

# Chapter 10

## Interprofessional Collaboration

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As hospitalists, we have the opportunity to lead a variety of services with a variety of functions. Intuitively, successful interprofessional collaboration or teamwork in hospital medicine is important. We believe good teamwork leads to excellent patient care, happy team members, and an efficient use of resources. For simplicity, we will define a hospitalist team as a group led by a hospitalist working interdependently towards providing excellent, efficient medical care. Despite the years of training, teamwork has not been an instructional priority. Instead, we train to believe the more information and more patient experience we garner, the better care we provide. Nothing and no one else is needed. The reality is we are dependent on those around us to provide optimal care. Most of our teams consist of some combination of hospitalists, nurses, case managers, pharmacists, social workers, physical therapists, occupational therapists, non-physician providers, and residents. Some are teaching services, some non-teaching. But trying to evaluate how well a hospitalist service works as a team within an organization can be imposing.

### The Need for Interprofessional Collaboration

We pursue a career in medicine to help people. But in 1999, the Institute of Medicine estimated between 44,000 and 98,000 patient deaths occur annually due to preventable medical error. Beyond the patient toll, the errors incurred an

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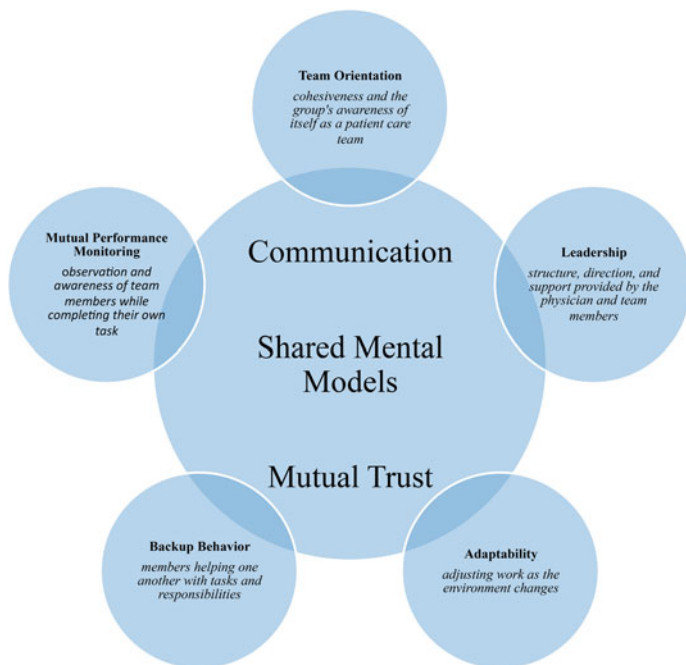
estimated annual cost of \$17 billion to \$29 billion and contribute to public mistrust of the healthcare system [1]. The report recommended the establishment of interdisciplinary team training programs, based on team management principles, to improve hospital staff coordination and communication. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) reported ineffective communication resulted in 70% of preventable errors involving death or serious injury from 1995 to 2003. From 2004 to June 2014, communication, leadership, information management, and care planning were among the top root causes of sentinel events. A sentinel event was defined as a self-reported unexpected occurrence involving death or psychological injury. From 1995 to September 2010, roughly 68% of sentinel events occurred in the hospital [2].

## Building a Team for Success

Multiple frameworks for successful team structure exist, but none are clearly identified as ideal for hospital medicine. Fortunately for us, they do share similarities that we can use to model our own teams. Good teams are built with: leadership, mutual performance monitoring, backup behavior, adaptability, shared mental models, communication, mutual trust, and team orientation [3–5]. The fundamental aspect of a team is that each member has a set of skills, knowledge base, and attitudes to help promote the team's goal.

For us, every team member's specialized training identifies their knowledge base, roles, and responsibilities. The goal is excellent patient care. In the case of our hospitalist team's day-to-day patient care routine, the physician or non-physician provider evaluates the patient and writes/communicates orders to nurses, pharmacists, laboratory, therapists, and others. The pharmacists provide the ordered medications, nurses dispense the medications to the patients, labs and imaging are reported. The patient is then reevaluated based on feedback from the information, team members, and the patient. Although this oversimplification may seem adequate, it actually is more involved. To work effectively together team members not only need to possess their individual set of knowledge, skills, and attitudes, but also the ability to monitor each other's performance, knowledge of teammates responsibilities, and a positive attitude toward working together. We have all seen situations where poor interprofessional communication or interactions result in impeded work flow or potential harm to a patient.

The ability to create highly effective, interdependent interdisciplinary teams is a highly valuable asset to any hospitalist group. The Salas theory of teamwork defines five core elements and three coordinating mechanisms as necessary to create high performing teams (Fig. 10.1) [4]. Just as the team is interdependent, so are these elements. Backup behavior, adaptability, and mutual performance monitoring work hand in hand. Members not only must understand what each other's roles are to critique and help, but also to know what roles they are capable of assuming during times of high stress or demand. Communication is a skill that allows the interactions to function. Hospitalist teamwork is led by a hospitalist but sustained by a shared



**Fig. 10.1** Shared set of knowledge, skills, attitudes, and coordinated by communication

set of knowledge, skills, attitudes, and coordinated by communication, rather than permanent assignments.

The means of creating and demonstrating teamwork can be daunting. Generally, you have three options. Select individuals with specific knowledge, skills, and attitudes to be part of the team. Modify tasks, workflow, and structure to accommodate the team. Lastly, develop individual team member competencies through training. Within the hospitalist team, the members are generally assigned.

The hospitalist team orientation is simple, we are a group committed to providing excellent patient care. Because tasks performed by one member are dependent on tasks performed by other team members, limitations need to be minimized to allow the group to optimally function.

*An elderly floor patient is being treated for community acquired pneumonia, when the nurse notices the blood pressure is relatively low and the heart rate is elevated. The vitals and concern are communicated to the hospitalist, Dr. Lane, who must decide what supportive measures to order and whether to monitor the patient or escalate care to a higher level. If a higher level of care is needed, then Dr. Lane will need to communicate with a consultant while reviewing laboratory data, vital signs, and imaging. The non-physician provider, resident, or nurse will need to continue medical care, monitor the patient for deterioration, and write new orders as needed.*

For the sequence to run smoothly, communication and a shared understanding of one another's roles must exist.

## ***Interprofessional Education***

Interprofessional education (IPE) provides an important opportunity for team members to better understand one another's role through direct education [6]. Monthly lecture series based on common illnesses, physical therapy strategies, case management topics, and speech pathology is a strategic use of IPE to ensure an understanding of the team's plan of care and provide a formal vehicle for members to express their approach and skills. Presentations should be about 30 min, structured to address factors that influence initial decision-making from the presenter and how information from team members affect further patient care evaluation and recommendations. Allowing at least 15 min for questions and comments provides an opportunity for clarification and group dynamic assessment.

## ***Team Hierarchy and Leadership***

One aspect of team leadership is hierarchy. Hierarchy is necessary within a team. It provides members with clearly differentiated roles to further patient care. However, hierarchy can also lead to dysfunctional communication within the team [7, 8]. As leaders of the hospitalist team, we have to balance our positions atop the hierarchy with an understanding of our dependence on our team.

*A patient with chest pain patient is monitored overnight on telemetry. The patient has no laboratory, imaging, or ECG data suggestive of acute coronary syndrome and is planned for discharge. When talking with the case manager, the patient complains of continued chest pain and now reports a cough productive of green sputum. When discussed with the hospitalist, Dr. Lane, the concerns are ignored and the discharge order is placed.*

Such events can lead team members to avoid raising concerns or suggest alternate plans of care to the hospitalist, even when it would be appropriate to do so. This can lead to mismanagement and undermine your role as a team leader. Although the final decision to discharge rests with the physician, engaging team members and addressing concerns to ensure a common plan of care helps limit mistakes. Most medical teams are hierarchal, but fostering an environment in which assertiveness and mutual trust is appreciated will reduce the negative effects. Effective leaders limit the interpersonal constraints of hierarchy and encourage open communication.

## ***Interdisciplinary Rounds***

Leadership is built upon communication and decision-making. Limitations of memory, effects of stress and fatigue, distractions, interruptions, and limited

multitasking abilities make physicians prone to mistakes; individuals make more mistakes than a team [8]. Fortunately, most hospital medicine teams consist of multiple members. However, each member has a different perspective on the patient's care and decisions do not always gain consensus. Moreover, each member is trained differently in his/her respective professions and may communicate with varying styles. While each team member may have specific information to share with his/her counterpart at end-of-shift transitions, coordinating all members to participate in interdisciplinary rounds, or briefings, can be highly beneficial to all. This is time set aside to ensure the goals for each patient are addressed by all the team members. Another crucial aspect of the briefing is to establish a common format or language when discussing patients to make efficient use of your limited time.

In a group consisting of a charge nurse, physician, resident or non-physician provider, case manager, and social worker, a reasonable presentation of each patient would be a brief history, plan of care, evaluations, and disposition obstacles preferably at the beginning of the day. The rounds should be led by the hospitalist who communicates the plan, but the coordination and timing of the processes should be addressed by the team members so as to elucidate any obstacles early in the day. The process of briefing is valuable even when all members are not immediately available, instead gathering as much of the team as possible and communicating the plans with other team members as time allows. Ideally, another interdisciplinary round (debriefing) would take place at the end of the day to assess what went according to plan, obstacles, and what needs to be done differently for a particular patient or all patients in the future. This provides an opportunity for team members to monitor one another's performance, provide immediate feedback, and avoid late day adjustments to minimize delays in care.

### ***Barriers to Creating Successful Teams***

As mentioned earlier, most hospitalists are not formally trained to be good team members. Not only do we lack training, but cultural, structural, and strategic barriers limit our team building abilities [9]. Culturally, physician autonomy has the potential to limit the creation of good teams. We can blame it on training, silos, or workflow but the crux of the problem is that people work along the path of perceived or immediate least resistance. It is easier for us individually to make a decision and move forward than take time to discuss and confer with others. More broadly, it is easier for team members to defer decisions to the hospitalist and create a bottleneck for patient care limited by the hospitalist's availability, workload, and expertise.

Another impediment lies within the structure of the inpatient service. Hospitals are a collection of departments. Improvements and decisions focused on departmental gain may come at the expense of the team. Incentives for shorter lengths of stay, decreased resource utilization from a hospitalist standpoint may contradict

patient satisfaction and safety outcomes for nursing, case managers, and social workers. Strategically, team members should share outcome goals and measures to improve team dynamics. Unfortunately, the current system still operates independently for each member.

Almost every hospital has a safety program but few have made it a priority within the patient care teams. For example, nurses monitor falls, medication errors, and other negative outcomes separately from the pharmacists and physicians. Physicians could review orders to limit errors and pharmacy safety initiatives could address medication administration difficulties. But pharmacists and physicians, in general, are provided limited access to information regarding errors from their orders or from errors on their floors. A monthly or biannual report of medication errors for each hospitalist can provide an opportunity to improve interactions with pharmacists and nurses while improving patient safety. Even though a standard, hospital sanctioned review of hospitalist led teams does not exist at most institutions, acknowledging the importance of feedback and developing a measurement methodology within our teams can contribute to overall performance.

### *Formal Team Training*

In terms of formal training, few options exist. The Institute of Medicine suggested training in leadership, communication, and team dynamics could reduce medical errors and improve patient safety. The Agency for Healthcare Research and Quality (AHRQ) is the lead federal agency in supporting and implementing the Institute of Medicine recommendations. AHRQ provides comprehensive materials for programs online, including training modules and a set of guides for pretest evaluation, training implementation, and post training evaluation [6, 10]. The program is based on crew resource management (CRM) training. Initially used in commercial aviation in response to a majority of airplane crashes being due to poor communication, leadership, and decision-making, CRM has been adopted by the military, fire departments, and rapid response police units. The program focuses on group dynamics, leadership, communication, and decision-making. Perhaps most important for hospital medicine, CRM enforces that all members of a team are vital and integral pieces to ensuring optimal patient care. An important tenet of this training is that team members can learn from mistakes and prevent their repetition by providing a conducive environment.

MedTeams<sup>®</sup> and TeamSTEPPS<sup>®</sup> are two formal CRM training programs applicable to hospital medicine [11, 12]. The MedTeams<sup>®</sup> program is geared toward emergency department teams but teaches a program based on physician patient prioritization, efficient management of multiple patients, and effective coping with disruptions. The course helps users learn how to maintain a team structure, planning and problem solving, communicating within a team, managing workload, and improving team skills through group review. TeamSTEPPS<sup>®</sup> is another tool to improve teamwork by enhancing communication and other skills. It uses a

continuous three phase program involving assessment, planning, training, implementation, reinforcement, and sustainment. The curriculum teaches competency in leadership, situation monitoring, mutual support, and communication.

### ***Team Assessment***

Following the creation of an appropriately assembled, trained interdisciplinary team, the team must engage in continuous evaluation for improvement. This evaluation involves quantifying the subjective nature of how teammates feel about working with one another. While physicians and nurses have evaluation systems within their professions, there are typically no standards for their interaction. Psychometrics can measure and improve team dynamics. Psychometrics is the science of psychological measurement. It can help evaluate the relationship between individuals within a team. It focuses on areas of perceived responsibilities, expectations, shared learning, decision-making, authority, and autonomy. Several models applicable to medicine exist. The Cognitive–Motivational model, Attitudes Towards Health Care Teams Scale, and the Nursing Teamwork Survey are examples [13–15]. They have been vetted as acceptable, valid, reliable scales. The applicable elements of the scales include a simple scoring system and questions involving assertiveness, decision-making, situation assessment, leadership, and communication. The scales evaluate how team members perceive one another's attitude toward the group based on those elements. Questions steer away from personal likes and dislikes, rather focusing on behaviors that affect the group. *Is an effort made to incorporate the opinions and recommendations of all group members when determining a plan of care? Is there alignment between the team's goal and individual departmental goals? Is the workload distributed fairly?* Questions like these can provide insight into the group's collective attitude. Using a set of questions you feel adequately evaluates your team based on the core elements is important.

Another measure of the team involves identifying outcomes. The ultimate goal of the team is to provide excellent patient care, but identifying metrics important to the team and to the individual member's department provide tangible, measurable endpoints. Hospital and patient metrics are valuable resources to evaluate a team's success. For example, medication safety is driven by the five rights of medication administration: right patient, right drug, right dose, right route, and right time. Error rates are routinely kept by a hospital's medication safety council or patient safety officer and are reflected in quality measures across pharmacy, nursing, and internal medicine. The Joint Commission Core Measures surrounding venous thromboembolism, heart failure, pneumonia, acute myocardial infarction, hospital acquired infections, and tobacco treatment are publicly reported outcomes that can also be valuable endpoints for multiple members. Although work relative value units can be difficult to calculate during real time adjustments for team dynamics, other measures may prove more useful. Patient encounters per day, length of stay,

discharges per total encounters per day, new admissions per day, and patient satisfaction surveys are tangible numbers for every member of the team.

Hospital medicine is complex. Hospitalists work in multiple settings but lack an established standard for communication, developing mutual trust, and team training. Instead, we depend on our innate interpersonal skills to function within a team. No hospitalist should expect to care for a patient independently, rather embrace the interaction with other disciplines to optimize care. As team leaders, hospitalists are responsible for creating a constructive, non-punitive environment for team success. Successful collaboration fosters the sense every member is appreciated, opinions are heard and incorporated, and improvements are based on member contributions. Measuring team success involves assessing both the team interaction and the group outcomes. Criteria need to be established to measure, confirm, and monitor effectiveness. Trying to incorporate these goals in the limited time available is challenging. However, periodic self-assessment of processes and outcomes improve team dynamics. The Institute of Medicine mandated healthcare develops a means of incorporating a team-based approach to reduce patient harm and cost. Fifteen years later, we are still examining the best approach to such an endeavor.

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