this =

Here, the doctors are thinking about how to transfer the patient to another hospital. In line 578, Dr. Mohsen mentions taking advantage of the moment another hospital wants to transfer a patient to them by asking them to take in another patient to replace the one they want to transfer. Dr. Saad laughs in line 581 and calls this exchange a trade, saying that this is how they do a trade, and in line 582 another doctor laughs in response. The shared laughter creates a positive atmosphere (Trouvain & Truong, 2017). When, in lines 580 and 581, Dr. Saad and Dr. Mohsen call the transfer a trade, their joke implies that it is a business deal. They are comparing transfer procedures to business. They are implying that this "trade" is the smart solution for their problem, as their solution forces the other hospital to accept swapping patients even if they do not want another patient. Their humorous outlook as they try to figure out how to transfer the patient helps them deal with the stressful situation (Attardo, 2020). Dr. Saad's use of laughter and his code-switching to Arabic also enhance the rapport among his colleagues (Brunner & Diemer, 2018).

In line 582, Dr. Jaber takes the opportunity to tell a story about doing a similar trade. In his story, he mentions that they transferred one patient to the other hospital but ended up receiving two patients instead, and he laughs about this. He is using humour and laughter to caution the

other doctors to be aware of the results of such trades. Here, laughter continues the bonding among the colleagues (Trouvain & Truong, 2017), and sharing the funny anecdote makes Dr. Jaber express his warning to the doctors to be aware of the outcome of such trades. The use of laughter and humour enables Dr. Jaber to enact a transactional goal (Schnurr, 2009). In this way, he is warning them to be careful not to end up with a bigger load of patients.

It is interesting in this Episode that when humour was used as they talked as if they were businesspeople and not medics, it seemed that they had a more of a proper laugh contrary to their laughter in the previous examples in the first two categories. In the previous categories, their laughter while discussing medical matters is more of a nervous laughter. Yet, when they talk about managerial matters such as this transfer issue, it seems that their laughter is genuine positive laughter. This observation can be seen in the next Episode as well.

6.3.3 Episode 16

The doctors are waiting for an email that tells them the result of a test from another department. The meeting takes place on a Tuesday. In Saudi Arabia, the working week starts on Sunday.

177 Nader: ok الدكتوره هاله قالت ahh ردت ب email by the middle of this week

Ok *doctor* Hala ahh *replied via* email *that she will send the report* by the middle this week

178 قلت لها ما احنا النهاردا ال middle of this week =

I told her that we are already in the middle of this week =

179 Noor = ال middle خلاص =

= *It's already the* middle =

180 Nader = {laughs}=

181 Noor = لا هما عندهم الجمعة شغل فا [ممكن] يبقى ال middle دا يوم تاني =

= *well they work on Friday so* [*maybe*] *the* middle *for them is another day* =

182 Nader [بالزبط]

[*exactly*]

183 Nader = يبقى بكرا =

= *the middle will be tomorrow*=

184 Noor = {laughs} يبقى بكرا =

= {laughs} *the middle will be tomorrow*=

185 Nader = بكرا حتشوفي

= *tomorrow you will see*

186 Noor = بداية الأسبوع [دا] انه هما الاتنين =

for them Monday [*is*] *the beginning of the week* =

This example illustrates Norrick's (2010) notion that a group can build their solidarity and rapport as they poke fun at outsiders to their group. The doctors use humour to cope with the forced delay as they wait for the other department to send them the test results based on the timing of different weekdays. The doctors have been told that they will get their report by the middle of the week. Initially, Dr. Noor agrees with Dr. Nader that it is already the middle of the week. Dr. Nader's laughter in line 180 expresses his agreement with her. Hanks and Egbert (2022) report that when laughter accrues after statements, it demonstrates agreement with the flow of the conversation. Then, Dr. Noor gives the other department an excuse for their delay in sending the report, as she remembers that department in question works till Friday, unlike them. Dr. Nader tells her that for the other department, the middle of the week is the next day (Wednesday). Dr. Noor laughs in agreement and acceptance and acknowledges that the middle of the week would be a different day.

In this example, the doctors use laughter and humour to express their acceptance of a situation that is out of their hands. It is amusing for them that each department starts the week on a different day.

6.4 Summary

The previous examples show that humour and laughter were used by the doctors throughout their meetings. Two prominent features were evident in the data. First, humour was initiated mostly by the consultants, and they represent the top of the hierarchy in the meetings. This coincides with studies on humour in workplace that have shown the tendency of humour being used by group members with the highest power to mitigate their criticism or to express orders to other members (Holmes & Mara, 2002; Patraki & Ramayanti, 2018). Attrardo (2020) in particular concluded that in medical settings, humour is expressed by those in the highest level of hierarchy and power. Interestingly, the direction of who initiated humour towards whom indicated that the doctors were aware and respecting the asymmetry that is present in this context as seen in the diagram below.

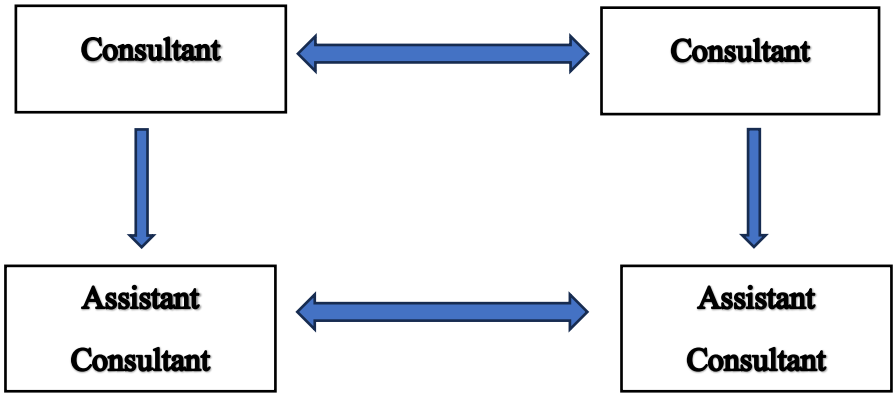


Figure 5 *Humour initiation direction*

The consultants initiated humour with other consultants and with the assistant consultants. The few moments that humour was initiated by the assistant consultants; it was towards colleagues at similar position as in Episode 13 when Dr. Noor teased Dr. Nader for sending the report to the wrong WhatsApp group. It was never directed towards the consultants. Even joining in teasing a colleague took place towards an assistant consultant and not a consultant. This reveals yet again how all the doctors were aware of the bounders in their interactions with each other that is attributed to hieratical position created by their institutional settings. The functions of using humour were the same regardless of who initiated it. However, between the consultants it could also be part of their power dance with each other as in Episode 8 in expressing their expert medical opinions. Dr. Saad deferred giving an option that makes a decision that supports Dr. Naji's decision. He put it in Dr. Jaber's hand to make the decision. This shows that when consultants disagree with each other, they might not explicitly say it especially that that was a case that was shadowed by uncertainty. The previous analysis chapter shows that Dr. Saad gave a final decision about the same patient based on the latest developments and he was supported by Dr. Naji. At the time of the interaction in this episode, disagreement due to uncertainty was present. This could be why Dr. Saad disagreement with his colleague was not explicitly expressed. The team need to function in harmony with each other while presenting their professional judgment for the decisions.

Another important finding of the current data is that humour and code-switching coexisted at the same time. As doctors used humour, it was in most instances expressed in Arabic. This is a metaphorical code-switching situation according to Gumprez (1982), since there was not any

change in the settings or participants that led them to code switch. It was rather their way of conveying special messages without compromising the rapport of the group. Based on the analysis of CS in the previous chapter, the use of emotions is expressed in Arabic. Humour in this chapter is connected with the emotions and feeling of the doctor. The good feelings and stressful feeling. This explains why the doctors used Arabic for humour.

Brunner and Diemer (2018) found that using code-switching with humour reduced the severity of the situations such as when criticising or reprimanding others while maintaining rapport. As for laughter in this context, it helped individuals express their embarrassment or annoyance, release tensions or show disapproval. Since they doctors expressed strong emotions as it was shadowed with stress and difficulties, they were having while needing to reach a decision, CS to Arabic became the option for them as CS research associates the expression of emotional status (Pavlinco, Dewalye). Using the first language delivers the emotional message with clarity and it is convenient since the first language has the biggest linguistic arsenal of the speakers.

The analysis revealed that doctors resorted to humour when facing bad news. This function of using humour is similar to Tate's (2020) study between the doctors and their patients. In this context its doctors who used humour in the presence of bad news that would complicate how they would make their decisions about treating patients. Humour has also helped the doctors mention sensitive topics such as the expected death of a patient or death being the only solution. In this study the doctors still did not explicitly say the words 'death'. They only laughed while inferring it. This shows that even as they laughed while inferring to death, they were not comfortable knowing that it is an invadable outcome for the patients. This can be attributed to their professional medical image as they know that their medical experience and resources still cannot save the patients, which is not the desired healthcare outcome. The doctors are human, and this can also explain why while they were aware that the patients will pass away, they have sympathy towards human life. While dealing with bad news, humour had been integral in helping the doctors express their emotion which were mostly negative. Their use of humour showed feelings of stress, worry, dismay and discomfort. The doctors needed to find solutions even in the presence of uncertainty. This pressure was expressed as the consultants joked with each other using dark humorous setarious and sarcasm.

Another use of humour by the consultants was to mitigate face-threats. The consultants in this setting had the upper hand in telling the doctors what to do and most importantly what not to do. The analysis from the previous chapter has shown that the assistant consultants were accepting this guidance. Even as the consultants were aware that they had more power, they resorted to

humour when they needed to criticize the assistant consultants' medical judgment, warn them and give orders. This use of humour makes it less threatening and hurtful to hear the criticism and ensure the assistant consultants would cooperate easier. The doctors work as a team and maiming collegiality between them is important. Interestingly, the consultants' use of humour reveal that they care about maintaining good relations with all the doctors despite their hierarchal position, which is critical in this high-risk meeting.

This relates to the next finding in which humour was used to foster and maintain solidarity among the doctors. The consultants used humour in the midst of the most complicated cases, this was a good strategy to diffuse the tension and help them lighten the atmosphere as they needed to find solutions regardless of the difficulties they were facing. The doctors have also used humour to laugh about other department or have a bit of sided conversation such as the business trade. These conversations had a valuable attribution as it bonded them as a team as they collaboratively joined in the humour's discussion. Their laugher is more genuine laughter as they talked about non-medical problems while the medical problem laughers were stressed and non-humours and filled with negative emotions.

This Chapter concludes the analysis by presenting details findings for the uses and functions of humour in medical context that uses English as a medium of PMC. The next Chapter will answer the research questions.

Chapter 7: Discussion and Conclusions

The present chapter aims to answer the three research questions presented at the end of Chapter 2, which have been addressed in the present study, to investigate how decision-making is performed discursively in doctor-doctor meetings in a Saudi hospital, and the discursive resources that the doctors utilised as they made their decisions. This offers insights into how language(s) and other resources are used to perform this complex genre in a multilingual healthcare setting, in which English is the main and required medium of professional medical communication (PMC) showing its benefits and challenges. The insights can provide implications for preparing the medical students to the demands of a healthcare workplace, in which they will be required to work as a team with team members who are likely to come from diverse linguistic and cultural backgrounds, with whom they might share a common language or not. It can also provide relevant insights for current medical professionals to raise their awareness of the aspect of discursive communicative resources that they can or need to use in ensure that the process of decision making is conducted in an effective and professional manner.

The chapter is structured as follows. Section 7.1 will answer the two main research questions, while section 7.2 will address the third research question regarding the pedagogical implications. This is followed by the contribution of the current thesis for research in 7.3 This chapter ends with limitations and future research directions discussed in Section 7.4.

7.1 Answers to research questions

7.1.1. RQ1: Prominent genre features of doctor-doctor decision-making in a context that uses English as a medium of professional communication

The first question in this study aimed at identifying how the team decision-making process takes place between doctors in this multilingual setting, in which, however, English was the required and expected medium of PMC. The genre analysis provided generic features of medical decision-making episodes, where one was unambiguous and straightforward and a less frequent type, while the other was more complex and occurring more frequently. The distinction between the two types of decisions starts with the length of the decision. Unambiguous decisions took a maximum of two minutes of interactions. Complex decisions included an extended length of discussion, as doctors had to deal with uncertainty as they considered their treatment decisions. More importantly, the study has shown that decisions are made by a collective agreement and the need for such an agreement, especially in the presence of uncertainty, led to longer interactions.

The analysis has revealed a presence of a generic structure, which is with some variability inherent to the decision-making process in a healthcare context. Using the model of genre analysis and its application to interprofessional settings (Bhatia, 1993), this identified generic structure includes:

1- Move 1 Presenting the Patient: Steps include patient information, diagnosis, medical status, treatment progress, medications and lab results.
2- Move 2 Pre-Decision: Asking about the next treatment or initiating a decision announcement and providing a rational for the decision based on medical evidence and doctors' expertise.
3- Move 3 Decision: Announcing the decision.
4- Move 4 Closing: Agreement with the decision (collective agreement) and Moving to the next patient.

Move 1 is essential for performing the genre and is connected to Move 2, where a rationale for the decision is provided. While there are no studies in the literature that provide a genre analysis of decision-making meetings within medical teams, the data provided in various studies present information that aligns with most of these moves as medical professionals present suggested decisions to their patients or medical staff (e.g. Costello & Roberts, 2009; Dew et al., 2015). Move 2 pre-decision involves giving a rationale which is crucial and can lead to an agreement on the decision.

Move 3 is where differences occur between the two decision types. In complex decisions, this move is replaced with other moves, showing variability between what I termed unambiguous versus complex decisions. It starts with additional moves in complex decisions, which include decision execution details (Move 3) and re-discussing the medical status (Move 4). Move three has one step for decision execution details, while Move 4 includes steps such as evaluation based on professional expertise, collective agreement, transactional details, and informing the patient and their family.

Other moves were similar, with one exception: having a discussion Move in the complex decisions. In addition, complex decisions required a continuous back-and-forth to the pre-decision move, which aimed to reach a collective agreement as the doctors dealt with uncertainty that they aimed to minimize or eliminate. Interestingly, the doctors frequently cycled back to rational discussions and re-evaluated the cases, even when they were in agreement. This has not been observed in the literature, which tends to suggest that decision making in teams is a linear process based on mutual understanding (Bouchez et al., 2023; Charles et al., 1997; Masic, 2022). Doctors would provide more rationale in cases where their decision was not met with immediate

agreement, received pauses, hesitations and passive resistance using minimal responses such as "mhm" from the patients (Costello & Roberts, 2009; Stivers, 2005). When a decision was proposed in studies involving medical teams, it was met with either agreement or disagreement (e.g. Dew et al.,2015). Initially, rationale would be provided, but no further rationale and continuous deliberations were evident, especially in cases of agreement. In this study, even an agreement, when it was not strongly collective, would push the consultants to rationalize the decision again. Silence has been shown in this research to be a major trigger that opens space for additional turns involving rationale. This is not unusual, considering that silence performs many functions and can be a sign of disagreement (Attardo, 2020).

A noticeable result was that epistemic status and primacy played a critical role in decision-making. Since knowledge based on medical research, experience, and current updated knowledge of a patient's status are all integral for decision-making, epistemics became a resource that prevailed in discussions and decision negotiations. Epistemic status, based on hierarchical position, was evident in those who announced decisions and presented treatment options (see the figure below).

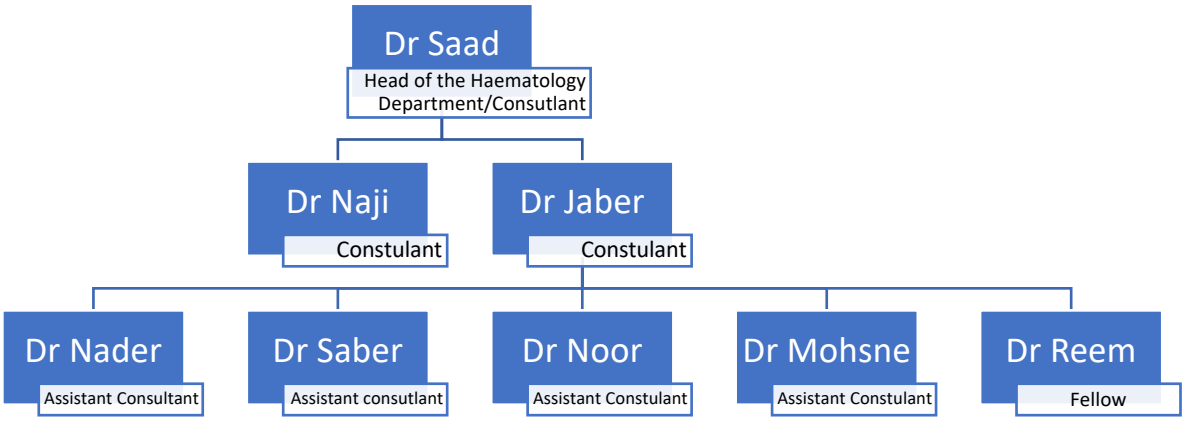


Figure 6 *Hierarchical positions in the haematology department*

The decisions were announced by the consultants only which reinforced their epistemic status based on their position, medical knowledge and more importantly experiential knowledge. Questions that requested decisions or advice on treatment options were directed towards the consultants. This shows that assistant consultants were aware of the high epistemic status of the consultants. As the discussions extended to reach a direction, consultants were again in charge of

it. Assistant consultants were still a part of the decision-making process. However, they were included as resources for the current updated medical status information of the patients, and it seems that this was the role that was discursively attached to them. This role was evident though the way how questions and answers were performed. In the context under study, it was mostly the consultants who asked questions, while the job of the assistant consultants was to answer them, and they were responsible for initiating Move 1, which was the handover of the patients. Thus, even if the assistant consultants did not have a direct say in the final decisions, they were still important for the knowledge they had of the patients. Their knowledge helped the consultants fill in the gaps of missing or new information that was crucial to consider, as they deliberated on the decisions. The data did not include instances where an assistant consultant made a decision. However, the data revealed that they would debate against decisions or suggest a decision and argue for it. Lastly, epistemic primacy in the decision discussion was given to the medical team while limiting the patients' family members' intervention. The inclusion of the patients' families as was seen as a threat to treating the patient as doctors, consultants in this study, were limiting the inclusion of family members. Family members were included when there were cases in which treatment was terminated. Since it indicated that the case was terminal, family members were included to ensure that they got answers to any questions and show their support to the family and explain the reasons behind the decision.

GA has provided an overall structure that decisions follow while emphasizing that complex decisions deviate and include many more moves and steps and a non-lean back and forth between moves and steps, which is the manifestation of the complexity. The limited literature about DM based on GA does not adequately represent how a team collaborates and negotiates decisions. There is also a lack of representation of how decisions are made in medical settings that are linguistically diverse, but which are required to use English as the medium of PMC. This needs more attention since diversity has and is expected to spread more globally, and this entails current and more use of English in PMC settings.

CA and IS have shown that this genre has rules and order in the sense that decisions have to be made quickly but efficiently. So, the doctors cannot sit in their meetings and debate forever. What would help them reach a decision is to follow hierarchy. The decision has to be collaboratively made, but there has to be a management of the process. In the practice of decision-making in a medical context, scientific evidence from lab reports and patients' status is important. However, it does not solely drive the decision. The interactions among the doctors do. This is evident from how consultants take turns using interruptions, asking questions and negotiating

decisions. Within these turns, consultants have longer, extended turns that are rarely interrupted, highlighting how their status contributes to the how management of the interactions leading to decisions.

Doctors need to communicate effectively with each other and avoid conflict because this could potentially lengthen the interactions and therefore the process of decision-making, which in turn could have disastrous consequences for patients, their treatment and life. They need to identify patterns that might lead to a conflict and be aware of how to manage the situation in this professional setting and which resources they can use to avoid or resolve it, such as using humour for warnings. It is important for doctors in higher positions and those in positions below them to know how to interact with each other in an interprofessional way. For instance, Dr. Jaber, a consultant, delivered a message to an assistant consultant about the responsibility for patient safety using humour rather than screaming or scolding. Interacting in this way ensures that all doctors have a voice and feel safe in the meetings, which int turn is more likely to contribute to an efficient and appropriate decision-making process.

7.1.2. RQ2: Prominent discursive resources that doctors use to reach a decision in a context that uses English as a medium of professional communication

The second question revealed the discursive resources doctors used in their decision-making interactions. The resources include code-switching and humour, which unexpectedly emerged as prominent stand-out categories of discourse resources being employed in the decision-making interactions.

Functions of code-switching (CS) included achieving transactional working goals, expressing negative emotions, serving as a conversational management tool, and using tag questions. As the doctors made decisions, they needed to ask numerous questions that required precise accuracy. Arabic was used to ask questions to obtain clear and precise information, report patient words that impacted their treatment progress, manage conversations by asking questions that extended the conversation to gather more details, give specific orders to close the conversation, and make interruptions using Arabic to either add information or ask for more. Ultimately, their reliance on Arabic supports Matras's (2009) claim that bilinguals code-switch with specific words to avoid the complexity of choosing more complicated words when they have the flexibility to choose simpler options. Thus, in this context CS clearly supported the efficiency of the decision-making process.

Doctors code-switched to Arabic when they needed to defend their image as medical professionals. This was evident when they reported patients' words verbatim, which contributed

to adjusting their decisions and treatment plans. Accordingly, code-switching to Arabic was associated with clarifying and explaining actions that could affect their image as competent medical professionals. For instance, Dr. Noor used Arabic to explain to the doctors why the patient himself was requesting to be treated with morphine, a medication that has strong restrictions even for the doctors.

CS was also used to convey doctors' negative emotional states, such as annoyance, frustration, and tension. Expressing emotions in the first language aligns with the notion that speakers resort to it because it conveys their largest linguistic arsenal and helps them deliver the message more effectively (e.g., Dewaele, 2006; Holmes & Stubbe, 2004; Pavlenko, 2005). The doctors also used Arabic in specific religious phrases such as "By Allah's will," which reinforced their religious identity and solidarity as a group with a shared resource and understanding of the meaning behind the phrases (e.g., Dewaele, 2010; Holmes, 2014). The continuous extended CS initiated by consultants and reciprocated by assistant consultants demonstrated the acceptance and flexibility of using Arabic in their interactions despite the requirement for English as the medium of communication in this context.

CS was not used in medical terminologies, such as disease dosages or department names, indicating that there was no need for it because the terms and departments were clearly known and understood by everyone. English was likely the norm for expressing such terms. When the doctors mentioned department names like ENT or tests like count limit, English was the language used. The results from the transcriptions combined with the observations in the hospital prove that English is given the role of the language of medicine. Any dialogue that included diseases, diagnoses, or side effects was in English only. Even as code-switching was a significant asset in the conversations, it was never used in medical terminologies. This shows that English has not only become the primary language to express transactional medical information but has also become the norm to use it even in the presence of other languages that have equivalents for medical terminology. Interestingly, it seems that the doctors do not prefer to express the terms in Arabic even if there were equivalents, as there were no examples in the data of such code-switching. Arabic was a valuable discourse resource for contributing to the decision-making interaction and for the relational work within these interactions but was used alongside English, not to replace it.

Arabic was also used by the doctors for religious phrases to serve relational work. In instances where doctors reported improvement in English during the handover, they used "thank Allah" in Arabic to express their gratitude, which are important instances of relational work. The

switch did not extend beyond the religious words. Thus, religious words were only expressed in Arabic, likely because they originate from Arabic, and this is the first language of the participants in this study. There was no code-switching with religious phrases. This shows that the doctors were able to use both languages for separate functions, even if it seemed unconscious.

The important finding, which emerged from this thesis is, that English assumed the dominant role as the language of what we may call transactional work (Vine, 2020) including medical terminology and exchange of medical information. It is therefore not surprising that English was predominantly used in unambiguous decisions, which were mostly based on this kind of information. Decisions that were complex and required more interactions and negotiations included a great deal of switches to Arabic often in instances which we can call relational work (Vine, 2020). It was simply used to 'oil the wheels' of collaboration and mutual understanding and increased the efficiency of the process of decision-making. This shows some limitations and possible challenges when English is required as a medium of professional medical communication and participants do not share a common language. Important relational work was often expressed in Arabic; had the doctors not shared the common language and relied on English only, this could have affected the team spirit and efficiency, which could have led to comprises in decision-making.

Although humour or laughter was not expected in this context, they emerged as important resources for doctors to get things done, i.e., to make decisions. Doctors are expected to be experts in their specialized fields, and this can put pressure on them because it is their job and responsibility to find solutions for their patients' cases. This creates pressure on their professional image as they work under uncertainties within limited time to make decisions and save patients who are running out of time. The analysis has shown that humour was used to manage and deal with bad news, allowing the doctors to express negative emotions. Humour emerged in the midst of working with complicated cases and unfortunate outcomes when they had exhausted all their medical resources and expertise without being able to help the patient. For instance, the discussion between Dr. Naji and Dr. Saad shows their use of laughter as they refer to the expected end of the patient's life.

196	Naji:	مو هوا he will not come back whatever [you do]=
		Well he will not come back whatever [you do]=
197	Saad:	[{laughs}]

The doctors in this study never said the word death even when they know that it was going to be an unfortunate outcome. Their laughter as they mention is a stressed laughter. In studies that included doctor-patient interactions that break bad news, the word death is not mentioned by the doctors as they break the news to their patients (e.g. Tate, 2020) and doctors laugh-off difficult interactions (e.g. Zayts & Schnurr, 2011). The difference here is that this study is based on interactions between professionals. Yet, it can be seen that accepting this outcome is not easy for them either, which leads to evading using explicitly the word death and laughing while talking about it.

Doctors used humour in a face-threatening situation which helped maintain rapport within the team. Humour had the function of mitigating face threats because the consultant used it to deliver criticism and warnings to assistant consultants. Consultants also resorted to humour to express their disagreement or challenge the authority of other consultants. Sharing humour with colleagues, especially during discussions involving sensitive topics, contributes to building solidarity among team members and defuses the tension that could arise during such discussions while maintaining good relations with others and this is vital for interprofessional relations in any workplace context. Consultants have a higher authority based on their titles and the dynamics of the interaction seen in this study that makes in in control or orders and decisions. It is interesting that the consultants continued to rely on humour in their interaction especially when criticizing the assistant consultants. It seems that the team in this study were aware of their responsibilities to address and reprimanded others for mistakes since doctors' mistakes can lead to losing lives. The fact that they resorted to humour in those situations shows that they care about maintaining a good relationship with all doctors regardless of their position. This is vital in their meetings because it will help in guaranteeing that the working environment is a safe place for doctors and ensures that there will be an open conversation about everything that they do with their patients.

Humour is part of building and sustaining collegiality among team members but in this instance, it was used to creates 'real' laughter. The doctors used humour to laugh about how to perform some transactional aspects of their jobs. An example of this is when they compare transferring patients by exchanging them with patients from other hospitals as a 'business trade'. As the doctors used humour, they code switched to Arabic. This result is due to how humour was associated with expressing feelings wither positive or negative, and using Arabic is expected as it is linked to their biggest linguist arsenal and ensures that they express their feelings strongly.

Lastly, as the doctors used humour in all the previous functions, the respect of authoritative boundaries of this context was evident in who initiated humour towards whom. I would argue that

the epistemic status of the consultants contributed to this use as well. Humour was initiated by the consultants towards the assistant consultants, and the opposite never happened. This shows that the asymmetries between the professional continue to exist. It is not surprise since institutional hierarchy and context's cultural expectations cannot be eliminated. Humour has become a valuable asset in negotiating interactions within the existence of the asymmetrical hierarchies to achieve the outcomes of the interactions, which is reaching a decision. It was carrying the same value even when the conversations were among the consultants only as it became part of the dance of power between the consultants when they disagreed using humour with each other as they reached a decision. In a context that is overshadowed with bad news and uncertainties, humour has become vital for helping doctors continue addressing the complexities of their jobs and release some of its pressure in order to be able to be a functioning member of the healthcare team.

Other resources revealed when conducting conversation analysis were resources that were used to manage uncertainty or changed the discussion from reaching an agreement on a decision to going back to extended discussions. These resources include pauses, hedging, latching, interruptions, and overlaps. Pauses and hedging indicate uncertainties. The presence of pausing after asking what should be done as in when Dr. Naji asked Dr. Nader 'what's the plan', and Dr. Nader repeated the question and paused was a sign that the doctors were uncertain of what do, and their following discussion of the complexity of the case support this. Uncertainty using pauses was evident when Dr. Jaber suggested a treatment, paused and then expressed that it was the only solution at hand.

Hedging in this study is associated with uncertainty. The consultants resorted to it to frame an issue by expressing early on that there is a problem or by using hedges such as 'I think' or 'maybe' as they were contemplating a decision. Overlaps were present when the doctors disagreed with a decision. Interruptions led to further discussion of a certain point before moving along. Silence was also a significant motivation for rediscussing a decision, as it indicated disagreement with the proposed decision. Lastly, latching has shown that the nature of the meetings required reaching decisions quickly due to the criticality of the cases and the limited time in which patients have to be treated. This showed that in a critical context, interactions do not have the luxury of wasting time in deliberations, as it seemed that doctors were accustomed to the quick nature of their conversations.

7.3 Pedagogical implications

This section answers the RQ3 Based on the results from RQ1 and RQ2, what are the pedagogical implications for improving doctor-doctor decision-making in contexts where English is used as the medium of professional communication?

This is important for medical professionals who are about to start their careers, as it gives them insights into how they can perform their roles as part of a team. Decision-making genre is not performed by one or two people; it involves a team that operates based on hierarchy. In real life, teams have several members, and this needs to be reflected in the textbooks that medical students are exposed to during their educational journey. To perform this genre, many discursive resources are part of it. The genre is heavily influenced by how experts and hierarchy control the decision direction, as represented in epistemic status and epistemic primacy. There are roles assigned in this genre, as seen by how consultants ask questions and decide, and assistant consultants answer questions and provide the information needed to give comprehensive background knowledge of the patients' condition. Even as it shows assigned roles, it still emphasizes that a team is working collaboratively in this context even if they gave the responsibility of the decision to the consultants. The consultants cannot operate on their own. Otherwise, how would they know that they made the right decision based on a limited opinion. Younger newcomers might not be aware that decisions are made collectively and therefore stay quiet and do not participate in these discussions, even though they should. They need to bring their knowledge and insight to the table but also understand the extent of their role and the hierarchical boundaries. If they assume that everything is entirely collaborative, they may talk excessively without ever reaching a decision. This highlights the importance of managing the process effectively. Doctors have to manage things in a way that ensures an efficient process in the medical context, as patients are waiting and do not have time to spare.

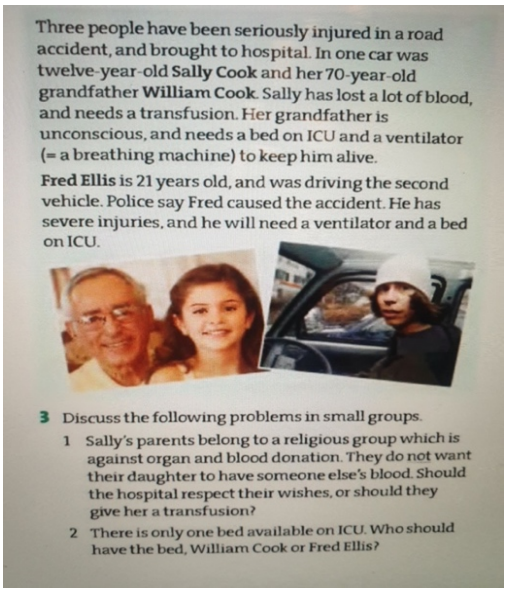
To answer the last question, the study presents the following implications for how to prepare and educate medical students to be aware of the interactional intricacies of doctor-doctor decision-making in teams in a hospital context. This and other studies in the literature emphasize the importance of collective decision-making in medical teams (Bouchez et al., 2023; Charles et al., 1997; Masic, 2022) but not much detail is provided on how to perform this collaboration in a context of time pressure, uncertainties, professional hierarchies and English as a second/foreign language. The genre analysis provides students with an understanding of how this collaboration could be achieved through raising their awareness of the specific moves and steps, so that they know how to perform this genre effectively and professionally. For instance, a new member or doctors in lower ranks must follow certain steps, such as providing information and asking

questions without interrupting higher-ranking doctors. It is important for new workplace members to understand this because if they join the conversation immediately and interrupt, it could create a conflict. They must follow the hierarchy that regulates the DM process, but that does not mean they do not have space and a voice in decision-making because they do, as pointed out in the discussion. If doctors started talking all at once, they would never reach a decision. All doctors, especially the new ones, need to understand the responsibilities attached to their positions so that they can contribute more efficiently to the DM interaction. A key aspect of this is following the hierarchy, as it determines how responsibilities are distributed among team members.

Another important implication for medical teams is the unavoidable effects of cultural diversity and the importance of relational work on workplace interactions. For example, in this study, doctors used multiple phrases that reflected the religious identity shared by all doctors. These phrases were used in conversations to do more of a relational work such as confirming agreements. Doctors who would not share the same religious or cultural background would not understand such references, and this might cause difficulties in communication in a high-risk context that cannot afford mistakes because they would affect patients' lives. Based on the opinion of the researcher, who shares the same religious identity of the participants in this study, it is almost impossible to restrict the use of the phrases, as it would be seen as a big clash with the religious and cultural identity of the doctors. However, doctors who work in diverse workplaces need to be aware that doctors from different linguistic and cultural backgrounds might not understand them, and they need to strive to ensure that they are well understood by newcomers. Newcomers need to expand their understanding of the cultural differences in the places in which they work to guarantee that they have a smoother transition into the new workforce.

Regarding implications for medical students, it is highly important to expand the ways medical students are prepared for their future jobs in hospital settings that require interprofessional medical communications to be conducted through the medium of English. The researcher's experience as an ESP (English for Specific Purposes) and EGP instructor (English for General Purposes) with medical students and then as a researcher who investigated an authentic medical site reveals that there is a huge gap in how approved and widely used textbooks for English for Medical purposes treat interactions and how interactions occur in real-life medical settings. For example, the widely used textbooks in medical schools in Saudi Arabia such as *Oxfords English for Careers and Nursing 1* focus almost exclusively on medical terminology and writing skills of medical information – aspects that as this study has shown, are needed and indeed well performed when it comes to unambiguous decisions. However, the more complex decisions involved much

more negotiations and relational work, which were performed in both English and Arabic. Aside religious phrases, the switches to Arabic might suggest that perhaps the doctors did not have enough preparation and experience of using English for relational work in the professional setting, which would reflect the focus of the textbooks. There was nothing in the books that described how doctors would be involved in interprofessional interactions, let alone in decision-making interactions. I provide below examples from the current textbooks *Oxfords English for Careers; Nursing 1and 2* (Grice, 2007) as a sample of the conversations taught to the students and I compare them to example from my data.



Three people have been seriously injured in a road accident, and brought to hospital. In one car was twelve-year-old **Sally Cook** and her 70-year-old grandfather **William Cook**. Sally has lost a lot of blood, and needs a transfusion. Her grandfather is unconscious, and needs a bed on ICU and a ventilator (= a breathing machine) to keep him alive.

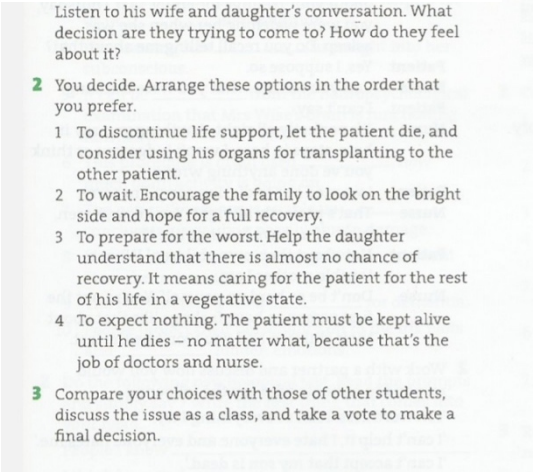
Fred Ellis is 21 years old, and was driving the second vehicle. Police say Fred caused the accident. He has severe injuries, and he will need a ventilator and a bed on ICU.

3 Discuss the following problems in small groups.

1 Sally's parents belong to a religious group which is against organ and blood donation. They do not want their daughter to have someone else's blood. Should the hospital respect their wishes, or should they give her a transfusion?

2 There is only one bed available on ICU. Who should have the bed, William Cook or Fred Ellis?

Figure 8 *Example 1 from Oxford Nursing for Careers*



Listen to his wife and daughter's conversation. What decision are they trying to come to? How do they feel about it?

2 You decide. Arrange these options in the order that you prefer.

1 To discontinue life support, let the patient die, and consider using his organs for transplanting to the other patient.

2 To wait. Encourage the family to look on the bright side and hope for a full recovery.

3 To prepare for the worst. Help the daughter understand that there is almost no chance of recovery. It means caring for the patient for the rest of his life in a vegetative state.

4 To expect nothing. The patient must be kept alive until he dies – no matter what, because that's the job of doctors and nurse.

3 Compare your choices with those of other students, discuss the issue as a class, and take a vote to make a final decision.

Figure 9 *Example 2 from Nursing for Careers*

Speaking

D = Patient's daughter, W = Patient's wife

D How is he? How's Dad?
W Oh, the same. There's been no change.
D We've got to give it time.
W Time, Barbara? How much more time? He's been in this coma for eighty-three days now.
D I know, Mum.
W I spoke to Dr Williams this morning. He says the prognosis is not good. He says we should consider the possibility that even if your Dad wakes up, he will probably be a vegetable. He'll be conscious, but he won't be able to do anything for himself. Oh God! He wouldn't even be able to think.
D How does Dr Williams know that? He doesn't know that. You hear stories of people coming round after being in a coma for years.
W He's only alive now because of the respirator. If you switched that off, his body would die.
D On the other hand, he could wake up at any moment. It is possible that he could make a full recovery.
W Look, I don't even feel that this is him. I mean I know it is him, but he's just not in there. He's not aware, he doesn't feel anything. Your dad, he was always so full of life and he wouldn't want this. He would also want us to get on with our lives, wouldn't he? Not spend all our time sitting here; watching.
D Mum, you don't know this. Nobody has the right to make this decision, not you, not Dr Williams, no one.
W You're wrong. It means we've got to do the thinking for him. If we could ask him if he wanted to stay on this ventilator like this, what would he say?
D I think he'd say yes. He'd say, 'where there's life, there's hope.'
W There's another thing.
D What?
W Do you remember yesterday there was that terrible car accident? Remember all the ambulance sirens and everyone rushing around? Well, one of the victims is in that bed over there. She has severe internal injuries. The nurse told me earlier. Apparently they're waiting for donor organs and if they can't get them, she's going to die. She's twenty-one. It's such a shame, such a waste. And I was thinking …
D No, Mum!
W To save someone's life, Barbara? What would your dad say?
D He's my Dad. I don't care. I don't want to let him go. He needs us now, more than ever. He needs us to watch over him and take care of

Figure 7 *Transcript from Oxford Nursing for Careers*

The two pictures above are the examples of speaking prompts. There are no transcripts of how to perform the exercise. The third picture is a transcript of decision-making between a mother and her daughter. In comparison, I am using the unambiguous decisions Episode.

344 **Reem** … ahh plan during the ah weekend ah just follow ال gastro and nephron ahh
345 and patient on normal celine one hundred ah ml because patient * hydrated
346 and: ah follow up بال lab haemoglobin WBC absolute metro turophilic count
347 and creatinine
348 **Noor** في أي * plan for restarting starting /
349 **Reem** /and/
350 **Noor** / * ولا :=
351 **Naji** = hopefully next week =
352 **Reem** = mm? =
353 **Naji** = Sunday Monday depending on the /[creatinine]
354 **Noor** / [بعد ما يبقى:] discuss with the family يعني =
355 **Naji** = no on I discuss with him amm يعني ال son wants to: take him out ahh
356 against medical advice=
357 **Noor**= ahm=
358 **Naji**= ahh I explained to him totally the whole situation he does understand * the
359 do a *CT
360 ** on the twentieth of Fabu_ of: January just to check if the legions have
361 decreased or not with this treatment ahh but Sunday Mon_ Monday probably
362 a good to follow with chemo if he agrees it all depends on what they decide
363 over the weekend=
364 **Noor**= ahm next patient {in a low voice}=

There have been adjustments to the transcript to shorten it for comparison purposes, and the transcript with translation is included in the analysis. There are numerous differences between the sample from the textbook and the sample from this study. As seen in the pictures, the textbook provides prompts without any accompanying transcripts as examples. When an example was provided, it depicted a conversation between a mother and her daughter, rather than between medical professionals or a medical professional and a patient Thus, already the choice of the participants reflects contexts that are not relevant to actual medical practice.

In terms of language, the textbook example is overly structured, and the decision-making process was already outlined for the mother. This scenario reflects a decision between the mother and her daughter. Although it includes references to medical facts, these are not comparable to the medical facts presented in the "unambiguous decision" sample. For instance, the sample does not provide explicit detailed medical information about the patient status and progress, and the information used by the mother represent how lay people talk and not specialized medical professionals. The "unambiguous decision" sample illustrates how medical facts are reported and discussed in an interprofessional context.

The conversation between the mother and daughter is conducted in English following an orderly exchange of turns. In contrast, the sample showing a real-life interaction representing an "unambiguous decision" includes multiple team members, features of real-life conversations such as interruptions, latching and overlaps. While medical knowledge is a key factor in decision-making, the way this knowledge is conveyed through discursive resources in language is crucial to avoid misunderstandings such as when CS is used in this study to get fast and specific details about patients. Being exposed to only conversations such as the one included in the textbook, which are orderly, well-structured and linear, medical students might develop an impression that this is the way how conversations in English and in medical settings are conducted, which then again might make it difficult for them to participate efficiently in real-life interactions such as those involving decision-making.

This research has shown that the process of decision-making is rarely straightforward, linear and rational flowing from the availability of medical data (tests and results), something that graduated medical students and new doctors might be expected. As this research has shown, there is a back and forth and constant management of the interactions which agreements and disagreements negotiated in different ways using various discursive resources such as using humour to warn against a decision or utilizing hedging to show that there is uncertainty which leads to further discussions to reach a collective decision. There are certain parts of the knowledge that are negotiated but as the analysis has demonstrated, knowledge is never completed because it constantly updates and changes and thus each decision is mostly a momentary phenomenon, which can change rapidly as new knowledge becomes available. Each patient differs in the ways in which their conditions develop and how they respond to treatments and medications. Knowledge from textbooks can only be applied to a certain extent, and doctors draw on different available source of information including their experiential knowledge to make a judgment and make a decision.

Students need to understand that on a broader level and particularly when they have to make a decision that there are different steps and moves with different kinds of discursive resources that can be used. They need to understand that that the actual process of decision making is different from the rational and logical models presented in the English medical textbooks medical (e.g. *Oxfords English for Careers; Nursing 1*) and which might be taught when studying and practicing medicine And based on the current teaching materials that are being used in Saudi Arabia to prepare students for their profession in hospitals, these are examples of dialogues that are too organized and too 'logical' not representing real-life interactions in doctor-doctor meetings and conducted through the medium of English as PMC. There are no interruptions, overlaps, more than two participants talking, code switching, humour or expression of negative and positive emotions.

7.3.1 Lesson sample

The following is a lesson example for teaching decision-making in English within a PMC setting, using a complex decision from this study as a sample. The plan is based on the results of genre analysis, conversation analysis, and interactional sociolinguistics. As a teacher with years of experience in teaching English, combined with my postgraduate studies, I recommend that the lesson be taught in stages. This approach is also informed by literature that integrates GA into lesson plans for writing and speaking in scientific and academic contexts (Hefner & Miller, 2019; Troyan, 2021).

The lesson should ideally be taught after previous lessons that include case studies and handovers, as these provide the foundation for understanding the genre's initial Move and contribute to building medical students' background knowledge of spoken medical interactions. Each lesson will have the following objectives: identifying the major Moves in decision-making, identifying the Steps within each Move, understanding the purpose of each Move (its function) and recognizing how language is used in each Move and Step.

The goal is by the end of teaching this genre, students work in groups and role play making a decision about a hypothetical medical problem. The sample lesson will focus on the introduction of the genre and two Moves.

Day one- Task 1:

Teacher uses Power point to present the background of the meetings. The student work in groups as they read the background prompt and explain it to each other.

Background:

Dr. Nader, an assistant consultant, reports the case of a patient suspected of having a second malignancy due to his unstable condition despite receiving highly escalated treatment. He mentions that the patient is dealing with side effects from an infection, which has begun to improve. The doctors are waiting for the laboratory results to confirm the presence of the second malignancy and to assess the treatment infection. Furthermore, they discuss suitable treatments based on future results.

Task 2:

The teacher uses a PowerPoint presentation to display the diagram of the doctors participating in the meeting and their positions. The students are then asked to examine the diagram and consider the differences between the doctors depicted. After reflecting for five minutes, the students share their observations. The purpose of this task is to familiarize students with the hierarchical differences among the doctors and how these differences influence the order of conversation and who does what (e.g. who asks questions and who answers them). The teacher joins in the discussion and explain to the students the importance of hierarchy and the positive and negative consequences of not adhering to it in interactions.

Day one will include Move 1. Each day will cover two Moves. The teacher starts by showing a PowerPoint of the genre overall Moves and Steps. Then, present the following section on PowerPoint.

Move 2 (pre- decision)

279 Naji so ah (0.1) the issue in * this both veins are still draining he had only
280 the left side now he has the right side * we cannot * he's bedbound
281 he does not he is not cooperative he does not even sit on the bed and
282 he has a lot of secretions/
283 Nader /yah code status /
284 Naji / he will: ah end up developing
285 pneumonia and we have max_ maximize his: CLL therapy which has
286 respond in the form of some lymph node shrinking now he definitely
287 has something else we did a biopsy two days ago CT guided ultrasound
288 guided ah * biopsy but I think he should be no code so: we do
289 maximum what we can on the floor but this patient should not go to ICU
290 Nader mm=

Activity:

Students are asked to read the transcript and say what they notice. As they provide their responses, the teacher focuses their attention on instances of hesitation (e.g., "so ah"), pauses (e.g., (0.1)), interruptions, and Dr. Naji's extended turn. The teacher then asks the students to explain how Dr. Naji presented the pre-decision. Finally, the students are asked to identify who initiated the decision.

The teacher joins in and present each Step on the PowerPoint while highlighting in different colours each Step.

Move 4 (pre-decision)

305 Nader / [**] put in DNR but if confirmed second malignancy palliative=

306 Jaber = لا لا مافيش اه

307 لو طلع malignant =

307 Naji= second malignancy palliative * =

308 Nader = but if just DNR /

309 Jaber بس: عايز أقول لك و لو / second malignancy

310 ما يتعالجش الا لو حاجة بسيطة

311 Noor [مش بسيطة عنده دا static right adrenal gland] ahh

312 [two doctor are talking]

313 Jaber لو lung cancer يعني =

314 Noor = ايوه =

315 Jaber= ما ممكن يدوله /[*]

316 Nader / [*] لو كان فيه * mutation **=

317 Jaber = نعم حيعملوا له ** [بس ممكن *]

318 Noor [***] [**]

319 Nader [**]

320 Jaber ما تستعجلوش { laughs} ما تستعجلوش يا جماعة (ما تستعجلوش) دا قرار اعدام

321 Nader [ايوه]

Activity:

Students are asked to read the transcript and share their observations. As they provide their responses, the teacher directs their attention to how disagreement is expressed and the use of humour. In each transcript, students are encouraged to read and analyse the responses within the turns, offering their own interpretation of why the consultant used humour and code-switching and the underlying meaning behind it. The teacher then asks the students to consider why they think there was a disagreement with the DNR option and how it was expressed and what kind of language was used to resolve it. As the lessons progress, students' attention is continuously drawn to the ongoing nature of negotiations and how the conversation moves back and forth.

Medical students need to be aware of how to participate in decision-making meetings because they are a crucial part of their careers. Being represented with genre samples will show them moves and steps that they need to consider, as well as make them understand that they need to be flexible as they engage in such interactions.

To conclude this section, it is important to once again highlight the interrelation between the first and second research questions and their relevance to workplace communication in contexts where English is used as the medium for professional medical communication (PMC). There is a significant connection between the two research questions. In workplace communication, relational and transactional interactions often go hand in hand (Schnurr, 2009; Vine, 2020). Decision-making, as a genre, is primarily a transactional interaction, but its success depends on the effective use of various discursive resources within the decision-making process and the relational work performed.

Code-switching and humour are discursive resources typically associated with relational interactions. Their presence and utilization in this study have been instrumental in achieving the transactional goal of decision-making during meetings. English was predominantly used in "unambiguous decisions," which is not surprising given that these decisions were straightforward and mostly transactional. The doctors were primarily exchanging medical information, which involved minimal negotiation. While there was some code-switching, it was relatively infrequent in these cases.

Teaching materials currently used in universities that focus on medical terminology may be applicable to unambiguous decisions, but the realities of medical practice show that complex decisions are more common and expected than the unambiguous ones. On the other hand, complex decisions involved a considerable use of CS and humour. The switches to Arabic were more frequent because the doctors needed to engage in more relational work, such as defending themselves, expressing stress, and handling bad news. Humour was always expressed in Arabic,

and code-switching to Arabic for humour seems to be preferred as it enhances the relational dynamics that doctors engage in during meetings as they reach decisions.

The use of relational interaction to support transactional interaction is absent from the textbooks currently in use at the university. Addressing this gap is crucial to help doctors learn, prepare, and engage more effectively in their working environments in Saudi Arabia.

7.4 Contribution of the thesis to research

This study makes several contributions to the field of applied linguistics research, specifically applied-linguistic research to health communications. First, it provides insights into doctor-doctor communication that has not been explored in detail to date. Moreover, it provides important findings demonstrating the interprofessional lived experience of communicating through English as the medium of PMC showing its benefits but also challenges for medical contexts. The analysis reveals how people use their languages and what they do with it and what for what purpose. Although the doctors used English predominantly because this was the requirement given the diverse workforce, they switch to Arabic, showing that code-switching is important discursive resource as it becomes a salient component of the conversations. This is a significant contribution because it offers a better understanding of interactions and patterns in doctor-doctor communication. It also raises awareness of the limitations of the policy of English as the medium of PMC in diverse workplace contexts. It was clear that switching to Arabic allowed for more efficient, harmonious and interprofessional interactions and it was facilitated by the fact that all doctors shared the language. If there had been participants who did not share the language this could have an exclusionary effect in that they would not have been able to participate and understand the conversations, which could potentially undermine the relationship between the medical professionals but also have negative consequences for the decision-making process and therefore patients.

Another contribution is that DM in medical contexts must be collaborative, but my research has shown that collaboration cannot go on indefinitely. It must be managed through the employment of authority, which can come from the hospital hierarchy. The epistemic status and primacy control this collaboration. In this context, the epistemic status is within the hands of the consultants due to their position and knowledge. Epistemic primacy is the decisive factor that limits the ability to join and conclude a discussion.

Even though the literature stresses that DM must be collaborative and efficient, this perspective often comes from business research or other studies that are based on abstract models

not based in in-depth examinations of actual decision-making interactions. They do not understand the different steps or moves performed to manage the DM process. For example, in studies on decision-making in business contexts, there is typically no discussion about specific interactional features such as interruption or latching and the focus is mostly on the 'what' of the decisions. Therefore, when business research examines the management of talk, it provides a vague and abstract description of the conversations and states that DM must be collaborative. What does collaborative mean? If it is entirely collaborative, there would never be an end or a decision. The DM process must be managed, and by studying the conversation using a combination of GA and CA we can truly understand the different Steps and Moves that allow us to comprehend how the genre is performed, what is done, and how to do it efficiently.

7.5 Limitations and future research directions

This study has several limitations. The first limitation is that it does not include interviews related to data analysis which could lead to more specific information and contextualisation of why and how the doctors were using the language in the episodes and examples rather than relying on the researcher's interpretation backed up with the literature findings. This limitation does not undermine the results because, in the end, unique and authentic conversations were analysed that allowed us to understand how English and Arabic and other discursive resources were employed in doctor-doctor communication, which to date remains an under-researched area in health communication. Interviews would have revealed why it was the consultants in this context who were only asked what to do next. Was this protocol used everywhere? Or were there other reasons that prevented the assistant consultants from making a decision?

This limitation could be addressed in future research by starting with a pilot study. Based on the data collected from the pilot, preliminary analysis can take place where the results would help in narrowing the scope of the study to examine, for instance, humour in medical decision meetings or agreement/disagreement strategies in decision meetings. This would help researchers consider their interview protocol at an earlier point and adjust it later based on observation of the meetings and audio recordings. This would enable interviews within a reasonably short period of time after collecting the data to guarantee that the participants had not forgotten the meetings and what they said in them. Medical professionals work long shifts while dealing with many inpatients and outpatients. Therefore, their availability for interviews cannot be guaranteed, as what happened when the researcher in this study tried to contact them several times. More importantly,

they deal with the loads of information on a daily basis. Thus, the faster the interviews take place, the more likely it is that they would be able to recall the details of the meetings.

Another limitation was the small sample size and collected from one medical setting only. Therefore, the results cannot be generalised to other medical and interprofessional settings. There is a need to conduct similar studies in different departments of the same hospital and in different hospitals. The team members in this study seemed to work well together, but this may not be the case in other departments. The period of data collection was short. Accordingly, the team could have been aware of the researcher's presence during this time. Extending it to a longer time might make them forget the presence of the researcher and possibly be more authentic in their interactions. Eliminating or limiting their awareness of being part of a study could also take place if the recordings were in the hands of one of them without the presence of the researcher. However, if the researcher was not on-site doing the observation, it would exclude valuable insights from the observations. Ultimately, doctors are medical experts and not linguists. This may be resolved by using video recordings next to audio recordings. However, as a researcher with a background similar to the cultural and geographical location of the study, I do not see this as a possibility. Many participants did not participate in voice recording alone. Making video data would severely limit the possibility of obtaining participants.

This study had participants who all spoke Arabic, with different varieties. Other studies need to explore contexts that use English as the medium of PMC but with participants who do not share the same language because it will help us see how they manage the interaction and the relational work in particular. Relational work is inseparable form transactional work (Schnurr, 2009; Vine, 2020), so how can it be accomplished when team members do not share the same language? and how can it affect their interaction and their working outcome?

It is the hope of this researcher that more studies similar to this research will be conducted while considering the limitations. The medical context has proven to be a very difficult site for access, especially for an applied linguistic study. The more studies come to light, the more aware medical students and professionals would be of how their interactions would help advance workplace goals further. Ultimately, patients will always be at the heart of interest in improving medical interactions because the aim is to preserve lives and provide patients with the best healthcare quality. This can be achieved by ensuring that medical teams can interact very well and collaborate with each other.

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Appendices

Appendix 1: Interviews

ما هو دور اللغة الإنجليزية في مكان عمل الكادر الطبي في السعودية؟

اللغة الإنجليزية؟

إيوه.

اللغة الإنجليزية تعتبر آآآه رقم واحد استخداماً في المجال الطبي. لأنه آه الصراحة أحس المجال الطبي طبعا تواصل بين العالم أجمع ولغة العالم تعتبر اللغة الإنجليزية. فقط يعني.
بالنسبة ليكم في العمل نفسه في المستشفى، إلى أي مدى هو مهم في نجاح الحياة المهنية للأشخاص اللي يشتغلو في الطب؟
آآه الأشخاص اللي يشتغلو فالطب آآه تعرفي أن آآه هنا عندنا فالسعودية من مختلف الجنسيات. فعشان يسير فيه آآه تواصل فعال لازم الكل يجتمع على استخدام لغة وحدة الكل يستخدمها مع بعض فبنستخدم اللغة الإنجليزية بشكل عام.
متى تستخدم اللغة الإنجليزية ولماذا؟ هل يمكنك إعطاء أمثلة لمثل هذه المواقف اللي يكون التواصل فيها باللغة الإنجليزية تحتاجوه ويكون مناسب؟
آآآه بالنسبة ليـ التواصل بين الممرضين بينهم وبين بعض لازم يكون باللغة الإنجليزية عشان يعنييي آآمم أه الـ الاستخـ استخدام الـ أه الـsystem والأشياء هادي كلها بتكون إنجليزية، فلما نستخدم اللغة الإنجليزية يكون الـ الـفهم أفضل لأنو الـ آآه مثلا الدكتور آآه حاط order الاوردرات بتكون باللغة الإنجليزية التواصل بين الـ آآه الطبيب والممرض بتكون بـ باللغة الإنجليزية لأنه الطبيب آآه الـ الـsystem عندنا بيكون انجليزي بحت فلمن الدكتور يدخل الـ آآه الـorder مثلا في الـ آآه فالـsystem باللغة الإنجليزية ويجي يـ آآه بيسلمك أو يكون الـcommunication بينك وبينه باللغة العربية فأتوقع إنه حـ لازم يكون فيه حاجة missing، أما لما يكون حاط الـorder باللغة الإنجليزية ويجي يوصلّك الـorder كمان verbal order يقولك هوا باللغة الإنجليزية كدا حيكون إن شاء الله الـ آآآه الـ communication يعنييي فعّال ويكون الـcommunication آآه اش يقولو عنه آآآه يعني يكون خلاص مفهوم بالنسبة للـ آآآه غيوه للممرض. بس ووو التواصل يعني بشكل عام بين التمريض و الـ والكادر الصحي كله الـhealth worker كله بيكون باللغة الإنجليزية.

يعني إيه order؟

لمن الدكتور يدخل مثلا أنا أحتاج أعمل آآآه أه بالـ آآم للمريض التحليل الفلاني هدا يعتبر order دخله الـ آآه للممرض، التحليل مثلا الدكتور يدخل فالـ آآآآه system: CBC ar aah rodeal آآآه كدا أعمله فالساعة الفلانية أو فالوقت الفلاني نحتاج آآه التحليل الفلاني أو إنه الدكتور يدخل مثلا stat ahh medication، يدخل ادوية مثلا أبغاها فالوقت الفلاني هدا يعتبر order بالنسبالنا، والتـ والـممرض يفتح الـ آآه بالـaccount تبعه يفتح الـsystem نفسه يطلع له الدكتور إش حاطط له اش كاتب يبغى، هدا order، يعني الـ آه الـ الممرض بيشوف الدكتور طالب للمريض كدا كدا كدا، الـ الـ الـ الدوا الفلاني فالساعة الفلانية ينـ ينعطى، الممرض يفتح الـ أه الـsystem يشوف هادي خلاص، هادي تعتبر doctor order، فيروح المريض الممرض يطبقها يسوي الحاجة نفسها ويجي يوقع فالـsystem خلاص اتطبق الـorder سواه، فبعض الأحيان يكون فيه حاجات stat بعد ما الدكتور يدخلها فالـsystem، مثلا لو الممرض يكون مشغول فيجي الـ آآآه الدكتور بعد ما يدخلها يا يتصل على الـstation عند التمريض أو يجينا، فيجي يكلم الـ الـ الممرض يقوله انا دخلت لك للمريض الفلاني order كدا كدا stat أبغاك تخـ تروح تسويه دحين حاليا، فخلاص الـorder stat هدا لمن يجي يبى يـ يتكلم عنه أو يـجي يقول بـ دخله وكدا يستخدم اللغة الإنجليزية، ليش؟ لأنه فالـ آآه فالـ system محطوط باللغة الإنجليزية فإنتا لمن تجي أصلا بيكون عليك صعب إنك تجي تسـ توصـ تـ أه تترجم يعني تترجم الكلام كامل اللي إنتا حـ أنت اللي إنتا كاتبه بالانجليزي فالـsystem، إذا كنت تبى والله تبى تستخدم هنا يعنيي فالـsystem إنجليزي وبعدين تجي تستخدم عربي فحيكون فيه شوية

difficulty، أما لمن لمن آآآه خلاص يجي يدخل الـorder كدا ويجي يقولك بالإنجليزي انا سويت كدا كدا فبتكون سهالات، هادي هيا طريقة إيوه .. أو أه أشعة كلها بتدخل زي كدا أوردرات، فالدكتور يدخل مثلا أشعة للمريض ووبعدين الـ آآه التمريض يشوفوها ويتواصلو مع قسم الأشعة وو نزلو المريض، هدا كمان يعتبر order، الدكتور يدخل مثلا الـ الـ أه الـ dietitian الـ الـ آآآه الـ الـnutrition يكون آآه أه اشش أه اش يحتوي على ايش كدا كدا كدا كدا، حتى هادي بتكون order تعتبر، وبعدين التمريض يوصلو للـdietitian الموضوع وخلاص يطبقوها، زي كدا هادي الأوردرات عندنا.

الأوردرات هادي تكون على الـsystem يعني قصدك على الكمبيوتر نفسه؟

إيوه على الكمبيوتر. إيوه.

انا لاحظت إن الـnursing staff يستخدمو الكمبيوترات مرة كثير continuously.

إيوه لأنه كل كل حاجة كل شي يسووه أنا خلصت الـ الـ الحاجة الفلانية للـ آآه للمريض لازم أجي أوقع عشان الدكتور باستمرار حتى هوا كمان بيشيّك على الـsystem يجي يشوف الـ آآه الـnursing notes مثلا انا سويت كدا كدا كدا للمريض لازم يجي يدوّن، أي أيبي مكان أي قسم فالمستشفى يقدر يفتح نفس الـsystem فنفس الوقت ويشوف إنتا اش سويت للمريض اش باقي ما سويت، ممكن في حاجات د آآه حطّ حطها للمريض تتسوا انتا سويتها بس ما دوّنتها فتعتبر انك ماسويت، إيوه فـ أه فتحسب عليك delay لانه فيه quality فيه الـ آآآه الأقسام التانية الـ اللي هيا المتابعة الـ infection contro أه الكل بيدخل على الـsystem وبيشوف إنتا اش بتشتغل معاه، فـ أه فـلا فلازم كل شي تسويه bedside تجي على طول تنزله فالـsystem.

واستخدامكم للـsystem بأيت لغة؟

آآه بالإنجليزي، إنجليزي بحت فقط. باللغة الإنجليزية. هممم.

طيب، حارجع أسألك عن نفس تفاصيل الـhandover وهادي الأشياء

هممممم.

بس حاليا ابى اسألك، ماهي التحديات التي واجهتيها أثناء التواصل باللغة الإنجليزية؟ هل يمكنك إعطاء أمثلة للمهام التي كانت الأكثر صعوبة؟

والله المهام الأكثر صعوبة نحنا تدري هنا فالسعودية اللغة الإنجليزية ماهي اللغة الام، و آآآه أه إيوه وفي سنين الدراسة أممم ما كنا نسـ صراحة التعليم باللغة الإنجليزية ما كان التعليم الـ آآآه الـ البليغ يعني إنه خلاص يلا اتعلم، فكانت كلها basic أشياء مرة خفيفة، ففي فالسنيـ فسنين الـ الدراسة فالكليات والجامعات هي اللي بنستخدم اللغة الإنجليزية وبنتعلمها، فإنتي أصلا أول ما تـ بدأ يعني صراحة بالنسبالي أول ما بدأت شغل الـ تطبيق والكلام باللغة الإنجليزية هدا اللي بحد ذاته كان تحديات، كان تحديات، هدا واحد. تاني شي نحنا عندنا زي ما شفتي انتي الطاقم الـ آآآه الصحي هنا والطبي من مختلف الجنسيات فتختلف لكنات استخدام الإنجليزي فإنتا لازم أصلا يعني آآمم تركز كويس جدا عشان تعرف إنتا هدا اوكي بيتكلم إنجليزي بس اش بيقول، هدا اللي بحـ بحد ذاته تحدي فالـcommunication، تحديات هادي ، والحـ وفالـ آآآه أه الـemails والهادي.. الـwriting، الـwriting كمان كانت اكنت صراحة شوية جدا صعبة بدايةً بس الحمدلله مع الممارسة الحمدلله الأمور آآآه زانت وكويسة يعني تعتبر.

إش كانت تحسي أسهل حاجة عليكي سويتيها وانتي تستخدمي اللغة الإنجليزية أول ما بدأتي فالمستشفى؟

أول ما بدأت فالمستشفى الصراحة كـ آآآآه verbal يعني آآآه speaking كان أسهل، أسهل شوية لأنك تقدر تعبر، أه يعنييي اللي قدامك يعني الحمدلله حتى مختلف الجنسيات عارفين إنو نحنا دوبنا شوية لسه في الانجليزي فهوا يحاول أوكيه

بيساعدك يلا أتكلم إيوه اش تبى، فـ آآه نحاول نــ عبر، فالـspeaking كان الصراحة شوية آآآه أسهل يعني بالنسبة للــ آآه اللغة الإنجليزية.

ممكن تقوليلي قصة أو موقف كان استخدام اللغة الإنجليزية فيها وانتي تتكلمي مع اللي قدامك فيه صعوبة؟

اممم، والله لا يحضرني دحين، يعنيي في في آآه مواقف كتير أكيد حصلت معايا يعني أول ما جيت بس والله دحين ما يحضرني حاجة يعني معينة.

اوكي.

اممم.

من واقع خبرتك كطالبة سابقة وحاليا كشخص professional يشتغل فالمستشفى، اش تحسي كان لازم يركزوا عليه أكثر أثناء التعليم باللغة الإنجليزية؟

التعليم باللغة الإنجليزية الصراحة كان المفترض المفترض بما إنه يعنييي العالم دحين والــ والــ والــ والعصر كله يتطلب المفروض منذ الصغر، منذ الصغر، يعني ناس كتير في المدارس الـinternational زي ما بنشوف يعنييي آآآه بدؤوا باللغة الإنجليزية ماشاءالله يعني ما يوصل الــ آآه الطالب لعمـ لمنــ فـي لمنــ منتصف العشرات إلا وهوا ماشاءالله، يعني يوصل 13 12 سنة ماشاءالله تبارك الله اللغة الإنجليزية، اما نحنا كمدارس حكومية الــ الــ اللغة الإنجليزية مهممشة، مهمشة مهمشة جدا فـ في المدارس الحكومية، فلازم لازم يعنييي الصراحة يكون فيه آآآه ففـ في متابعة أكتر، فيه آآآه ... يعني ليش ما تكون... أنا من وجهة نظري يعني غير أه غير اللغة الإنجليزية نفسها يعني كتاب الإنجليزي فالمدرسة يكون فيه يعني مثلا مادة تانية تكون بالإنجليزي، كدا تمشي، كدا إيوه، لمن يكون مثلا فيه مواد تانية المادة نفسها تدرسها إنتا باللغة الإنجليزية زي ما كان فالــ فالجامعات، هيا مواد عايدية كلها بس بتكون باللغة الإنجليزية، ففي المدارس لو بدؤوا يطبقو الموضوع وكمان كان فيه من الــ آآآه الأستاذات يعني في المدارس يعنييي أه إنـ إنه يستخدمو اللغة الإنجليزية كـ آآه من جد لغة إنه يتطلب على الطالب إنه يتعلمها مو بس كتمشية حال إنه خلاص عدي في دي ويلا خلاص، والله حيتعلمو الأطفال يعني، بس إنه ما ما كان فيه تأسيس أصلا، ماكان فيه تأسيس، عشان نحنا كدا نحنا كمجتمع يصعب علينا الإنجليزي لما نكبر.

فالجامعة نفسها بالذات لما كنتي تتعلمي فالجامعة سواء الإنجليزية او حتى بعدين في موادك الطبية اللي كنتي تتعلميها بالانجليزي،

اممم.

هل تحسي اللي اتعلمتيه أعدّك مرة لدورك لما تبدئي العمل فالمستشفى؟

والله كـ آآآه دراسة ما كان يعنييي آآه صراحة إعداد تام، كدراسة يعنييي وســ ووو وssspeaking كدا يعني خلاص يلا آآه أعدّني إنو أقدر أتكلم واتواصل تواصل اجتماعي مع الناس ما كان إعداد تام صراحة، كان فالجامعات التركيز على المادة نفسها مو التركيز على انك تتكلم ولّا انك تقدر تتواصل باللغة نفسها، لأ، كان المادة نفسها، اوكيه فيه مادة انجليزي فالسـ فالــ فالــ اسـ الــ آآآه الـsemester الأول ناخدها وخلاص وانتهينا، عديتي فيها ان شاالله بمقبول خلاص كدا تعدي وتروحي السنين اللي بعدها، خلاص، والــ وكان التركيز على المواد، فنحنا كنا مجبرين نتعلم اللغة عشان نقدر نـ ننجح فالمواد، لكن يعدوكي كـ كـspea كـspeaking listening مدري إيش ماكان إعداد تام الصراحة، فإنتا لازم أصلا تجتهد وتشتغل على نفسك خارجي عشان تقدر تمشي، فكنت إيوه فكنت يعني اضطر إنـ يعنييي يقولو نصايح يقولو اتفرج أفلام آآه اسمع قصص سوي افعل اقرأ قصص تكون مثلا صفحة انجليزي وبعدها صفحة مترجمة بالعربي عشان تقدر تفهم، كدا، كدا نحنا يعنييي شخصيا قوينا نفسنا، أما إنه كإعداد من الكلية نفسها ما آآه مافي، إنتا لازم تشتغل على نفسك عشان تقدر إنتا بنفسك.

اش تحسي كان لازم يعطوكم إياه لما كنتو بتدرسو؟

واللهي آآآه كان كان المفترض إنه يكون فيه فترات أطول آآآه مثلا محادثات آآم اسستماعات إنه زي كدا يعني ناخد فترات أطول مع الـ آآه الـteachers والـ والناس هدو يعنييي ناس تتقن اللغة الإنجليزية عشان اللي قد عشان تخلي اللي قدامك يتـقنها. مثلا تخلي القـ قـ كيف انتا تنجبر أصلا انك تتكلم؟ لما تكون تـواجه مجتمع تكون في مكان لا ينطق إلا باللغة، تنجبر انك تتعلم عشان تخارج نفسك، فنحنا فالكلية اش اللي جبرنا أصلا انه نتعلم؟ عشان ننجح، عشان نعدي المواد هادي اللي باللغة الإنجليزية، فانتا مضطر تعرف اللغة الإنجليزية عشان تفهم المادة هادي اش بتقول، انتا مضطر لازم تتعلم، فكدا نحنا اتحدينا واتـ و ورحنا واتعلمنا عشان نقدر نعدي وننجح.

لما تقولي مثلا المحادثات كان نفسك تكون معاكم، محادثات زي ايش؟

يعني آه خلاص open conversation ..open، يعني انسان قاعد يجلس يتكلم معاك، لو نتكلم في حاجات زي كدا عادية آآم آآه خارج خارج نطاق الدراسة إنه مثلا يـ يكون يجي هدا الـ الـ الشخص يتكلم معاك بشكل أكبر حتى لو كانت يعني مثلا مادة محددة اسمها مثلا، يعني خلاص آه انوو يلا تحادث تخاطب مع بعض إنه يعلمك كيف تسـ تستخدم الكلمة كيف نـ الـ الكلام وتنفيذ الكلام والكتابة مو زي لما ندرسها، يلا هادي اللغة الإنجليزية هدا كتاب الإنجليزي هادي القاعدات المفروض هادي قاعدة if تستخدم الكلمات اللي كدا كدا كدا كدا، خلاص بكرة وآآه انتهى الـ آآه الدرس رحنا اختبرنا خلاص مشي، طب انتا اذا ماكنت بتستخدمها فحياتك اليومية عمرك ماحتمشي معاك، عمرك ما حتتذكرها بعدين.

أوكيه.

إيوه.

طيب يعني انتي لما تحسي انه كان المفروض يعلموكم على الكتابة وعلى هادي المحادثات العادية يعني المحادثات اللي تكون بين الأشخاص العادية، هل تحسي انها مهمة فالمستشفى؟

مهمة جدا، مهمة جدا لأنه انتا الناس اللي بتشتغل معاهم لازم يكون بينكم communication قوي عشان انتو تقدرو تصيرو.. اش العمل؟ العمل هوا team، لما تكونو team work عملكم يمشي، لكن لما تكون تشتغل لحالك عملك ما يمشي. العمل هوا team work والـteam work هدا كيف يفهم بعضه وكيف يكون بيشتغل مع بعضه؟ لما يكون فيه good communication. انا اجي ابغى أه أنا اجي ابى اشتغل معاك وابى افهمك اني انا ابى اشتغل معاك وافهمك انا واقفة معاك، انا اذا ما كنت اقدر اوصلك الجملة اقدر اوصلك الكلام اعبر لك عن اللي اللي داخلي بصفة بشكل كـ مز يعني كويس كدا انتا ما حتفهمني، لازم اللي قدامك يكون فاهمك كويس عشان انتا تقدر آآآه تشتغل معاه كويس، وانتا ما حتفضل ساكت ساكت ساكت حيقولو والله هدا ساكت أصلا ما يبى يشتغل معانا، فلازم انتا توصلّه الشي اللي عندك، انا ابى اشتغل معاك انا ابى ابى أكون معاك ابى مدري ايش لازم نكون.. وبعض الاحيان كمان الـ الـ الـ النقاشات الكلام الهادي تـ تقوي العلاقات فالعمل، تقوي العلاقات فالعمل، يعني بعيدا عن العلاقات الشـ خصية بتقوي العلاقات فالعمل، خلاص هدا كويس والله ماشالله، هدا يتقوى.. حتى اه كـ انا يعنيي فـ position دحين رئيسة، لمن اجلس انا أتكلم مع الـstaff اخد واعطي معاهم مدري ايه الاقي فيه راحة فالعمل فيه قابلية فالعمل، مديري مقدرني، مديري والله مو مو شايف نفسه عليا ما يبى يكلمني، مديري بيجي بينتبه عليا بيسألني كيف حالي بيجلس يتـ آآه يتناقش معايا بيسألني عن عن نفسي بـ يعطيني مثلا عندي مشكلة لما اتناقش مع مديري مديري بـ بيعطيني حلول مديري بيسمع لي مدير.. طيب لما يكون مافي أصلا لغة تواصل بينكم انتو الاتنين لغة فـ مفهومة تـ تمام كاملة ما حيكون فيه.. صلة كدا في العمل.

بالنسبة للـhandovers أبى أعرف عادةً فالـshift الواحد كم nurse يكونو موجودين؟

على حسب المرضى وعلى حسب عندك كم، يعني زي انا عندي كـ آآه hematology الـ آآآه الـ الـ عندي 20 سرير فالعشرين هادي عشان أصلا آآآه single bed عندي فكل غرفة فـ آآآه 16 مريض إذا عندي full capacity ، full القسم كله 16 full مريض، المفروض hematology 1 to 3، يعني من واحد لتلاتة يستلم الممرض ما يستلم أكتر، فهنا عندي تحت فالقسم head nurse وcharge nurse ومعاهم ومعاه يكونو أربعة nurse، يعني انا عنـ عندي staff يكونو خمسة واتنين PCT، PCT هدولا الـ...

اش الفرق بين الـhead nurse والـcharge nurse والـPCT؟

الـhead nurse انا خلاص مسؤولة عن كل حاجة فالقسم، كل شي فالقسم تحتي، القسم كله كامل يكون تحتي، الـ charge nurse مسؤولة عن الـshift نفسه، عندي charge nurse فالـday shift عندي charge nurse فالـnight shift. الـcharge nurse يكون مسؤولة عن الـshift مسؤولة عن الـnursing فقط، مسؤولة عن التمريض، فيه أي situation سار ما قدرت تحلو الـcharge nurse يرجعلي حتى فوقت الـnight، يرجعلي يكلمني انا احل الموضوع ازا كان فيه حاجة، انا أكون مسؤولة عن الـ آآآه الـstaff حضورهم وغيابهم مدري كلو انا أكون مسؤولة عنه، هدا بس يمنّج الـshift نفسه ويكـ ويكون فيه تواصل بين الدكتور والـ آه والـcharge nurse، يعني الـ آه الـnurse الـbedside لمن يكون عنده شي يبلغ الـcharge، الـcharge نفسه هوا يتواصل مع الدكاترة، زي الـleader فالـ فالـshift، إيوه هدا هو الـ charge nurse. أما بالنسبة للـPCT، الـPCT هدول آآآه زي الـfirst aid يعني آآممم مساعدين، مسـ الـ الـ التمريض المساعد، يكونو مساندين فقط في الـshift، هما يرتبو الـstore، هما آآه ينزلو المرضى للـ آآآه أشعات إ آآه إزا في أيي أي procedure حاجات زي كدا ما تحتاج endorsement هما بس هما ينزلو المرضى لها، أمممم لما يكون فيه bedmaking فنفس الـshift هما مسؤولين يسووه. زي كدا.

يعني ايه PCT؟

آآآممم الـPCT أه والله ناسية اسم المصطلح بالزبط، آآه هوا هدا الـPCT اه اختصار، اختصار ليبي صـ مصطلح كلمة، خلي بس اشوف آآه اشوف الـ الكلمة بالضبط اش هيا وارسلك ان شاءالله واتساب.

بما انك اتكلمتي عن الاختصارات، لاحظت انه الاختصارات تستخدم عندكم كتير.

ايوه بشكل كبير. هممم.

هده الاختصارات كنتو متعلمينها اثناء الجامعة ولا اتعلمتوها فالمستشفى؟

فيه أشياء اتعلمناها اثناء الجامعة زي اختصار الـ آآه الأدوية إزا الـ الأدوية وقت اسـ وقت وقت آآه أخد الادوية وقت مدري ايش زي كدا، هادي فيه أشياء اتعلمناها خلال الدراسة في الـ آه فالجامعات، وفيه أشياء كتير اختصارات كتير هادي خلال الـ آآه العمل اتعلمناها، خلاص انا اشوف مثلا اختصار اللي قبلي خلاص بيستخدموه اول ما جيت اشتغلت اشوف اختصار اسأل هدا اختصار كلمة ايش؟ يقولولي هدا اختصار كلمة كدا كدا كدا كدا. آآآه اشوف برضو حاجة تانية اسأل أه هدا اختصار كلمة ايش؟ برضو يقولولي وهكزا. يعني زي مثلا for you for for your infor oh aah information يعني لمن اجي ابى اكتبها بس اكتب F ahhh YI اكتب كدا، أول ما أي مين يشوف خلاص يشوف الـ آآه الحروف هادي التلاتة يعرف إنه أأه هادي الكلمة معناها كدا for your information، وآآه كلمات تانية مرة كتير بنستخدم فيها اختصارات.

طيب.

إيوه، بس بعض الأحيان اتلخبط.

لما تجيكم هادي الاختصارات اللي تكون مرة جديدة عليكم كيف تعرفوها؟

لما اشوف الاختصار اول مرة انا اسأل اللي جـ .. يعني دائما اختصار يجي فإيميل، اختصار يجي فييي handover، طيب انتا ياللي قاعد تسلمني انتا مجهز الـhandover هادي فشفتك، فـ إش هدا الاختصار؟ زي كدا، يعني انا كـ nurse bedside أيام ما كنت bedside اشوف اختصار اجي اسألهم اش هدا الاختصار؟ يقولولي هدا معناته كدا كدا كدا، اللي كتبه يجي يقولكم، هوا عارفه ومستخدم الـ اختصار بس انه آآه اش اسمو دااا انا ما اكـ ما اكون عارفته يعني، فـ أه لمن يمر عليا اول مرة يقولي هدا معناته كدا كدا كدا، بس.

يعني الاختصارات تكون مثلا في instruction عادية ولا تكون كمان فأشياء طبية؟

فأشياء طبية كتير فيها آآآه اختصارات، بس الأشياء الطبية هادي اكترها اكترها أصلا بتكون آآه مو من عندنا يعني مو نحنا جايبينها انه الاختصار دا يلا خلاص هادي الكـ هادي الـ هادي الجملة اختصارها كدا، لأ هادي تكون أصلا في الكتب في الاشياء دي مستخدمة.

هممممم.

امممهممم.

الـhandover نفسها لما انتو بتعملوها،

هممم.

كيف تعرفو اش الأشياء اللي لازم تدخل فالـhandover؟

خلاص آآآآه مع الـ آآه أه الـ الـ الخبرة، مع الخبرة والتعليم، يعني الـcharge nurse لمن نجي نبى ندرب charge nurse على آآه على آآه اش اسموو على الـposition نفسه خلاص انا من البداية اجلس آه آآه اجي أسلّمك endorsement، هدا المريض مثلا اشتغلنا معاه آآه مـ من بداية الـshift من سبعة لسبعة سار كدا وكدا وكدا وكدا وكدا مع المريـ مع المـ الممرض سوا كدا للمريض صح؟ الممرض طبعا آآه بيجي، انا انا كـcharge nurse خلاص الـ الـshift بيخلص الساعة 7، الساعة 5 استلم ممرض ممرض اسأله عن مرضاه، يلا المريض الفلاني اش سويت معاه؟ سويت معاه كدا وكدا وكدا وكدا وكدا وكدا وكدا وكدا، انا عارفة هدا الشي المفروض أضمنه فالـ فالـhandover، يعني مثلا عملّه bedmaking، هادي bedmaking معروفة انها حتتعمل بس هادي تتسلم verbal، ما نكتب انها اتعملت، أي تحليل اتعمل نكتبه ونكتب done عشان آآه هادي معلومات خـ آآآه يعني important انها تتعرف عشان اللي بعدي يشيّك عليها، أشياء طبية سويناها الأدوية خلاص مثلا موجودة فالـsystem وموقّع.

هممم يعني..

يحتاج أقول هادي.

يعني الإجراءات الطبية تكون موجودة فالورقة نفسها فالـhandover.

زي سحبنا تحليل، ايوه، سحبنا تحليل رسلنا الـblood culture المريض آآه مثلا بياخد chemotherapy، الأشياء المهمة اللي احتاج الممرض اللي حيستلم يركز عليها فشفته هادي أحتاج أخبر آآآه الـ آآه أه أحتاج أخبر الـcharge والـcharge يحتاج يكتبها يدونها فالـ فالـhandover.

لاحظت انه بيسير قروب handover يعني تكون فيه charge nurse مع كم شخص ولاحظت انو تصير individual يعني واحد لواحد. اش تفرق هادي؟

ايوه، آآآه اللي بتسير group هادي آآآه انا آآه head nurse وcharge nurse الليل وcharge nurse الصباح مع الـhead nurse assistant، نحنا نستلم سوا، خلاص الـ الـ الـcharge nurse حيجي يسلمنا القسم كامل من A to Z، اش اللي صار بالنسبة للمرضى واش اللي صار فالقسم واش اللي صار مثلا مع الـ آه الـnurses اذا في أي situation فيه code blue فيه RRT فيه فيه حاجة حصلت في القسم يقولّي فيه أي مشكلة سارت يبلغنا فيه أي شي، هادي هيا. فنحنا نكون فقروب عشان والله و آآه بيسلم، XXXXX، انا لازم head nurse استلم القسم اش اللي سار فيه بالضبط في الـnight عشان اعرف انا فقسمي اش صار، الـcharge nurse حقت الـ آه الـshift نفسه إنه مثلا الـday shift لازم يستلم كامل عشان اذا احد جا سأله يكون عارف، أه هوا charge nurse مسؤول عن الـshift يكون عارف اش الي سار

بالتفصيل في أي situation كانت قبل ما يستلم، آآه الـــ head nurse assistant اذا كان موجود فيكون يستلم معايا عشان خلاص حتى هوا وجوده زي وجود الـhead nursinge. أما بالنسبة للـone to one individual aaah هادي بتصير آآآه أممم الممرض اللي ماسك المريض فالليل يسلم الممرض اللي بيمسك فالنهار، يسلمه، يسلمه تسليم كامل، ازا الممرض والله ما استلم كامل قيد الـcharge nurse استلم فيقوله ترا المريض حقك كان كدا المريض حقك فيلو كدا، زي كدا، فهادي الفائدة من استلام الـــ الاستلام الـــ آه المتكرر.

يعني ايه RRT؟

RRT اللي هوا rapid response team، لمن يكون فيه آآه pa آآه مريض يحتاج آآه آآمم رعاية أو آآه مبدئية response team.. خلا أه rapid response team ، هادي اذا كان المريض مثلا tachycardia المريض كان bradycardia المريض كان hypotensive المريض كان hypertension، هادي الأشياء يعنيي الأشياء اللي can can be managed نقدر نديرها، نقدر نديرها فالقسم، فننادي هدا الـــ آآه الـteam، يجينا في القسم يجو يـ يشوفوه آآه يكون فيه معاهم آآه الـ آممم الـ يكون معاهم دكتورة من الـ آآه العناية يكون معاهم آآآآه اش اسمو آآه RRT اللي هما آآه حقين الرعاية التنفسية يكونو موجودين معاه يكون موجود آآآه تمريض كلهم يجو سوا، بعد كدا آآآه كلهم يجو سوا يعملو الـــ آآآه الـــ يمنّجو يعني الحالة كلها فالقسم تكون.

ماهي الاقتراحات التي تودين تقديمها لتحسين ..

إيوه.

جودة ودور مناهج اللغة الإنجليزية لطلاب الطب لجعلها اكثر فعالية وملائمة لاحتياجاتهم المهنية عند دخول مكان عملي طبي مثل مستشفى فالسعودية؟

واللهي آآآه أتمنى الصراحة هوا اوكيه الـــ المواد ووالاستخدام كله بيكون باللغة الإنجليزية بس أتمنى التركيز التركيز على الـــ آآآه الـــ لغة التخاطب، التخاطب يعني يركزو عليها اكتر مما انهم بيركزو على المواد عديت المادة ولا ما عديت. فقط ايوه.. وبس.

اش فيه حاجة تحسي انك اتعلمتيها من المستشفى ما كنتي تعرفيها قبل كدا؟

من أي ناحية؟ الناحية الإنجليزية؟

إيوه.

أه من الناحية الإنجليزية الصراحة الـ العمل والـ آآآه والـ والتواصل مع الـ الناس من جد الـnon Saudi آآخ خلت فيني الطابع الـ الثقة بالنفس، يعني انتا لو كنت مثلا زمان اعرف أتكلم انجليزي بس انه مثلا مو مرة او انه نعـ اعرف أتكلم انجليزي اخجل من اني أقول أخاف يطلع غلط، لأ، آآآه رسمو فيني طابع الثقة بالنفس، آه اتكلمي لو غلط أهم شي وصّلي للي قدامك، وان يوم غلطتي عادي اللي قدامك حيقولك مثلا أها قصدك كدا كدا كدا كدا فتتعلمي، مع الوقت تتعلمي، فاآا فالثـ الثقة بالنفس الصراحة آآآه بـــ يعنييي أه اكتسبتها فـ من الـــ آآه الـــ محادثة ووجودي ففف أه في بيئة العمل هادي.

نبدأ؟

اتفضلي يافندم.

ما هو دور اللغة الإنجليزية في مكان عمل الكادر الطبي في السعودية؟ إلى أي مدى هو مهم في نجاح حياتهم المهنية؟

آآه هل فيه آآه خيارات ولا انا اجاوب إجابة مفتوحة؟

مفتوحة يا دكتور.

تمام آآآه واللهي دور اللغة الإنجليزية دور أساسي طبعاً ما في آآه غنى عنه آآه التواصل آآه ما بين الكادر الطبي كاملاً سواء أطباء أو تمريض أو آآبـ آآه مساعدين آآه بيكون باللغة الإنجليزية فالمقام الأول.

إلى أي مدى هو مهم في نجاح حياتهم المهنية؟

آآه هو مهم جدا طبعا آآه أه لا غنى عنه زي ما قلت لحضرتك، آآم يعني آآه آآه ضروري جدا ما مم وتقريبا ما ينفعش ممارسة الطب آآه فـ فالسعودية بدون آآه الإلمام باللغة الإنجليزية كاملة.

متى تستخدم اللغة الإنجليزية ولماذا؟

فالممارسة الطبية تقصدي؟

ايوه فالمستشفى.

تمام، آآه تستخدم فـ طوال الوقت يعني آآه ما مابين الـ آآه كادر الطبي الأطباء والتمريض آآه في آآه آآه متابعة الـ آآه المرضى في آآه إعطاء الـ آآآه القرارات الطبية في آآه يعنيي آآآه آآه كل شيء يـ يخص الممارسة الطبية تقريبا طوال الوقت.

ماهي التحديات التي واجهتها اثناء التواصل باللغة الانجليزية؟

آآه طيب اكيد في بداية الـ آآه ممارسة الـــ آآه الـ يعـني يعني آآه مهنة الطب آآه كان الـ آه تحديات في آآه آآه اختلاف الـ آآه الجنسيات وبالتالي آآه اختلاف الـ آآه اللهجات يعني آه ممكن تكون آآه تستخدم اللغة الانجليزية ما مابين الكادر الطبي لكن اختلاف اللهجة مابين آآم آآه العرب و الـ آه وغيرهم آآمم بـ بيخلي فيه آآآه صعوبة تواصل في بداية الـــ أمر إلى أن آه اعتدنا على الامر يعني، يعني خاصة آه زي الـ آآه الـ XXXX او غيرهم بيكون فهم اللغة الإنجليزية منهم آآه فيه صعوبة شوية فالبداية لكن بعدين مع الـ آآم الـ آآه التعود آآه بيكون الامر اسهل يعني.

فالتواصل باللغة الإنجليزية لما تتكلم مع اللي حوليك، اش كان اسهل حاجة تسويها معاهم بالانجليزي؟

أسهل شيء؟

هممم.

آآم آآه أكيد الـ آآه الـ المصطلحات الطبية، آآه يمكن المصطلحات الطبية احنا معتادين عليها من آآه من وقت ما كنا طلبة فـ آآه الأمر سـ آآه يعني فيه سهولة بالنسبالنا ان احنا دراستنا أساسا باللغة الإنجليزية فـ آآمم المصطلحات الطبية بالنسبالنا ما فيهاش مشكلة يعني ان كان الـ آآه الـ آه شيء الأصعب هو الـ آآه الـــ كلمات الأخرى غير الطبية يمكن هيا اللي نحنا آمم خاصة من اللهـ ماللهجات المختلفة زي ما قلت لحضرتك هيا اللي كان فيها صعوبة تواصل لكن المصطلح الطبي مافيهوش صعوبة يعني اكيد هوا اسهل شيء.

لاحظت انكم بتستخدمو كثير الـabbreviations فالـdepartment، هل كنتو عارفينها من قبل ولا كان فيه منها جديد عليكم فالـdepartment نفسه؟

طيب الـ آآه abbreviations اللي هيا ليها علاقة بالـ آآه بالـ آآه الـ تشخيص المرض او آآه العلاج آآه دي أغلبها يعني تسعين فيا منها تسعين فالمية منها معروف من قبل، آآه لكن في abbreviations بتخص آآآه الـ آآمم يعني مصطلحات غير طبية هيا دي اللي كان في بعضها كان آآآه جديد علينا فالـ آآه مثلا فالـ مستشفى الـــ XXX ومن قبلها انا كنت باعمل في مستشفى

آخر XX آآه برضو كان بالنسبالي في في منها مصطلحات جديدة عليا آآآه دي غير طبية تمام؟ هيا دي اللي آه تعتبر آآه تـ يعني آه تعرفنا عليها آآه جديد يعني، لكن الـ آآه المصطلحات الطبية الـabbreviations الطبية غالبيتها معروفة يعني، يعني هيا موجودة فدراستنا كلها يعني.

أعطيني مثال للـabbreviations غير الطبية؟

تمام يعني مثلا آآه say مثلا ASAP مثلا، ASAP تمام؟ as soon as possible، آآه مثلا دي انا آآه عن نفسي يعني انا تعرفت عليها من من ست سنوات قبلها ما كنت اعرفها تمام؟ آآه في مثلا آآه آآه ايه تاني؟ آآه FYI for your information تمام؟ برضو يعني اتعرفت عليها برضو تقريبا ست سنوات او سبع سنوات، آآآه يمكن دي اللي غير طبية اللي انا فاكرها حاليا لكن آآه غالبية المصطلحات الطبية بتكون معروفة.

لما تواجهكم مصطلحات زي كدا جديدة عليكم كيف تتعرف عليها وتتعلمها؟

بالممارسة يعني أكيد الـ آآه انتا لما بتسمع مصطلح اول مرة ممكن ماتكونش عارفه من اول مرة بتبدا تـ آآه تسيرش عليه سواء قوقل او غيره بتبدأ تعرفه، آآه آه خلاص بتعتاد عليه انتا بتمارسه بتبدأ تتكلم بيه عشان ما تنساهوش، فـ آآه دي يعني أكتر شيء يعني الواحد بيتعلم منه، آآه انا في في مصطلحات كتير آآه تعرفت عليها من آآم عن طريق مثلا آآم آآه فيديوهات آه تعلم لغة انجليزية فبدايات تعلمي آآم من آآه أمم تـ يعني آآآه English teachers مثلا تعلمت منهم، آآه في برضو حاجات منها بنعرفها من الدراسة.

هل يمكن ان تخبرني بقصة او موقف كان فيها استخدام اللغة الإنجليزية فالمحادثة يشكل صعوبة؟

طيب هواا يمكن موقف محرج بالنسبة ليا شوية هههه في آآه بدايات آآآه شغلي فالسعودية كنت آآه باشتغل في آآه private section مستشفى آآآه خاص فـ آآه آه كنت لسه أول شهر أو آآه شيء فالـ فـ فعملي فالسعودية فكنت باتعامل مع جنسية أخرى غير عربية، آآه كانو اعتقد من الـ آآه staff nurses او كدا، آآه مم اعتقد XXX انا مش فاكر بس يعني آآآه هيا كان كلامها بالـــ English بالنسبالي انا ما كانش مفهوم، لهجتها بالنسبالي كانت صعبة انا ما كنتش مستوعبها، فـ آآآه خدت وقت لما استوعبت الـ آآه الـ آآه الكلام اللي هيا بتقولو واحتجت مساعدة من حد من الزملا يـ يـ يوصلي المعنى يعني الـ كلام آآه بلهجة اقرب ليا يعني حد عربي، فـ آآه سمع منها ووصّلي الـ آآه الكلام، فكان موقف محرج بالنسبالي فالبداية، فبعدين انا عـ يعني خدت آآه آآه عـعهد على نفسي ان انا أحاول اتعلم English بشكل أحسن، آآه آآه سمعت آآه آآآه videos كتير لتعليم الـ English مع آآه English teachers آه يعني ممعروفين تعلمت منهم بعدين بدأت آآه أمارس آآه تحسنت مع الوقت كتير الحمدلله رب العالمين، فدا كان موقف من المواقف اللي انا كان في صعوبة بالنسبالي في بداية الـ فالـ آآه العمل فالمجال الطبي فالسعودية انّ كان الـ آآه جنسية أخرى غير عربية لهجتها غير معتادة بالنسبة ليا اطلاقا آآه فهم الـــ الـ آآه لهجة دي كان صعب جدا بالنسبالي.

من واقع خبرتك كطالب سابق وطبيب حالي، ما الذي تعتقد انه كان يجب التأكيد عليه اكثر اثناء التعليم باللغة الإنجليزية؟ هل تشعر ان ما تعلمته أعدك جيدا لأداء دورك كطبيب من خلال اللغة الإنجليزية؟

تمام، هوا اعدني جيدا من ناحية المصطلحات الطبية فقط ،لكن آآه بعيدا عن المصطلحات الطبية آه لأ، طبعا كان إعداد فيه قصور شديد، آآآمم انا من ضمن المواقف برضو اللي حاب آآه احكيها لحضرتك ان انا شفت آآه آآه يعني آآه أحد الـــ consultants الـ آآه كنت بد يعنيي حد من الـ آآه من اللي انا اتعلمت منهم كتير، فكان آآه جالسين فجلسة بنتكلم معه وبنتناقش معه فالـ آآه فالـ آآه فالحالات فكان شوية الكلام شوية منو عربي شوية منو English، يعني ما كان ماشي English باستمرار ولا عربي باستمرار، فهو كان ليه وقفة يعني، الوقفة دي كنت أتمنى تكون من كل الـteachers الباقيين تكون نفس الوقفة اللي هوا لا إما انتا تـ تشرح الكلام from A to Z in English يا اما in Arabic، لكن ما ينفعش الـ مشكلين ، فدا يمكن الـ آآآه التعود لـ يعنيي آه من ضمن العادات الـ سيئة فـ فـ فبعض الـ الأمكان اللي اشتغلت فيها ان كان آآه شوية عربي شوية English مافيش ولا على طول English ولا على طول عربي يعني، فدا من ضمن الـ الـ آآه الـdrawbacks الا بتـ خلي الواحد فعلا آآه بيتأخر جدا فإن هوا يـ آآه يتعلم، فـ آآآه آآه اعتقد ان دا آه دا الـ الـpath way الصحيح ان آه since آآه آآه يعني آآه آآه فترة الـ الـ آآه دراسة انتا آه المفروض يكون آآه كاملا الدراسة كاملة بالعربي، آآم الشرح الـ آآه من الـ من الـteachers ليك آه يكون in Arabic كاملا، آه sorry in English كاملا، آآه وانتا آه

الـdiscussion بتاعتك معاهم او مع آآه زملاءك يكون in English كاملا، فـ آآم اعتقد هيـ هيخلي الأمور احسن بكتير واسهل بكتير في ما بعد.

اش تحس لازم يضيفوه للمناهج لما يعلمو طلبة الطب باللغة الإنجليزية فالتواصل مع اللي حولينهم او شي يضيفوه للمنهج بصفة عامة؟

هوا المنهج اللي مكتوب فالكتب مش محتاج إضافة، الـ ممارسة هيا اللي محتاجة إضافة، الـ آآه يعني آآه زي ما قلت لحضرتك ان يكون الـ آآه الـ آآآه الـteacher اللي بيعلم او الـ آآم آآه lecturer بـ اللي بيشرح كاملا آآه in English from A to Z aah with discussion with the aah students in English from A to Z ما بيـ أمم آآه ما بين الـstudents نفسهم يكون discussion كله in English، دا حيـ سهل كتير لـ آآه فيما بعد انتا لما تكون في session آآه حيسهل آآه آآه شغلك كتير هيسهل ان انتا تقدر تشتغل فأي مكان فالعالم بدون ما يكون عندك أي خوف او قلق، آآه اعتقد ان هوا من أيـ من وقت الـ college لازم يكون آآه in English كاملا from A to Z يعني.

ماهي الاقتراحات التي تود تقديمها لتحسين مناهج اللغة الإنجليزية الطبية لطلاب الطب عشان تخليها اكثر فاعلية وملاءمة لاحتياجاتهم المهنية لما يدخلو مكان عمل طبي زي مستشفى فالسعودية؟

الـ آآم مقترحات آآه ايوه، آآآه واللهي انا زي ما قلت لحضرتك ان انا آآه انا مش شايف ان في مشكلة فالـ آآه فالمناهج بقدر ماهيا مشكلة فالممارسة يعني، فـ آآه المقترحات ان أه انن الـ آآه ممارسة آآه بالـEnglish تتفعل اكتر من كدا، يكون في تفعيل ليها بشكل كـ آآه كبير، بيكون فيه تأهيل حتى للـ آآه lecturers نفسهم، ممكن مثلا آآه يكون فيه آآه إلزام للـ آآه للـ آه lecturer نفسه انه يكون واخد آآه grade كويسة فالـ آه IELTS مثلا او آآه او حاجة زي الـ آآه TOEFL او الـ OET الـ آآه الـــ programs المشهورة فالـ فالـ آآه فالـEnglish lan ah language، آآه الـ lecturers نفسه اعتقد انه هوا لازم يكون عنده at least IELTS مثلا score آه آآه six ولا six point five، آآه أو TOEFL اوو شيء من الحاجات اللي هيا آآه معروفة، الـ آآه يمكن الـstudents صعب ان آآه نفرض عليهم حاجة زي كدا لكن at least آآآه حاجة زي الـOET مثلا اللي هيا الـــ مصطلحات الطبية يكون تكون آآه تفرض عليهم يعني حتى فالـــ آآه فالسنوات الأخيرة مثلا أو سنة الامتياز او حاجة زي كدا، آآه اعتقد دا ممكن يكون مقترح الله اعلم بيه.

الـmeetings الاسبوعية اللي كانت تنعقد عندكم فالقسم هيا endorsement meetings صحيح؟

صحيح، اصل في two meetings، الـ انتي كنتي هتحضري الـ آآه الخميس اللي هوا الـendorsement meeting صح؟

ايوه، الخميس والثلوث..

أه هوا فيه .. ايوه.

انا قد حضرت معاكم ثلاثاء وخميس.

اه هوا الثلاثاء فالمفروض انو هوا tumor board يعني discussion للـ آآه، هوا حاليا اتغير الوضع شوية يمكن الثلاثاء بقت discussion للـ آآه للـconflicting cases اكتر يعني، لكن الـ آآه الخميس هوا الـ آآه يعني زي handover، weekly ah endorsement أو weekly handover.

اش الفرق بين الـtwo meetings؟ لو تشرحلي الـboard meeting اش كانت الأشياء اللي مهم تنذكر فيه ووتناقش،

هممممم.

وفي الـendorsement ايش الشي مهم؟

طيب الـ آآه الـboard meeting اللي هوا بتاع يوم الثلاثاء ده، هوا حاليا يعني الـ آآم الـform بتاعو اتغير شوية عن عن الـ فترة اللي حضرتك كنتي بتحضريها معانا، حاليا هوا بـ يعني آه احنا بنـ discuss فيه الـ آه الـ conflicting cases اللي هيا محتاجة آآه آآه H multidisciplinary aah aah meetingأه بتحتاج اكتر منن specialty آآه discussing الـ حالات دي ان احنا ناخد فيها decision تمام؟ آآآه فدا دا الـ آآه ثلاثاء حاليا احنا ما بنعرضش فيه الحالات كاملا، يعني مثلا عندنا say twenty cases ما بنعرضش twenty cases، لا احنا بنعرض آآه two or three or four cases اللي هما فيهم آآه conflict، فيهم آآه اكتر من رأي نحتاج ناخد فيهم اكتر من oh من آآه opinion يعني الى ان نوصل للـ آه final decision فيهم، آآه دا بالنسبة ليوم الثلاثاء. بالنسبة للخميس دا weekly aah handover للـــ weekend آآه لان بيكون فيه الـFriday والـ آآه والـSaturday بيكون بس آآه آآه one consultant وone aaah assistant على الـ على الـservice، فاحنا endorsing الحالات كلها الـ الـ فالـ تبعنا فالـhematology للـ آآه للـconsultant والـ آآآه والـassistant اللي على الـweekend عشان مم بنبلغهم بس ايه الـ need to be followed over the week يعني، كل آآه كل الـpatient دا محتاج to follow aah one two three ودا آآآه الـother patient كزا، فدا endorsement كل الـ حالات اللي فالقسم يعني.

عادة المعلومات اللي بتستخدموها فالـmeetings سواء فالـtumor board او الـendorsement من فين تجمعوها؟

طيب آآآه طبعا المرضى دول بيكونو غالبيتهم inpatient تمام؟ آآآه في آآآه بيكون في assistant وفي consultant آآه هما r ah responsible عن الحالات دي، آآه daily rounds عليهم، آآآه تكون عارف آآه full details عن الـ patient aah aah history examination, laboratory investigation كلها كاملة radiology ، آه الـــ management plan, everything يعني من الـ الـ primary physician بتاعو يعني تمام؟ فدا مم آآه الـendorsement بيكون بناء على الـ الـdata اللي عند الـprimary physician واللي عند الـ الـ آآه الـ primary assistant اللي بيمرو عليه.

عادة لما بتتجمعو فالـtumor meeting قلتلي بتطرحو الآراء فالـcases until you reach a decision.

همم همم.

طيب اخر سؤال ههه.

اتفضلي.

ما الذي تعلمته من العمل فالمستشفى والذي لم تكن تعلمه من قبل؟ وكيف علمت ذلك؟

تمام، آآآآه طيب آآه فـ تحديدا XXX صح كدا؟

ممكن او فأي مستشفى سابقة كله ينفع.

تمام طيب هوا ...

الأفضل XX.

طيب آآه أكيد في حاجات كتير اتعلمتها بس يمكن آآآه ابرز حاجات يعنيي آآه هوا اول حاجة الـ الـ infection control protocols تمام؟ فـ آآآآه في XXX صراحة يعني آآآه you are very strict to the infection control protocols صراحة يعني ده حاجة آآه انا أمم اتعلمتها منهم و آآه وان شاءالله تعالى لن افقدها فيما بعد يعني آآه افضل تتكي عليها آآآه طول حياتي. دي اول حاجة آآآه يعني آآه اتعلمتها من XXX. تاني حاجة الـ آآه آآآه انا مم آه كـ بحكم شغلي انا hematologist آآآه الأماكن اللي اشتغلت فيها سابقا كنت باشتغل فيها آآمم benign وhematology malignant، لكن

آمم أه ما عمري اشتغلت فـtransplant service تمام؟ يعني آآه الـ experience بالنسبالي فالـtransplant service قبل XX زيرو، فيما عدا الدراسة فقط يعني كان لكن آآه كـpractic آآه كـpractice كانت زيرو بالنسبة للـtransplant، في آآه XX عنــ عندنا في autologous transplant service، انا اتعلمت فيهاالـautologous transplant service وي الحمدلله كان آآه شاركت فحوالي آآه three or four cases auto transplant، يمكن لسه باقي الـ allogenic transplant أه مم ماهو موجود XX للأسف، فـ آآه دي برضو من الحاجات اللي اتعلمتها فـXX الـ autologous transplant.

اوكيه.

يمكن هيا كا آآه يعني ابرز حاجات يعني بالنسبالي.

Appendix 2 Observation protocol/sample

Goal of the observation: Observe the English communication that takes place between the nursing staff.

Date/Time: Tuesday, 28-12-2021 from 7:15 till 9:20 A.M.

Participants present: Five.

Setting: the nursing station at the haematology and oncology ward.

Description	Reflection and questions
Description of the observation A. Setting: Same NS. B. Participants: CH (SFN XX) FFN (XX) SFN IMN. FMN C. Interactions: The NS at the beginning of the shift is hectic as many handovers take place at the same time. CN to FFN {What you need يا اختي >my sister>?}. Then a SFN asked the CH {SDP is abbreviation for what?}. They looked at other papers to figure it out. The staff discuses with each other that they have one problematic patient that refuses most of the nurses. FFN {ابا قلم >I need a pen>} FMN {مافي >none is there/no> I don't have. بس واحد >only one>}.	- In the station, the nurses use the computers and the physical patient files to update the papers in them. - Today, it took more than one hour to get the consent of a nurse as they are very busy. - While doing the endorsements at the beginning of the shift, two Egyptian nurses were doing it in Arabic, only using medical terminologies, but all the explanation was done in Arabic. - Before I attended the morning endorsement, I was waiting in the nursing station. The staff from the previous shift were talking with each other telling each other stories about their shift. An IMN told them that a female patient did not want him to come back a do her tests and she told him bye. He was laughing about it while telling the story. - As the staff is large and they have different shifts, I keep reintroducing myself to them to help get participants. - Endorsements take place even between the doctors and the nurses. - Their work on the computer is in English. The staff comes in quietly and work on the computers.

CN {خذي >take this>} and she gave her one. There was a moment where the nurses where talking and one responded {InshAllah}. CN asked FFN {where did you go on the weekend}. FFN {***}. (This is a city in Saudi Arabia. She did not expand more). The nurses use the computers most of the time. Then, there is silence as the staff scatter and only 4 remain in the station. The remining staff talked about a specific patient, there were shocked and sad that the patient relapsed. They continued to work on the computers. Then a doctor came and did an endorsement with a nurse and told her instruction about what should be done next with the patient. The nurse asked him questions about who should do some of the procedures. One nurse (**) asked on the phone about a missing patient test. She kept explaining {I asked him probably but still no response}	- They use humour with each other and for enquiring about a specific patient. - They use Arabic as well for humour and personal requests. - Why do they constantly use the computers? Is it only to update medical records or something else? - It would be better to limit the nursing station observation to one station. Probably better for seeing the communication interaction patterns. - Saudi nurses were discussing their shift issues in Arabic. - The number of people in the station increases and decreases through the day. - Whenever there is any instruction for the patients, English is used. - Are they updating paper files as well? -

Appendix 3: Consent form

Participants consent form.

This is a project taking place at the University of Reading. The research project is about the professional communication that takes place in a Saudi hospital where English (as a foreign language) is used in communication between medical professionals. If you have any questions about this project, please contact the researchers (below).

Your data will be kept confidential and securely stored, with only an anonymous number identifying it. All information collected for the project will be destroyed after a period of 3 years from the completion of the project has elapsed. Taking part in this study is completely voluntary; you may withdraw at any time, even when you're part way through, without having to give any reason. After reading and considering this form, your continued participation indicates you have given informed consent. This application has been reviewed by the University Research Ethics Committee and has been given a favorable ethical approval.

Your participation is very much appreciated.

Thank you,
Layal Alahmadi, Contact: l.s.m.alahmadi@pgr.reading.ac.uk

****

Please provide the following information by ticking (√) in the correct answer or writing your response in the space provided.

1. Gender:

A. Male. B. Female.

2. Age: _____

3. Which hospital do you work for?
   _____

4. For how many years have you been working in hospitals?

_____

5. In which hospital department do you work?

_____

6. What is your job title?

_____

7. Level of study:

A. BA. B. MA. C. PhD. D. Other _____

8. Nationality:

_____

9. What is your first Language? _____

10. What is your country of origin? _____

11. Where did you learn English?

A. at home. B. at school. C. both.

12. Educational background (check all that apply):

Elementary school	A. in English.	B. in your first language	C. Other _____
Middle school	A. in English.	B. in your first language	C. Other _____
High school	A. in English.	B. in your first language	C. Other _____
College	A. in English.	B. in your first language	C. Other _____
Graduate school	A. in English.	B. in your first language	C. Other _____

13. Rate your abilities in general English for the following skills:

Speaking	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.
Reading	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.
Writing	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.
Listening	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.

14. How often do you use English to communicate with other health professionals during your work?
A. every day. B. most days. C. some days. D. rarely e. never.

15. Rate your abilities in using English in your professional medical environment for the following skills:

Speaking	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.
Reading	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.
Writing	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.
Listening	A. Excellent.	B. Very good.	C. Good.	D. Fair.	E. Poor.

16. Please name some of the challenges that you feel communicating in English poses on work and relationships in the hospital?

_____

_____

_____

17. What are the advantages of communicating in English?

_____

_____

_____

18. Would you like to participate in an interview related to this project? If yes, please include your contact email.

_____

Thank you very much for your cooperation!

Appendix 4: Ethics form

School of Literature and Languages
Department of English Language and Applied Linguistics

To Layal Alahmadi
From Dr Christiana Themistocleous

Date 20-5-2021

Your application for Ethical Approval

Your project entitled **"Exploring challenges in medical professionals' English-language communication in a Saudi hospital: an ethnographic study"** has been considered by the School Ethnics Committee, and I am pleased to report that the Committee raised no ethical objections and subject to your undertaking to store the consent forms in the Department Office the normal way, it is accordingly given permission for the project to proceed under the exceptions procedure as outlined in paragraph 6 of the *University's Ethics Guidance to Schools*.

Signed

Christiana Themistocleous

Dr Christiana Themistocleous
On behalf of the School Ethics Committee

Appendix 5: Transcription key

Key

** Unintelligible speech	: Elongated word
_ incompleted word by the speaker	:: much elongated syllable
(0.1) timed pause	/ interruption
? rising Intonation	; falling intonation
[ ] Overlaps	= latching
underline emphasis	
{paralinguistic cues such as laughter}	