

INTERPROFESSIONAL DECISION MAKING AS A TOOL FOR
IMPROVED ETHICAL AND CLINICAL OUTCOMES
IN COMPLEX MEDICAL CASES

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ABSTRACT

In the setting of the health care field, multiple decisions must be made on each patient's care from a variety of viewpoints on the medical team. In these settings, Interprofessional Decision Making is becoming a tool that can incorporate shared decision making with the patients and multiple care team members' goals in order to optimize and keep an ethical focus on clinical outcomes. By reviewing a patient case below and evaluating the body of literature at the present, it can be determined that a disassembly of the current medical hierarchical structure and the barriers to team based interaction it creates, with a move toward open and ethical interactions, collaborations, and discussions will result in shared consensus on a patients management and care. While this may be difficult to achieve, interventions such as multidisciplinary team building and medical training, prior to matriculation, may provide a foundation for improved Interprofessional Decision Making and overall collaboration.

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CHAPTER 1: INTRODUCTION

Increasingly over the last two decades, interprofessional teams have become an essential component of medical care. Yet, teams in themselves face conflict in both clinical and ethical decision making, which can reverberate into decreased quality of care and poor patient outcomes. Researchers have investigated conflict between professional dyads as well as larger teams of professionals in the health care setting to identify both where the conflict stems from and methods for awareness, mediation, and resolution of conflict when it is occurring. Their results show that conflict stems from both professional and personal ethics in the team setting, and that a host of different tools and self awareness strategies are required to alleviate the conflict.

One such tool is the idea of Shared Decision Making (SDM), which is broadly represented throughout ethics and medical literature. SDM is the process of collaborative decision making between the physician and patient, from diagnosis to treatment methods, used to reach an agreement on optimal care. SDM has been a relevant model for informed patient choice in care from the 1990s on and, when done correctly, provides a means for open discussion and best practices between the medical staff and patient. A literature review conducted by Joosten et al. (2008) found that SDM in the case of long-term decisions (defined as relating to chronic or terminal illnesses) can be an effective method for making treatment choices. Two studies showed increased patient knowledge, one showed increased well-being, and one showed greater satisfaction with treatment. The remaining six studies indicated no difference between the two groups and one study showed decreased satisfaction. While these studies show very variable results, the

training of the medical staff, how the decision was made, the medical condition affecting the patient, and the end points of the studies were not controlled and therefore confound what conclusions can be drawn; however, these results do reiterate that the use of SDM plays directly into patient clinical and ethical choice.

In a more recent study done by Arnold et al. (2008), patient specific risk values were incorporated into the informed consent and discussed using the principles of SDM. With this it was determined that patients had better active participation, reduced anxiety, and improved risk recall when consenting to a cardiac intervention. Additionally, with the increasing benefit seen from SDM, the Affordable Care Act section 3506 encourages SDM through use of patient decision aids- "written materials, videos, or interactive electronic presentations designed to inform patients and their families about care options" which is meant to include data on outcomes, benefits and risks, and information specific to the health care team and associated cost (Lee & Emanuel, 2013, p. 6).

We can better understand how SDM contributes to ethical and effective patient care by exploring the key tenants of bioethics and their relevance to patient choice and care. Bioethics is centered on the tenants of autonomy, beneficence, non-maleficence, and justice. The first tenant, autonomy is defined as the patient's right to choose. The tenant of beneficence is the medical practitioner's obligation to act in the patient's best interest which ties in with Non-Maleficence, representing the historical oath of *primum non nocere*. The final tenant, justice encompasses the fairness and equality in distribution and use of resources (Beauchamp & Childress, 2012). In the setting of SDM these tenants are each addressed through a different aspect of the decision making process and dialog.

Patient autonomy is upheld as all information regarding the decision is shared with patient, creating informed choice. Beneficence and non-maleficence are embraced as the physician provides the pros, cons, alternatives, and possible adverse effects, of the available options to optimize and clarify what will provide the greatest benefit. Justice is ultimately served by avoiding undesired choices that may have seemed optimal to the physician but ultimately not to the patient. By using SDM to make an ethically based patient choice, the patient's well being is the ultimate focus.

Perspective, Values, and Interprofessional Decision Making

The patient's personal ethics and illness thus shapes the patient's perspective and personal narrative of his/her own health which guides both education and final choices made in the health care setting. Additionally the physician brings his/her own personal ethics and prior experiences to the conversation. The physician's beliefs, values, and culture all coalesce as his or her worldview which may "lead to implicit bias that may mediate adverse health outcomes" (Tilburt, 2010, p.179). Understanding a physician's worldview may explain a given frame of reference, for example, one "with a very individualistic worldview might hold different assumptions about personal responsibility when conducting risk counseling, medication management, or planning for follow-up visits" (Tilburt, 2010, p.178). This then impacts what is discussed, how it is shared, and in what context the medical information is presented during an SDM discussion. Therefore, in order for optimal SDM to occur, both parties involved must be aware of their own and recognize the other's worldview and what that implies and encompasses.

Implicit in this, is that with each interaction between patient and physician, different ethical and personal perspectives are approached from both sides of the dialog. Each patient will require the physician to account for human variation- with no one case being wholly applicable to another, as each patient is unique independent of his/her disease. Additionally each physician the patient interacts with provides different details and prior experiences, requiring the patient to weight the information given based upon personal perspective. Because of this variation, interaction between the provider and patient is contingent upon each individual's superimposed values systems and precise factual knowledge, which over the course of the interchange causes inherent non-predictability and thus continual non-typical interactions. Therefore, each patient encounter must be viewed as unique, requiring awareness of ethical, social, and prior experience biases. When expanding this concept from a patient-provider interaction in the setting of SDM to a patient-provider-provider interaction in the setting of Interprofessional Decision Making (IDM), these contingent components of the interaction become increasingly complex. Multiple value systems and subspecialized bodies of factual knowledge now need to overlap and integrate, leading to an increase in the number of points of contention, further increasing the non-predictability of the interaction, and creating an environment of uncertainty with conflicting opinions. The difficulty of reconciling conflicting opinions can be addressed, however, through ethically based compromise and pertinent modifications to team interactions and discussion in the setting of IDM.

To address these large, complex, multi-disciplinary teams that ultimately, along with the patient, make the decisions involved in patient care, Legare et al. (2011) created a model for SDM in an interprofessional setting. By applying ethically based SDM to the various disciplines involved in a single patient's care, SDM can become IDM; however, as the number of people involved increase, the complexity increases, requiring greater structure to ensure continued benefit. Legare et al. (2011) suggest that the decision has to be evaluated and supported at the micro, meso and macro levels. At the micro level the model of SDM described above, with a focus on ethical and clinical decision making between provider and patient, applies. At the meso level the focus is the diverse interprofessional health care team, which Legare et al. (2011) suggests can only be successful with collaborative communication and a foundation of trust and respect. The caveat is added, however, that the decision needs to be optimal, not just a means to incorporate everyone's opinions, capitulating to suboptimal compromise over optimal collaboration. This caveat reflects Moody's statement that in the case of SDM "the need to incorporate so many people's ideas could lead to a loss of conceptual integrity" and with the loss of integrity, the outcome may be of little to no benefit (2005, p.258). Finally Legare et al. (2011) states that at the macro level, the patient and all personnel involved need institutional support, in the form of health policies and accessible resources, as well as a shared cultural and social contextual understanding within the professional organization. Only with these macro-level features in place, can a choice be accepted and executed. By implementing open communication and collaboration through all three levels, an optimal – both clinically and ethically – decision on care can be achieved.

As stated above, compromise can cause suboptimal outcomes if not done correctly. Goodstein (2000) explored the ideas of moral compromise and personal integrity in his work in business. While not focused on the health care field, this work can still shed light on how groups and organizations compromise in their decisions. Goodstein (2000) makes the point that compromise puts at risk personal values and ethics, thereby threatening self integrity. He describes self integrity as a consistent set of principles one will uphold for what one takes to be the right reasons, even in the face of temptation. Yet Goodstein (2000) also asks the reader to evaluate compromise in the setting of evolving self integrity. What if, instead of seeing compromise as cowardice, capitulation, or moral surrender of self, one sees compromise as a balancing of personal moral claims against another's legitimate moral claims? Chris Feudtner, an ethicist and pediatric palliative care doctor, asserts that in order to create a deliberative dialog one needs to embrace both tolerance and integrity (2005). By embracing these two principles they interact to balance each other. Feudtner (2005) states

Tolerance without integrity degenerates into political correctness, a callow wet-noodle capitulation to the view of others to avoid conflict and the consequences of dissent. Conversely, integrity without tolerance devolves into self-righteous partisanship, a narcissistic embrace of one's own values (and unacknowledged self-interests) with myopic high-mindedness (p.9).

By embracing both of these principles, compromise becomes an evolving process that is fluid in its conceptions, allowing for responsiveness to various social "goods" and the evolution of those "goods" over time. In the face of compromise becoming fluid, self

integrity remains solid through critical analysis and reflexivity. This mix of fluid compromise, based in tolerance and concrete self integrity, allows for acceptance of the commitments and integrity of others in decision making, creating a balance of the various moral claims involved. This balance creates optimal ethical and collaborative compromise and avoids capitulation to suboptimal compromise.

To expand further, Komesaroff (2012) discusses the complexity, diversity, and intricacy of ethical problems and decision making in his work “Troubled Bodies,” where he states that ethical problems are interpreted by the parties involved in the problem solving, through a “series of assumptions, conventions, and imperatives” yet are “abstract and divorced from the real concerns of the doctor and patient” (p.64). This inherently places all parties at a disadvantage, divorcing clinical from cultural perspectives and concerns. In doing so, the means of providing a mutually acceptable therapeutic intervention is limited by what a dialog of negotiation and compromise can achieve. Komesaroff (2012) therefore asks for recognition that every patient interaction and every decision point, no matter how small, is itself an ethics problem. This recognition that each decision is an ethical issue underlies his concept of “microethics,” and an understanding of this is what enables one to achieve an ethical outcome not just in the conversation or final decision, but provides a broader ethical awareness about the questions asked, the answers given, the word choice, the facial expressions and gestures made, the empathy and compassion expressed, and the exam and touch experienced. In doing so, the final decision is inherently (macro) ethical, as each component piece leading up to that decision was, itself, (micro) ethical.

By incorporating Goodstein's (2000) and Komesaroff's (2012) focus on upholding ethical decision making in the setting of interprofessional teams, there is a template for ensuring that all voices are heard and incorporated into the final collaborative decision. In doing so all team members are given a voice and respect of their personal ethical stance. And in hearing all sides in a collaborative effort, the final outcome should be ethically based, rooted in optimal medical knowledge, and culturally relevant to the patient. However, to arrive at the point in which conversation can even begin in an ethical and collaborative setting, overcoming barriers to IDM must be further addressed.

A multitude of adjustments and modifications need to be made in order to create an optimal IDM setting. Communication is the most often reiterated essential component for SDM and IDM (as well as for team interaction, optimal patient care, and life in general), but it is also the most often repeated barrier. Leipzig et al. (2002) studied resident physicians, nurses, and social workers on geriatric interdisciplinary teams to determine where conflict arose. They found six realms of communication barriers: differing professional/personal perspectives, role competition, role uncertainty, variability in professional socialization, physician dominance, and use of jargon. When evaluating the perceptions of these conflicts between the different team members they found that in general residents had a lower opinion of the benefits of teamwork, perhaps as a result of their socialization into a pre-established medical hierarchy. The residents believed that, in general, the physician was the inherent team leader and therefore had the right to change the team's plan without team consent, and that the role of the team was to assist the

leader in determining treatment decisions. Because of these beliefs, the level of trust and the type of interactions between the resident physicians and other team members are constrained. These resident physicians, who have only had a short time within the established medical hierarchy, have already created barriers to IDM and have begun to undermine the social structure needed for optimal patient care. Had these residents had prior teamwork training with cross professional socialization prior to residency, the resident physicians may have been able to avoid these opinions and behaviors, changing the ultimate structure and function of the team across the various disciplines involved.

These findings were not isolated in a single study. In a study done by Coombs and Ersser (2004) differences between the nursing and physician opinions on interdisciplinary team-based ICU decision-making were evaluated. The study found that both the doctors' and nurses' understanding of the role of the nurses was the same, that the nursing staff spent the greatest amount of time with the patients and their families and were therefore better able to address more emotional issues and to serve as the liaison between the doctor and the patient. However, the nursing staff members reported that they were not able to share sufficiently on rounds and did not contribute adequately to the medical discussions and decisions because of barriers to communication. From this, the use of knowledge that the nursing staff had acquired from their time with the patient was limited, which had it been heard could have influenced treatment decision towards optimal outcomes. Yet the ward was structured so that rounds were a ritual and performed under the medical hierarchy, thereby deterring any deviation from the

structure and creating an “unsafe” environment for sharing. Due to this hierarchical structure, the ability to share information was prohibited.

Echoing these findings, Orchard, Curran, & Kabene (2005) found that alterations to the current health profession culture, specifically the hierarchical nature of medicine, are needed to allow for interdisciplinary collaboration. They suggest four main enablers for change: role clarification, role valuing, trust, and power sharing, which when implemented, can create a culture of collaboration. Role clarification strives to give each team member a defined set of boundaries that allow for one to be confident in his/her own role, expertise with definable standards, values and ethics. Role valuing then creates a respectful safe environment to allow for sharing of self, ideas and ethics which also allotting responsibility and creating accountability. The importance of trust is reflected in its being its own element and not as an implicit component under role valuing. While respect may be present, trust is inherently not. In order to create trust, all team member must be “accessible, dependable, and acting with moral intent” (Orchard et al., 2005, p.6) to therefore encourage commitment to group goals, team ethos, and shared decision making within the team environment. The fourth and final element is directly related to power. Power sharing is difficult, as individuals may hoard power under prior established notions of organizational structure, established hierarchies, and professional socialization. Orchard et al. (2005) suggests that “leadership should reflect non-hierarchical relationships between professions with an equitable distribution of work, authority, responsibility, and credit for success and allow for work across health professional’s disciplinary boundaries” (p.7). By incorporating this shared leadership style, where a

leader's role is flexible based on the patient situation, allows for different needs to be addressed by the most capable individual and creates a shared responsibility across the team, therefore encouraging greater communication and collaboration overall. By creating this culture of respect, openness, trust, and shared power the team can function to identify and address problems as they arise and correct these issues in an efficient and collaborative manner, thereby providing prompt and quality patient care.

In the body of literature that currently exists, many researchers have attempted to clarify the barriers and the solutions to IDM. IDM provides a means to allow for the various team members voices to be heard, as well as the voice of the patient, in order to reach a decision that uphold the bioethical tenants as well as optimizing the procedure and care of the patient from the input of the various team members. Although barriers have been defined and solutions proposed, as of now, there is not yet a uniform or optimized process for IDM. Because of this, the investigation here will use a specific case report to frame the many ethical, logistical, and emotional decision points and potential conflicts faced in a single patient encounter, while attempting to suggest changes to the IDM that could have created improved patient outcomes.

This case report is from an urban teaching hospital on the East Coast and is framed from the perspective of a relative outsider on the team, the third year medical student. While the medical student, by virtue of the white coat, is nominally integrated into the health care team, they are not yet fully-fledged insiders. They have not yet been indoctrinated into the particular ethos of that team's specialty. Third years switch teams constantly, never pledging allegiance to one specialty. Further, they are new to the

hospital setting and patient care, making them dependent on those willing to provide training and information. Because of this, third years seek guidance outside the insular nature of the specialty team. Additionally, the global knowledge from the first two years of lecture-based learning and patient encounters, serves to allow easy transitions between schools of thought and different teams. Perhaps the greatest mark of their outsider status, however, is that third year medical students have not yet lost that idealistic nature associated with the "why I want to be a doctor", prompting questions of "Why?" and "How?" related to interventions and patient care, questions that encourage honest inquiry and best practice discussions.

In the case below, I experienced the duration of the patient's hospitalization through interactions with many different health care providers and the patient as well as her family. The case itself is medically complex and fraught the complexities of team based decision making throughout. Imbedded within the case are decision sequences, identified with a letter such as [X], allowing one to refer between the discussion and case more easily.

CHAPTER 2: CASE REPORT

The case here has been modified in terms of the patient's age, clinical presentation, and a specific diagnosis is not stated. Additionally, the case is ultimately an amalgamation of two patients in order to protect their identity. The case begins with an Amish female who presented to the hospital in acute distress. The patient described months of progressively worsening pain, anorexia and nausea with associated weight loss. She was diagnosed with a fungating (ulcerating and necrotic) mass in the right upper quadrant involving the liver, gallbladder and duodenum, identified on abdominal imaging (computed tomography (CT) scan) which was not conclusive for malignant vs infectious etiology. Magnetic Resonance Cholangiopancreatography (MRCP) imaging, a more specific test, was identically non-conclusive. On speaking with the patient, she and her family decided that they would like to know the underlying cause, necessitating a biopsy. [A]

The interprofessional shared decision point was whether to place a drain and take a biopsy with Interventional Radiology (IR), surgically debride and take biopsies, or have Gastroenterology (GI) perform an upper endoscopy for visualization and biopsy. The three teams involved at that time debated through many different conversations, from the levels of med students to residents, resident to resident, resident to attending, and attending to attending. And these conversations occurred over days, in person, over the phone, and through notes in the chart. From the attending to attending level conversations, IR was deemed to be the best choice in terms of risk, but the IR attending on-call declined to do the procedure with possible spread of malignancy from the biopsy

as his concern. By the end of the week, still no decision was made; however, as the new week began and the attendings changed on the teams, with the change in on-call schedule, the new IR attending was personally willing to try a CT imaging guided biopsy.

[B]

IR then did the biopsy and placed a drain, and now with a drain in place to decompress the mass and a tissue biopsy sent for pathology and culture, the patient awaited her diagnostic results. At this point she could have gone home or be kept inpatient. The decision made was to keep her inpatient, to receive Total Parental (intravenous) Nutrition (TPN) and await the diagnostic results. [C]

The pathology showed metastatic malignancy as the diagnosis, which carries a poor prognosis and the patient was given a “weeks to months” life expectancy estimate. After conversations between the family and the care team, it was decided to begin her end of life care planning, requiring input from the palliative care, home nursing, and social work teams. The patient ultimately determined that she would spend her remaining time at home. On determining home care options it was discovered that she, being strict Amish, had no electricity at home, requiring arrangements to be made to receive TPN. TPN requires a permanent Intravenous catheter (IV) to be in place and a pump (which runs off electricity) to pump the concentrated nutrition into the body.[D] She was able to be discharged from the hospital after a 3 week stay, after the medical assistance at her home for her end of life care was fully arranged.

CHAPTER 3: RESULTS- DECISION SEQUENCES

Decision Sequence [A]

The initial decision point did not begin in the case until the patient had left the emergency department, was stabilized up on the floor, and the admitting team- the surgeons, had reviewed her imaging and blood work results. As the surgical team, composed of medical student, residents, and the attending, approached the patient they evaluated her physically, and upon finding there was no acute need to whisk her off to the operating room emergently, sat down with the patient and her family to discuss the differential diagnoses possible. The initial conversation was one of hypotheticals, with the ultimate goal being whether or not she would like a biopsy to identify the cause of what was going on in her abdomen.

At this point the conversation called for Shared Decision Making (SDM). There was no final diagnosis to give and intervention to provide, instead there was a discussion to be had about what should be done in the setting of uncertainty. The surgical team reported all of the available options to the patient and her family with the pros and cons of each decision outlined for them. The surgical team explained the concern that this was likely something bad and that they were most worried about infection or malignancy, both of which would require an intervention. They explained that in their opinion the best thing to do would be to take a biopsy, as the tissue would give them a clear understanding of what pathology was present, since the less invasive option, the imaging tests, had failed. And they explained that there were multiple teams to do the intervention, with Interventional Radiology (IR) able to percutaneously place a drain and take biopsies, with

surgery able to open the abdomen, debride the site and take biopsies, or with Gastroenterology (GI) performing an upper endoscopy for visualization and biopsy.

The team had the patient and her family ask questions and the doctor's opinion was offered when solicited, allowing for the greatest quid pro quo of information sharing. In this case, by providing the patient with the information available through the tests performed and clinical knowledge, as well as the options for intervention (or not) and the risks involved, both the surgical team and patient were able to reach a decision: to proceed with a biopsy to determine the underlying pathology.

Decision Sequence [B]

In this case study, while the initial SDM between the primary surgical team and the patient was able to determine the desired path forward, the decision that was made could be executed in three ways- each one requiring a different team, intervention, and risks. Here the discussion transitioned from one of SDM, to interprofessional decision making (IDM), now requiring multiple teams to make the optimal patient care decisions. The patient was, at this point, removed from the decision making process, as the interventionists debated with one another to determine what procedure would be best. The interventions were weighed against one another by medical rational, each physicians' confidence in their skill, and risk (which changed depending on what the underlying pathology was assumed to be), all the while keeping in mind the desire to achieve beneficence and non-maleficence for the patient.

The use of IDM changes the lens through which the problem is seen. The role of education is reduced and the weight of the decision is placed on confidence and skill in

the procedure. The process becomes a debate in place of a discussion, and the winner gets the intervention. Yet the debate is held in multiple forums through multiple debaters. Communication between the 3 teams was mixed between the written chart notes, the residents, and the attendings. As the residents deciphered the notes' intentions and called to speak with the other team's staff, conversations were fragmented and lost as staff ran to the OR or rotated off the service. Any information obtained, noted, and deciphered was then reported up to the attendings, who formulated their plan and dictated the information back down to the residents, who again shared across the teams. This vertical communication within one team and then horizontal communication across the teams lead to various concerns with what information got where and how clearly it was communicated. With this method no decisions were made in the first few days of conversation.

Once the conversation was moved to a one-to-one horizontal conversation at the highest level of each team, the attending, was a decision able to be made. And yet then, as IR was deemed to be the best choice in terms of risk, the IR attending declined to do the procedure. Surgery and GI held off until another IR attending was available to repeat the conversation, who agreed to do the procedure then, but this lengthened the patient's hospital stay and dictated that she wait longer with the stress of no answers and escalating hospitalization costs, suggesting that both justice for those who could have used the room and had their intervention done, as well as, non-maleficence, lived as stress, cost, and a lack of intervention, were violated by these teams.

The teams here, while interacting across hierarchical boundaries, found themselves coordinating care, instead of collaborating on health care decision. None wanted to intervene based on risk, yet an intervention was needed. As the hierarchy and ego of the teams seeped into the discussion, it undermined compromise, as each team believed that they knew what was best and therefore should wait until the other team agreed- capitulating to compromise. Each team was submerged in a their “professional culture, seeped in group think, rooted in professional identity, and confined to... differing conceptual frameworks, roles, and tasks, that may serve to endanger... the capacity for interprofessional cooperation” (Irvine, Kerridge, McPhee, & Freeman, 2002, p.206). Without the ability to remove these barriers the conversation stalled and all refused to act. Had these teams been able to interact in a setting of mutual respect, interpersonal sensitivity, and integrity with tolerance thereby creating self reflection, empathy, and acknowledgement of other points of view- even outside one’s comfortable moral framework as suggested by Goodstein (2000), they may have been able to reach a conclusion earlier. Had surgery been willing to do the IR procedure in the operating room as a backup or had GI agreed to scope in the IR suit to provide visualization, the collaborative effort could have provided a means to do the procedure on the first day of the debate.

Decision Sequence [C]

The patient was now progressing toward diagnosis and had finally had her intervention, but was now faced with new decisions with different teams driving the decision making. Now the determination was whether she should remain inpatient or

receive the rest of her care outpatient. While the patients initial interaction with IDM was focused on the interaction of three medical teams, as her care progressed her IDM experience expanded into the other roles of medical care, requiring more and more interaction and collaboration across multiple discipline and personnel. Social work, home nursing and nutrition became the driving teams for the decision at hand.

Social work determined that she lived in a rural Amish community would have had difficulty returning if an emergency were to occur do to transportation and access issues. Additionally, living without electricity limited her home care options. As she was unable to tolerate food and she had declined a palliative gastric bypass operation per surgery, the nutritionist had recommended TPN for her nutrition at home. The TPN is administered via a continuous infusion pump, which contains a battery unit, but is not functional for more than a few hours off of electricity, again creating difficulty for at home care. Because of this social work, nutrition, and home nursing had to coordinate to determine if a generator was needed or if a site could be found to give the infusion over a shorter amount of time in place of a continuous 24-hour infusion.

While focused on the collaboration and optimization of her care, her case challenged the bioethical tenant of justice. While one could argue her in-patient stay was justified as hers was a unique situation, others with related clinical decisions would have been sent home to await their results and determine further intervention. Conversely, she was kept in the hospital, not transitioned to any step down unit, and she remained on the admitting surgical service's team, to receive their care as well a round the clock nursing support. She received more care then she needed to avoid the complexities of arranging

transport and home health in an electricless setting. While receiving superior care, this is still a poor allocation of resources that could have been avoided by better collaboration of care. Had the surgical team started discharge planning with social work and nutrition in the first week where the debate on biopsy was carrying on, all of this could have been arranged in advance. This would have required forethought on behalf of the surgical team and also required that they surgical team be willing to defer power to the other team members, who deserve that power and trust. As Orchard et al. (2005) found, ensuring that the team members' roles are clarified and then giving the appropriate value, trust, and power to those roles, creates the optimal culture of collaboration. Has this been done by the surgical team toward the social work and nutrition teams, instead of just coordinating care between the teams at the last minute, there could have been collaborative care that would have prepared her for discharge at the appropriate time.

Decision Sequence [D]

With the diagnosis of terminal cancer, the final decision point became one of the most complex. The patient had to decide what she wanted for end of life care, while the team's participants were focused on keeping her alive. She could have had a palliative surgery or received palliative chemotherapy or simply gone home on comfort care, from which she opted for comfort care. The primary team remained the coordinator of her care, although no surgical intervention was done, assimilating information from nutrition, nursing, pharmacy, oncology, and palliative care. The nursing staff fielded the family's questions and reported pain, nausea, and questions to the team. The nutrition staff modified the TPN based on the laboratory results for the morning's blood work. The

pharmacy called in to let the team know why they cannot use that antibiotic and how that pain med will interact with one of her home meds. Yet while juggling all this information in phone calls, text messages, in the EMR, the ordering system, written chart notes and encounters in the hallways, the team had to consolidate this information and ensure its accessibility to the palliative and oncology teams who were managing her terminal cancer. In all of this coordination, there still needed to be collaboration between all teams in order to ensure that the patient was receiving all the care necessary to ensure her comfort and health.

End of life care is a complex and difficult process for a patient, family, and the health care system. Many patients (or a proxy) are caught with a sudden need to make end of life care decisions without having previously broached the subject or having definitive ideas as to what they want to happen. In these situations the decision maker must be guided through an array of decisions from DNR status, to palliative vs comfort care, to home health vs nursing home arrangements.

In the case of the patient here, she and her family were suddenly faced with end of life planning, in one who had not yet entertained the idea of dying. Her decision making paradigm was focused in her faith and desire to let God guide her end of life care. Through this, she opted to be placed on comfort care, with pain medication and TPN for nutrition but no further intervention or chemotherapy. Additionally she chose to be DNR and to spend the remainder of her life at home with her family and friends. In making these choices, discussion between palliative, oncology, the primary surgical team, pain management, social work, nutrition, and the home health coordinator were needed.

This array of health care staff needed to be in constant contact with one another in order to coordinate care to reach the collaborative end point of her discharge home. While the surgical team placed a PICC line for IV access and ordered the pain medication and TPN as dictated by the pain management physician and the nutritionist respectively, social work needed to find the equipment and a location where the TPN could be administered in an Amish community without electricity and this then needed to be communicated and scheduled with the home health service. Without clear communication between all of these groups this patient could have left with an order for TPN, a PICC for access, and a pump to administer it, as well as a home nurse to set up and dose the TPN, but all for naught- as there would be no electricity to run the pump!

In the setting of IDM based care where all of those involved have done their parts, like that of puzzle pieces being fit together, even if all the pieces seem to be in place, the picture can be distorted, or care can be suboptimal. If all those involved have simply coordinated their component piece, in place of collaborating with the others, the outcome is suboptimal- leading to poor patient care and a violation of ethics. The health care staff, while giving the patient a choice and doing their jobs by fulfilling their obligations to provide care, essentially violate beneficence, non-maleficence, and justice- by preventing the patient from receiving the necessary care and allocating resources that cannot be used, because of one missing piece. Yet the scenarios where this can occur are endless: from a missed communication so that a PICC line is not placed prior to discharge, preventing administration of a drug; to a missed communication, so that 911 is called and chest compressions begun, instead of letting the patient pass quietly as a DNR. Here the patient

had a delayed discharge, however, she was able to go home with all that she needed because of the concerted efforts of all the team members in charge.

CHAPTER 4: DISCUSSION

In this case of a patient with cancer, care was complex and dependent upon many inputs to achieve a single output - a dignified, comfortable death with friends and family. While this patient achieved this outcome, it would be unreasonable to say that she had optimal care. Initially, the poor IDM between the three interventional teams delayed her diagnosis and prolonged her hospital stay while not improving her symptoms. Then her discharge was further delayed because of cultural unawareness, in that the resources she had available at home were not understood by the primary team. Delay continued, secondary to oversights in communication and collaboration between the various social work, nutrition, and home health team members who could have resolved the problem earlier, had they been made aware.

On looking back on and evaluating these delays and lapses in optimal care, many retrospective hypothetical questions emerge. What if the teams involved been able to communicate on an even level in place of tiers? What if leadership been shared in place of hoarded at the top of the tiers? What if open communication and exchange existed between social work, home health, nutrition, the family and the primary team? What if the nursing staff felt able to voice their concerns on rounds with the attendings present? Then, could it have been possible her care could have taken a more efficient and speedy course, getting her home to her family faster and allowing her more time to spend with them, instead of in the hospital at the end of life? While these modifications are retrospective and hypothetical, there needs to be a means to attempt to make these changes in future cases.

One place to start to make these changes is in the setting of communication. It is critical that care be collaborative and not just a coordination of the component pieces. Yet this requires communication across the multiple physician teams, health care staff teams, and the patient, where all communication must assume and give equal stake in the conversation and final decisions to all parties. This requires that the physician team coordinating the care place equal value, respect, and weight upon the information and decisions of all of those involved, thereby creating an environment of trust. Additionally, all involved have to be able and willing to speak up and express their opinions and decision to the coordinating team in that environment. In order to have this multi way communication, there needs to be a culture of respect, a disassembly of hierarchical structure, and a suppression of ego.

Historically, the hierarchical structure of medicine creates clear delineations as to power and decision making structure. While practicing paternalistic medicine in the past, the patient was given no power, the nursing, social work, OT/PT, and nutrition staff were deemed the support staff, and the doctors were the ones with power and decision making capabilities. Yet, the shift toward SDM and IDM requires not only that the patient be given power, but also that the “support staff” is recognized as critical members of the team and not “just support.” The “supporting players” need to be recognized as decision makers with the power to educate, discussion, and convey information to and from the other team members and the patient. A continued progression to a setting of equal power, within the role boundaries of each team member, is critical to creating an environment

that encourages a team ethos and shared ethics- thereby creating optimal communication and optimal outcomes in patient care.

When achieving equal power, even in a setting of a flexible and dynamic leadership structure, a leader is still required to take control and ensure the plan's implementation, execution, and outcomes. A different leader may cover each task or component, but that individual is the leader of that function, requiring a balance of power and responsibility. The responsibility of the leader is diverse, and includes shouldering the responsibility and blame when things go awry in patient care. To protect the resident physicians and medical staff, the attending physician shoulders the legal ramifications. While this is beneficial to training and learning, as well as protecting the patient, this also creates an inherent power structure, which now in the setting of SDM and IDM, is difficult to overcome. This power structure is reinforced by the institutional systems of checks and balances within the hospital as well and again within the societal construct of who is socially viewed as the power holder. Hence why the affronted or unsatisfied patient always demands to speak to the attending- in lieu of the resident who is actually checking in on him/her.

This hierarchal power structure ultimately limits the voices of those who do not hold the legal ramifications of the case, so while they may be heard in a team based setting, the weight of their voice is less, and can thus be silenced. In the study by Leipzig et al. (2002) the team found that the physicians believed that they could change the final orders without re-consulting the team as a whole, making the final decision independent of the IDM concept. This of course was not the majority view of the nursing, nutrition,

and social work staff who were studied as well, yet a significant proportion (35-40%) suggested that this was the correct thing to do, shedding light on how deeply entrenched the hierarchal structure is, as those who should have had a voice were willing to defer to those with perceived power. Therefore, while power sharing remains an issue, unwillingness to demand power and inability to portray competency to the other team members detracts further from whatever power may have otherwise been conceded. Additionally, in the setting of hierarchical power relations, those without power will withhold information, not maliciously, but out of a sense of fear. Larson, Christensen, Franz, & Abbott (1998) showed that by not sharing information there is no independent corroboration of the unshared facts, creating the general perception that this information is not as valid, thereby decreasing its influence on patient care. This can be detrimental as it threatens informed choice for the patient and undermines care on the behalf of the provider.

It is critical to find ways to disassemble the hierarchy and allow for sharing of power, but Brown et al. (2011) found that this difficult to achieve, because of a lack of role boundaries, unclear scope of practice for each team member, and overall accountability. The first two issues relate, in that overstepping of professional boundaries and lacking awareness in responsibility, create both overlaps and gaps in coverage, leading to fights for power and creation of blame. Additionally, without proper role and scope definitions, the accountability of different tasks is lost, making it so that blame is misplaced and misdirected which creates dissention among team members.

In order to overcome this and create a culture of collaboration, Bronstein (2003) suggests that there are five core components: interdependence, shared professional activities, flexibility, collective ownership of goals, and reflection. Interdependence and sharing of professional activities requires role definition and understanding of scope of practice through effective communication, mutual respect, and integration of ideas. By understanding that tasks can only be completed through dependence and collaboration with one another, team members can achieve greater creativity and collaborative success, thereby generating better patient outcomes. Flexibility becomes critical to allow for productive compromise in disagreements and role alterations as dictated by the situation. By altering role definitions as needed the team is better able to edit goals as impediments arise and also decrease the hierarchical nature of medicine, creating an equality based collaboration. In doing so, there is more shared responsibility and joint decision making, focused toward definition, development and achievement of goals thereby creating collective ownership. Because of shared success and failure, outside of a hierarchal structure, blame and accolades are shared evenly, supporting constructive disagreement and feedback, to further strengthen the team relationship and effectiveness. Through acting under these five components “interdisciplinary collaboration [becomes] an effective interpersonal process that facilitates the achievement of goals that cannot be reached when individual professions act on their own” (Bronstein, 2003, p.299).

In addition to Bronstein’s culture of collaboration, Clark, Cott, & Drinka (2007) found in their study of interprofessional teams that the individual him/herself must embody specific characteristics to exist effectively within the team structure. The

individual needs to cultivate and embody self respect and self confidence, bounded in personal competency, that when applied in a team culture of trust and mutual accountability, allows for open communication and ease of conflict resolution. Therefore, if the individual can embody these aspects, while maintaining self integrity but being open to moral collaborative compromise, IDM can provide ethical and clinically optimal decision making in patient care. This type of IDM allows for multiple team members' voice to be expressed and incorporated into collaborative patient care. Had this been achieved in the case reported here, the outcomes for the patient discussed may have changed in terms of length of stay, integration of care and collaboration of care. In place of what actually occurred above, her optimal case may have looked like this:

The case begins with an Amish female who presented to the hospital in acute distress. The patient described months of progressively worsening pain, anorexia and nausea with associated weight loss. She was diagnosed with a fungating (ulcerating and necrotic) mass in the right upper quadrant involving the liver, gallbladder and duodenum, identified on abdominal imaging (computed tomography (CT) scan) which was not conclusive for malignant vs infectious etiology. On speaking with the patient, she and her family decided that they would like to know the underlying cause, necessitating a biopsy.

[A]

The interprofessional shared decision point was whether to place a drain and take a biopsy with Interventional Radiology (IR), surgically debride and take biopsies, or have Gastroenterology (GI) perform an upper endoscopy for visualization and biopsy. The three teams sat down with the family and discussed who could provide the safest and

most efficacious option, which was decided to be IR in a surgical suit with the surgery team as support. [B]

IR and surgery then did the biopsy and placed a drain the next day in the operating room. In the meantime, social work and home health had located the equipment she would need at home, as the surgical team had informed them that the patient would be going home with TPN at the time of discharge. [C]

The patient was discharged home with pain control and TPN to await her biopsy results. She had a follow up appointment scheduled in two weeks with transportation arranged to return to clinic. With the biopsy resulted as malignancy, the surgical team was able to schedule back to back appointments for her follow up, so that after her follow up with them she would be seen by palliative care and then pain control so that she only needed to make one trip and return home again that day. [D] Her end of life care decisions were documented and her medical assistance at her home was continued, allowing her to remain at home with friends and family.

CHAPTER 5: CONCLUSION

The studies discussed herein can inform both optimal behavior and which traits can allow for the greatest success in a team based setting and the changes that need to be made. But the question remains: how can one feel comfortable enough to act in this manner and treat one another with respect, if there is no foundation of trust and openness in the current medical hierarchy. A move toward change in the culture of medicine is needed, in order to remove the medical hierarchy, redefine legal responsibility, and encourage openness between team members from different medical professions. However, a complete cultural renovation requires and time and restructuring at the micro, meso, and macro levels, in order to be a truly sustainable and become an integrated format for care. Even while these modifications are introduced in a piecemeal fashion, IDM provides a potentially highly effective model for immediate and pragmatic action to improve patient care.

To encourage optimal IDM, a solution that is now coming to light in the current literature is teamwork training and cross professional socialization prior to working in the hospital environment. The Interprofessional Education for Collaborative Patient Centered Practice Model (D'Amour & Oandasan, 2005; D'Amour, Ferrada-Videla, San Martin Rodriguez, & Beaulieu, 2005) suggests that educational learning environments need to be incorporated into interprofessional practice, with links between education and practice to allow for collaborative practice, problem solving, patient participation, and maintained scope of practice without duplication of services provided or power conflict.

The literature remains sparse in teamwork training across multiple disciplines in the health care fields prior to matriculation. While medical schools have attempted to integrate nursing and pharmacy students into some of the case based learning or during mock patient encounters, these sessions do not typically have prior training points and do not incorporate debriefing and learning sessions. There is no formal role for team based learning and training, therefore the outcomes of these types of scenarios are limited to a minimal number of short term studies (Chakraborti, Boonyasai, Wright, & Kern, 2008) or data gleaned from the interaction of these groups once in residency and/or a formal occupational setting. Without any team based training or education on skills for teamwork, these individuals have to learn while also trying to learn how to properly manage a patient and adapt to a new environment, therefore compounding the stress and creating an inefficient learning environment. Because of this, coordination becomes the only viable option, as the team members do not trust one another and role boundaries, scope of practice, and accountability are all unclear and unable to be defined in an unsafe and stressful environment. It can be hypothesized, if these individuals had prior team building and teamwork training, with experience in multidisciplinary patient care and interdisciplinary decision making, then they would be able to better assimilate to the environment and provide collaborative care with improved health outcomes.

Additionally, training for each of these professions results in insular groups with shared ethos and exclusionary identity. Following training, these individuals that identify with a specific insular group, are placed into a well established and ubiquitous hierarchical structure bounded by legal, historical, and societal constructs and asked to

interact, collaborate, and come to a shared consensus on a patients management and care- which may be unfeasible based upon the individuals self and group identity and boundaries. In the setting of multidisciplinary training, it would be hopeful to suggest that these individuals can be given the tools necessary to allow for communication and collaboration as so many of the authors referenced herein suggest. By doing so, patient care can be improved directly and as a side effect, there will be improved social interaction and trust across medical disciplines. No one person or team can be an end all solution, but a concentrated effort by all these disciplines through education, training, and team building may be able to create a new system and structure for optimal patient care.

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