CHAPTER 5

Collaborative Care: Physician and Nursing Interactions and the Foundation of a Successful Unit

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INTRODUCTION

This chapter examines collaborative care by considering meanings of collaborative care, the makeup of the critical care team, forms of communication, and team effort. Meanings associated with collaborative care are explored, with particular reference to benefits of collaborative care within the critical care context. The various interdisciplinary health professionals who make up the critical care team are described, including medical and nursing personnel, physician assistants, pharmacists, respiratory therapists, social workers, occupational therapists, physical therapists, and nutritionists. The forms of communication that take place in critical care settings are identified, including critical care rounds, clinical handovers, and admission and discharge practices. Also important is the team effort that needs to be employed for orientation of new team members, patient monitoring and observation, and communication with patients’ families.

MEANINGS ASSOCIATED WITH COLLABORATION

Collaborative care involves communicating information, opinions, and feelings; sharing decision-making, tasks, and goals; negotiating power to enable equitable participation and mutual respect; and facilitating the uptake of effective treatment (1–3). Henneman et al. (4) described collaborative care as a joint venture with two or more health professionals working together to achieve a common goal. It is a cooperative endeavor in which individuals contribute willingly in planning and organizing patient care. Health professionals offer their expertise and share responsibility for final outcomes while other individuals acknowledge their involvement in the venture.

BENEFITS AND AIM OF CARE

The ultimate aim of collaborative care is to produce positive outcomes for patients. Positive outcomes of effective collaboration include a decline in nosocomial infections (5), improved patients’ quality of life (6,7), lower mortality rates (8,9), reduced length of hospital or critical care stay (10,11), reduced cost of care (5,10), reduced unnecessary antibiotic use (12), reduced medication errors (13), and reduced adverse events such as oversedation and readmission to the intensive care unit (ICU) (5). Effective collaboration can have benefits for the health professional, the health care team, and the organization (14–16).

For the health professional, benefits include feelings of self-worth, competence, and importance. For the health care team, collaboration can create opportunities for clarification of interactive roles and to enhance respect for, and collegiality between, individuals of various disciplines. For the organization, collaboration can promote productivity, retention, and satisfaction of employees (4,17).

HEALTH PROFESSIONALS WITHIN THE ICU

Various medical professionals have an input in patient care within the ICU, including the critical care medical director, ICU attending physicians, and ICU fellows and residents. Medical professionals from outside the ICU also play an important role and include consultants, surgical attendings (18,19), residents, and other ancillary personnel.

ICU Director

The ICU is overseen by a medical director with demonstrated competence in the provision of critical care services; this person is often responsible for the administrative organization of the ICU—Critical Care Medicine—physicians. The director manages the administrative aspects of the unit, including the development and implementation of policies and procedures, review of the appropriate use of critical care resources, and education of unit staff. Together with the nurse manager, the medical director assumes ultimate responsibility for the safety and appropriateness of services provided in the setting. Consequently, the medical director plays an important role in guiding patient care during unstable clinical situations that require careful titration of therapy, such as multi-organ failure and resuscitation procedures. This responsibility includes the need to communicate regularly with other health professionals and the family about patient goals of treatment. Usually, the medical director has final authority over admission and discharge practices of the unit.

Critical Care Medicine Attending Physicians

Critical care attending physicians, the specialists who staff the ICU, are primarily accountable for the day-to-day unit and patient management responsibilities. These individuals have expert knowledge in pathophysiology, physiology, pharmacology, and the technical aspects of monitors and...
invasive equipment, as well as competence in managing critically ill patients. Critical care attending physicians provide a leading role in dealing with the sensitivities associated with dying patients and their families. Also important are attributes related to the latest research and quality improvement activities, as well as facilitating education among health professionals in the unit. In the absence of the medical director, it is the critical care attending physicians who make decisions relating to the admissions and discharges of patients.

**Critical Care Fellows**

Fellows are required to undertake a specified period of the critical care experience, usually a 1-year fellowship in which they work at least 9 months in a critical care environment (e.g., a neurologic, trauma, surgical, cardiac, or medical intensive care unit), with the remaining 3 months involving either allocation to a clinical area (e.g., respiratory care or trauma service) or conducting research relevant to critical care. Fellows have comprehensive knowledge about the medical histories, surgical and diagnostic procedures, and laboratory data and medications relating to all patients in the ICU. Together with the critical care resident, they provide this information on ward-round presentations and in discussions with other health professionals, including consultants, surgeons, and nurses. Fellows review assessment charts of complicated patients with residents and they guide residents in managing patients with respect to issues such as setting mechanical ventilation parameters, providing hemodynamic support and invasive monitoring, prescribing antibiotics, and managing adverse events. Critical care attending physicians assist fellows in making appropriate patient care decisions and providing them with greater input at the beginning of their training compared to later in the training year, at which point fellows are expected to make more independent decisions.

**Critical Care Residents**

Residents are junior members of the medical staff who rotate through the ICU to learn fundamental principles of treating critically ill patients. They collaborate with critical care fellows in collecting patient assessment data and formulating a management plan. During their rotation in the ICU, they develop beginning-level competencies in treating patients with complex health care needs. Residents give patient presentations during ward rounds, where they are provided with feedback on their comprehension and understanding of patient assessment, management, and evaluation of care.

**Critical Care Nurses**

Critical care nurses provide comprehensive skilled care to critically ill patients by maintaining a continual presence at the bedside. Their extensive knowledge and expertise enable them to recognize changes in patients’ clinical manifestations and implement strategies aimed at preventing worsening conditions and minimizing complications. They support patients and families by acting as their advocates and play an integral role in the decision-making process with the health care team. In the United States, critical care nurses may be certified through the American Association of Critical Care Nursing by undertaking specialized education and testing and are recognized as critical care registered nurses (CCRN). In other countries such as Australia and the United Kingdom, critical care nurses may complete specialized postgraduate critical care qualifications at a university.

A nurse manager of the ICU provides clear lines of authority for critical care nurses and is accountable for the delivery of good-quality patient care from the nursing staff. This health professional must ensure that nursing practices address key standards of care. Aside from expertise in current advances in the field, the nurse manager also has experience with health information systems, risk management, and health care economics.

**Advanced Practice Registered Nurses**

Advanced practice registered nurses who work within the ICU include certified registered nurse anesthetists, clinical nurse specialists, and certified nurse practitioners. Certified registered nurse anesthetists, in conjunction with physician anesthesiologists, manage patients before, during, and following procedures that require anesthesia. They conduct patient assessment and prepare the patient for anesthesia by prescribing preprocedure medications, such as sedatives, antiemetics, and antihistamines. They also administer and maintain intravenous and gaseous anesthesia to ensure proper sedation and pain management, oversee patient recovery from anesthesia, and manage patients’ immediate postoperative needs. Clinical nurse specialists conduct clinical education, consultation, research, and management. Certified nurse practitioners undertake direct patient care activities and research (20,21); their role in the care of ICU patients—partnered with and supervised by critical care medicine attendings—can be significant. Advanced practice registered nurses perform many of the interventions involved with conventional nursing practice. They also function autonomously and in collaboration with other health professionals in an effort to produce optimal patient outcomes. Compared to other critical care nurses, those in advanced practice roles require a greater depth and breadth of knowledge and a greater understanding in interpreting patient data and undertaking complex interventions. Advanced practice registered nurses are required to have completed additional postgraduate work, usually at master’s level.

**Physician Assistants**

Physician assistants work under the supervision of a physician. They are trained to perform patient examination, to order and interpret clinical tests and imaging, to diagnose conditions, to order treatments, to develop management plans, to assist in clinical procedures, to perform minor surgical procedures, and to refer to medical specialists. Physician assistants complement and extend the critical care services provided by physicians. The role of physician assistant is very popular in the United States, and it is also practiced in other countries such as the United Kingdom, Canada, Australia, and Russia. The scope of practice for physician assistants generally varies between and within countries, and is largely directed by supervising physicians. Physician assistants and certified
nurse practitioners—although somewhat differently trained—function interchangeably in the ICU.

**CONSULTANTS OUTSIDE THE ICU**

Consultants from services outside the ICU are specialists who provide important information about particular facets of patient management to the critical care team. To ensure time is used appropriately and constructively, the critical care team should discuss the issue of concern beforehand and provide a rational argument—and if possible a specific question to be answered—in seeking a consultant’s opinion. It is usually the attending physician’s role to write the consultant referral. Any suggestions provided by consultants should be discussed with the critical care team before treatment is implemented.

**Surgical Attendings**

Surgical attendings are surgeons who play an important role in managing surgical procedures required by critically ill patients. They interact with patients and their families about preoperative, intraoperative, and postoperative care, as well as long-term follow-up in terms of ensuring optimal recovery from surgery. Although surgical attendings conduct daily rounds in the ICU, specific aspects of patient management usually reside with the critical care team. In the context of the surgical team, surgical residents play much the same role as do critical care residents.

**Pharmacists**

Pharmacists are integral to patient care in a way that extends well beyond their traditional role of supplying and distributing medications. With the increasing sophistication of medications available, their role encompasses the education of physicians, nurses, and other health professionals in preparing, prescribing, administering, and monitoring medications for critical care patients. They have extensive knowledge about pharmacokinetics and pharmacodynamic principles associated with severe illness, poisoning and drug intoxication, sedation practices, pain relief, and antibiotic use.

Pharmacists also make up various medicinal preparations. For ICUs, these preparations commonly include total parenteral nutrition and the incorporation of cytotoxic agents, antibiotics, potassium, or opioids into intravenous fluids. These preparations are made up in laminar flow cabinets of hospital pharmacy departments under sterile conditions.

One of the most important tasks of pharmacists is to ensure medications are administered in a manner that promotes therapeutic efficacy and minimizes adverse outcomes. More specifically, they help physicians and nurses by coordinating the development, implementation, and evaluation of medication protocols or guidelines. For this reason, pharmacists attend ward rounds and team meetings to familiarize themselves with patients’ medical conditions and how these affect medication therapy. The Society of Critical Care Medicine has released a position paper about the scope and practice of critical care pharmacy practice and service (22) and a pharmacy taskforce has produced an opinion paper on training and credentialing pharmacy services in critical care (23); critical care pharmacists are integral members of the ICU rounding team.

**Respiratory Therapists**

Respiratory therapists are involved with maintaining ventilation equipment and monitoring the airway management of critically ill patients. Airway management may include the provision of oxygen therapy, mechanical ventilation, and aerosol medication therapy. Respiratory therapists also titrate ventilation parameters to suit the breathing and hemodynamic patterns of patients, formulate weaning procedures, and provide patient and family education. Although respiratory therapists are well established in North America, they rarely exist in the United Kingdom, Europe, Australia, or Asia, where nurses are responsible for patients’ respiratory equipment and clinical management of respiratory function in collaboration with physician consultation.

**Social Workers**

Social workers are integral members of the ICU team, providing a conduit to provide information about the ICU patient’s management plans to family members. They possess specialized knowledge about health policies and services, social welfare systems, and community resources. With this knowledge to guide their practice, social workers are important advocates for critically ill patients and families. Examples of activities conducted by social workers include assisting in the adjudication of family–patient–health care team disagreements, leading team discussions in root cause analyses of adverse events, locating temporary accommodation for family members during patients’ stay in hospital, and providing resources to help cover health care costs.

**Occupational Therapists**

Occupational therapists evaluate the impact of illness on the activities of critically ill patients at home, in work situations, and during recreational situations. They work synergistically with other health professionals to reduce patients’ physical and psychological disabilities. Before patients are discharged, occupational therapists often visit the home environment to make comprehensive assessments of the current facilities and changes required to accommodate the patients’ needs.

**Physical Therapists**

Physical therapists assess and treat critically ill patients with a temporary or permanent physical disability, with the aim of achieving the highest degree of recovery. Treatment modalities used by physical therapists include exercise, mobilization and manipulation, massage, splinting, the application of hot and cold compresses, suctioning of respiratory secretions, and electrical stimulation. Conditions treated include birth deformities, fractures, back strain, spinal injuries, strokes, and multiple sclerosis. Rehabilitation after surgery, such as open heart, orthopedic, and abdominal surgery, is another area of responsibility. An important and growing area for physical therapists is early mobilization of critically ill patients as a strategy for reducing muscle atrophy and improving muscle strength (24).
Nutritionists

The aim of nutritionists is to improve the nutritional health and promote recovery of the critical care patient. Nutritionists possess detailed knowledge of food principles that apply to health and disease states, the biochemical properties of food, the mechanisms underlying food absorption, metabolism, digestion and elimination, and the indications for nutritional support. They also have an in-depth understanding of the interactions of particular food products with medications commonly used in critical care.

Nutritionists play an important role in the decision to introduce parenteral or enteral feeding or other forms of nutrient supplementation for critically ill patients. Critically ill patients are susceptible to malnutrition as they undergo invasive procedures and diagnostic tests, and disease states may alter the digestive process of nutrients (25). In collaboration with physicians and nurses, nutritionists determine the precise requirements for energy, protein, vitamins, minerals, essential fatty acids, electrolytes, and water to be administered through parenteral or enteral feeding. Enteral feeds are usually made in a hospital diet kitchen, the process of which is supervised by nutritionists. Conversely, critical care pharmacists prepare parenteral nutrition solutions using sterile laminar flow environments.

FORMS OF COMMUNICATION

Health professionals interact with each other using different forms of communication, depending on the intended purpose. These forms of communication include critical care ward rounds, clinical handovers (hand-offs), and communication concerning admission and discharge of patients. Effective collaboration using these forms of communication is essential for the overall function of ICUs.

ICU Ward Rounds

ICU ward rounds are an important forum for health professionals to come together and discuss the daily goals of care. The goals of care serve various functions, which include recognizing patient problems, sharing information, initiating treatment, evaluating the effectiveness of changes in treatment, and increasing learning opportunities for the critical care staff (26). Ineffective patient care and decision-making can occur if the goals of care are not communicated clearly, leading to increased costs and the possibility of medical errors (27).

ICU rounds should be multidisciplinary and include various personnel in addition to the critical care physicians: the nurse unit manager, the specific nurse assigned to each patient, the pharmacist, the respiratory therapist, and others such as the social worker and nutritionist. Although some part of the ward round may be undertaken away from the bedside as the social worker and nutritionist. Although some part of the ward round may be undertaken away from the bedside, since the ward round may be undertaken away from the bedside as the social worker and nutritionist. Although some part of the ward round may be undertaken away from the bedside, since the health care team must also be present at the bedside, since the social worker and nutritionist. Although some part of the ward round may be undertaken away from the bedside, since the pharmacist, the respiratory therapist, and others such as the social worker and nutritionist, the specific nurse assigned to each patient, the pharmacist, the respiratory therapist, and others such as the social worker and nutritionist.

Usually, the critical care fellow presents each patient with feedback provided by the critical care attending physician. In this manner, the ward round provides a formalized process of education and training for less-experienced medical personnel. It is also an opportunity for other health professionals to provide their feedback on various perspectives of the patients’ care, including wound management, nutrition, and medication management. The critical care physician is then able to direct discussions and debates for planning patient care.

The ward round should be a structured process occurring at a designated time each day. Scheduled ward rounds allow health professionals to plan their attendance despite unexpected situations that can occur. Organizing the ward round as a haphazard process, where it is conducted at different times of day, may mean that certain health professionals will not be able to attend (28). A lack of representation at ward rounds by particular disciplines may adversely affect the range of opinions and possible therapies for patients. A well-organized ward round is more likely to become a creative space in which health professionals of different disciplines can contribute to developing strategic plans for patient care and to sharing openly their clinical activities with other individuals.

The patient presentation should be concise and clear without redundant and irrelevant information, such as unrelated details about the patients’ past medical history or superfluous explanations of daily activities. There are several steps that should be followed to ensure the patient presentation functions smoothly (Table 5.1).

To improve the quality of care, a daily goals sheet can be used during ward rounds, with input from all health professionals. A daily goals sheet is a document that is completed during ward rounds and posted at the bedside of each patient.

It summarizes the plan of prioritized activities for a patient

<table>
<thead>
<tr>
<th>TABLE 5.1 Steps to Take for an Effective Ward Round</th>
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<tbody>
<tr>
<td>• Know who the patient is in terms of the patient’s name, age, gender, and reason for admission to critical care.</td>
</tr>
<tr>
<td>• Summarize past medical treatments since admission in terms of when they happened, where they happened, and patient response. It may help to document information in the form of clear, concise points to which you can refer during the presentation. This process will enable you to update your colleagues quickly without having to look for information in voluminous medical histories.</td>
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<tr>
<td>• Assess current patient problems in an organized manner using a body systems approach.</td>
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<tr>
<td>• Discuss the plans for the day, including anticipated patient response.</td>
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<tr>
<td>• Ensure the patient’s medical record and radiographs are readily available.</td>
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<tr>
<td>• Be sure that all medication orders and observation charts are readily accessible at the bedside.</td>
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<tr>
<td>• All key pathology investigation results should be available. The pathology laboratory may need to be contacted before the ward rounds commence to obtain all necessary results.</td>
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<tr>
<td>• Use the presentation as a time to seek information from members of the health care team to find out more about your patient’s needs (e.g., social workers, physical therapists).</td>
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<td>• Ensure the relevant health professionals know about changes made to treatment and the role played by the individual in this process.</td>
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<tr>
<td>• Determine if the patient’s family members need to be contacted either during or following the ward round in relation to treatment decisions. Make arrangements to contact the family members for consultation or consent for procedures if needed.</td>
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during the course of a day. Information recorded on the goals sheet depends on specific characteristics of the unit (Table 5.2). Since each sheet is a work-in-progress, it is usually discarded the day after use and not included in the patient’s medical record. After introducing a daily goals sheet, past research has shown a significant reduction in the length of intensive care stay of patients from 6.4 to 4.3 days (27), as well as improved identification of new patient care issues and an individualized approach to patient management (29).

**ICU Clinical Handover**

The clinical handover is a verbal form of communication involving health professionals from one working shift communicating with those of the oncoming working shift. The purpose of the clinical handover is to enable effective transfer of responsibility and accountability from one health professional to another. While clinical handover has been shown to be a major source of communication failure and serious adverse events (30), health professionals rarely receive training in handover processes (31). Over recent years, standard operating procedures for clinical handover have been developed, which are tools (Table 5.3) or mnemonics that enable systematic communication of information with the ultimate goal of reducing communication failure and adverse events (32). A common clinical handover tool is the SBAR, which involves describing the patient’s situation, background, assessment, and recommendation of care (33). Use of these tools helps to ensure important components of the patients’ management and goals of care are addressed at clinical handover (34).

Another important aspect of clinical handover is attempting to involve patients and family wherever possible (35). Patient and family involvement in handover can assist in reducing communication breakdown and help to promote patient-centered care (36). Patients can participate in the conduct of clinical handover when they are nearing discharge from the ICU, which is a time they are likely to be conscious and alert.

**Admission and Discharge Practices of ICUs**

Consensus guidelines have been developed to provide general information about criteria and procedures for admission and discharge practices (37). These guidelines detail objective clinical parameters to assist health professionals in their decision-making about patient flow to and from the unit. Aside from consensus guidelines, organizational factors, which are closely linked to collaborative care, have been examined for associations between admission and discharge practices of critical care settings and patient mortality (38–40). Such organizational factors include open and closed systems and time of day.

**OPEN AND CLOSED SYSTEMS**

An organizational factor that has been examined in terms of admission and discharge practices is the open or closed system of care (19). In the open system, various health professionals are present in the unit, but physicians directing patient care have obligations at a site separate from the critical care setting, such as the operating room, or inpatient or outpatient areas. A physician with expertise in critical care may or may not be involved to assist with management of care in an open system arrangement. In a closed system, care is provided by a critical care–based team of physicians, nurses, pharmacists, respiratory therapists, and other health professionals (41).

In a cohort study, the medical records were examined of all consecutive high-risk surgical patients admitted to an ICU from 1996 to 1998 using an open format, and from 2003 to 2005 using a closed format (39). Mortality of patients was 25.7% in the open format group and 15.8% in the closed format group ($p = 0.01$). Mortality relating to a cardiopulmonary complication was higher in the open format group (12.2%) compared with the closed format group (8.3%; $P = 0.02$). Results suggest that a closed format was a more favorable environment than an open format in effort to minimize the effects of high-risk surgery.

**TIME OF DAY**

Another important organizational factor for admission and discharge practices is time of day, with specific attention to weekdays versus weekends and daytime versus nighttime. A cohort study of all 23,134 emergency admissions over a 3.5-year period showed that weekend critical care admissions
were associated with an increased adjusted mortality compared with weekday admissions (odds ratio [OR] 1.20, 95% confidence interval [CI] 1.01–1.43) (42). The adjusted mortality was similar for admissions made after business hours compared with those made during business hours (OR 0.98, CI 0.85–1.13). On the other hand, the adjusted risk of death was higher after business hours as compared with during business hours (OR 6.89, CI 5.96–7.96). The time of discharge from the ICU was not associated with additional hospital mortality. In another study involving propensity score matching analysis of 2,891 consecutive patients, nighttime admission was associated with elevated risk of mortality (OR 1.73, CI 1.12–2.74, \( P = 0.01 \)) (38). These findings provide evidence of the importance played by the organization of critical care services with respect to time of day.

**FUNCTIONING AS A TEAM**

The integral functioning of a critical care team goes beyond the interactions of health professionals. It also involves developing an understanding of unpredictable events that can lead to clinical crises. Providing support for new team members, monitoring and observing patients for changes in clinical outcomes, and facilitating the involvement of family members are crucial facets for the foundation of a successful collaborative unit.

**New Team Members**

Specialized health care requires a tailored form of orientation for health professionals entering the critical care setting. Experienced clinicians in critical care are faced with the challenge of how to deliver important information to new team members to facilitate effective learning. This challenge is compounded by difficulties associated with a shortage of appropriately trained nurses and physicians. Comprehensive preparation through orientation programs has been shown to be a vital component for retaining health professionals (43).

Orientation of newly employed health professionals to ICUs should be viewed as a shared responsibility among senior health professionals, educators, and new staff members. Sharing of responsibilities improves the effectiveness of the orientation process because it allows more efficient completion of activities related to the orientation, promotes collegial relationships, and links knowledge with practice. Orientation should occur through a structured program with defined goals that are agreed on by all individuals concerned (44).

The new staff member needs to be matched with a primary mentor and a secondary mentor, based on their discipline backgrounds, past experiences, attitudes, and learning styles. This matching process should be a strategic rather than a random choice to stimulate critical thinking, encourage open communication, and stimulate further professional development. The designation of a mentor based on random choice often leads to the use of multiple mentors, leading to inconsistent and confusing messages being conveyed (45).

Learning opportunities should be structured using a combined learner-led, theoretical, and clinical program (43). Such a model facilitates the transfer of knowledge to the practice setting. Theoretical reference material provided to the new staff member should include information about unit policies and protocols, roles and responsibilities of various members of the health care team, and the pathophysiology, assessment, and treatment relating to common patient conditions observed in the unit.

Although new staff members are very likely to have a rich array of experiences, experienced mentors are also influenced by the critical care culture in which they are positioned. As a result, new staff members and experienced mentors could be accustomed to performing activities their own way, which may lead to conflict. New staff members may feel that their learning needs and past experiences are not adequately recognized while mentors may feel that their advice is being ignored. By identifying potential problems from the outset, the orientation process can be more individually adapted to the team member’s specific needs, the focus of which is becoming part of the unit. Developing a sense of belonging can help to solidify collaboration between the new staff member and other health professionals.

**Monitoring and Observation of Critically Ill Patients**

Most patients in critical care require constant monitoring and observation, such as patients with multisystem organ failure, multiple trauma, and adult respiratory distress syndrome. The nurse:patient ratio in many parts of the world is generally 1:2 (18). However, in Australia, the nurse:patient ratio for carrying out nursing activities in ICUs is 1:1. As nurses maintain a constant presence at the bedside, they play a critical role in undertaking regular monitoring of patients, assist in the early diagnosis of impending problems, and recommend appropriate interventions to be administered.

Patients in critical care require clinical parameters to be measured hourly or more frequently if these parameters change quickly. Also important is the close observation of patients through physical methods of inspection, palpation, percussion, and auscultation. Comprehensive judgment should be used in interpreting the significance of information obtained to avoid the complacency that could occur with repetitious documentation of clinical parameters and observations.

Nurses’ knowledge in conducting patient monitoring and observation is largely constructed by their ongoing experiences and education in the critical care context. On the other hand, medical residents and critical care fellows who work in critical care for a limited period have to rely on past experiences and knowledge as their major sources of information, which may not necessarily be compatible with the types of decisions required in critical care. As an illustration, in an ethnographic study on professional relationships (46), a critical care fellow with previous experience in anesthesics was confronted by a situation involving a patient who had gone to the operating room for a duodenal ulcer repair and returned to the critical care setting. Within an hour of the patient’s return, the bedside nurse, who was a clinical nurse specialist, reported to the fellow that the patient was restless, cold, and not breathing well with the ventilator. Based on his past anesthetic experience, the fellow advised the nurse to extubate the patient. The nurse drew on her knowledge of similar patients in critical care and believed that the patient needed additional sedative and analgesic treatment rather than removal of the endotracheal tube. She presented the situation to the critical care attending who agreed with her view and requested that the patient receives further analgesic and sedative medications (5).
Critical care attending physicians are ultimately responsible for less-experienced medical personnel; however, these more-experienced physicians may be present in the unit only during discrete times of the day. Due to their lack of availability, critical care attending physicians may be able to address only a small portion of the educational needs of junior medical team members in explaining the significance of a patient’s clinical parameters and observations. Instead, due to their constant presence in the environment, nurses provide a substantive component of the educational needs of critical care fellows and residents in interpreting data obtained from patient monitoring and observation.

Nurses and physicians collectively provide valuable knowledge in making decisions about information obtained from patient data. It is, therefore, important that any rigid role boundaries between them are broken down (9). Maintaining rigid role boundaries creates distrust and disrespect between nurses and physicians, thereby hindering future progression of informed decision making. In effect, nurses need to be accepted as the “eyes and ears” of all levels of the critical care medical team to extend their perceptual capabilities.

Communication with Family Members

The admission of a critically ill patient is a stressful time for families, especially in the current health care environment of advanced technology, greater sophistication of interventional treatment, and multiple health professionals providing care. This critical care event can adversely affect the functioning of family members and their ability to communicate and understand complex information (47). If miscommunication is allowed to occur, the likely outcomes are care fragmentation, family alienation, and the development of distrustful relationships between family members and health professionals, and among health professionals themselves. Such disagreements can result in poor-quality patient care. Collaboration among health professionals is required for the comprehensive support and involvement of family members. As nurses are continuously present at the bedside, they need to interact regularly with other health professionals involved in direct patient care to synthesize information in a way that can be easily communicated to family members (27).

In a descriptive study involving interviews with family members, and observations of interactions between family members and intensive care staff, Söderström et al. (47) found that initial impressions had a sustained effect on family members and influenced future interactions. Family members who understood explicit information and implicit messages were open in their interactions with staff, adjusted well to the critical care environment and were more accepting of the situation. In other words, a mutual understanding existed between these family members and critical care staff. Explicit information involved details about the rules and policies of the unit, the condition of the patient, and how to behave in front of the patient. There were also implicit messages inherent in the information. For example, the message “you can visit the patient freely” meant “as long as you do not disturb us in our work.” In addition, the message “you can ask questions freely” was conveyed “as long as we find them relevant” (47). Unfortunately, some family members did not fully understand either the explicit information or the implicit messages, and consequently, they either became withdrawn and quiet, or more vocal in their communication by asking many questions. For these individuals, there was a mutual misunderstanding with staff. These family members did not adjust well to the environment and were either ignored or insulted by critical care staff.

It is important that nurses and physicians reflect on how they communicate with family members at initial meetings and in future interactions. Mutual understanding is more likely to occur if information is presented in a clear and unambiguous way. Family members need to have questions answered honestly, and they require regular communication about the patient’s progress and prognosis, treatment received, and changes in patient condition (48). They need to be reassured that health professionals care about the patient and support family members in their coping strategies. Family members should be able to speak with the physician and bedside nurse daily, have flexible visiting hours, be able to assist with simple patient care if desired, and have a place where they can be alone.

SUMMARY

Underlying a health care system that is facing pressure to improve efficiency are critical care services, which are predicted to become more important as the population ages, as the boundaries within hospital areas and between health professionals become blurred, and as more specialized technology develops over time. Health professionals need to adapt their approach to collaborative care in a complex and ever-changing health care climate. By themselves, sophisticated technology and treatment are not sufficient to address the needs of patients and families—positive and conducive relationships are the critical drivers for improved care.

Key Points

- Collaborative care brings about positive outcomes for patients, their families, health professionals, the health care team, and the health care organization.
- The critical care setting is a complex organizational system comprising various health professionals who need to function as an interdependent team.
- The challenge is to understand how the roles and functions of health professionals fit with those of other professions, with the aim of developing solid working relationships.
- Health professionals need to interact with each other effectively using different forms of communication, including the ward round and clinical handover.
- The ward round needs to function as a structured process, occurring at a formally designated time every day.
- A daily goals sheet should be used during ward rounds, with input from nurses, physicians, and other health professionals to summarize the plan of prioritized activities for a patient during the course of a day.
- The clinical handover should be considered a time in which health professionals can develop strategic plans for patient care and share openly their clinical activities with each other.
- Organizational factors such as the presence of an open or closed unit and time of day can impact on collaborative
These factors can influence patient outcomes in relation to critical care admission and discharge.

- The integral functioning of a critical care team goes beyond the interactions of health professionals.
- Comprehensive preparation through orientation programs is a vital component for retaining newly employed health professionals in the ICU and bringing about collaborative care.
- Because of their constant presence, nurses provide a substantive component of the educational needs of critical care fellows and residents in interpreting data obtained from patient monitoring and observation.
- Collaboration among health professionals is required for the comprehensive support and involvement of family members of patients.

References