CHAPTER 6

Adult Acute and Intensive Care in Hospitals

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Introduction

Acute care hospitals have specialized staff and equipment to provide treatment to patients who present with a broad range of acute and chronic illnesses, injuries, and medical conditions. They vary in size, but all provide care on a continuous 24/7 basis. Larger, specialized acute care hospitals are sometimes known as tertiary hospitals. They employ a team of health care professionals, administrators, and support workers and may specialize in trauma and the diagnosis and treatment of complex diseases and conditions.

Health care providers in local or regional acute care hospitals conduct assessments, carry out procedures, attend to patients and family members, and maintain hospital records and protocols. Most critically ill patients are housed in intensive care units (ICUs) where they receive continuous monitoring by critical care nurses and a wide range of life-sustaining treatments delivered by interprofessional teams (Fairman, 1992). Less critically ill patients are treated on "step-down" and general care units, where the patient-nurse ratio is greater, and the intensity of care is reduced. Emergency departments in acute care hospitals diagnose and initiate treatment of acute conditions caused by accidents and injuries, illness, and disease.

Many acute care hospitals function like freestanding municipalities because they require large, complex infrastructures in order to (a) coordinate the delivery of medical care, (b) house and feed patients and staff, (c) implement medical protocols, (d) manage resources, (e) monitor infection control and safety issues, (f) maintain administrative and financial records, and (g) continually strive to establish and maintain relationships with consumers and providers, as well as with outside organizations and agencies. Their funding comes from different sources, including the public sector, health organizations (for-profit or nonprofit), health insurance companies, patients and their families, and charities.

Smaller community and rural hospitals often provide critical health care access to local residents and to those living in rural areas (American Hospital Association, 2013). Approximately 35% of hospitals in the United States are considered rural hospitals. Large hospitals (≥500 beds) make up only 5% of all hospitals in the United States (Centers for Disease Control and Prevention, 2011).

The following is an example of the size and complexity of a large academic medical center. The University of Iowa Hospitals and Clinics (UIHC) in Iowa City, Iowa, is the only comprehensive academic medical center in the state and a regional trauma center with a large emergency department. In 2012, the UIHC employed 1,548 physicians, residents, and fellows, and 6,673 nonphysician employees, including 1,845 professional nurses. The emergency department had 59,889 patient visits, and there were 32,087 acute care admissions. The UIHC has 711 staffed beds, with an average daily census of 544 patients and an average length of stay of just over 6 days. It also has seven intensive care units with 157 beds (Neonatal ICU, Pediatric ICU, Medical ICU, Cardiovascular ICU, Surgical & Neuroscience ICU, Burn ICU, and Respiratory Services ICU). Patients are typically transferred from an ICU to step-down units when their status improves, or, conversely, transferred from other care units to an ICU if their condition deteriorates or they require ventilator support. In 2012, UIHC provided 25,967 days of ventilator care.

Researchers have repeatedly shown that effective patient-provider communication plays an important role in the medical outcomes of hospitalized patients, as well as in measures of patient and caregiver satisfaction, patient safety, quality of care, and utilization factors (Gallagher, Porter, Monuteaux, & Stack, 2013; John-Baptiste et al., 2004; Karliner et al., 2012; Lindholm, Hargraves, Ferguson, & Reed, 2012; O'Halloran, Grohn, & Worrall, 2012; Rogers, Martin, & Rai, 2014). Because hospitals are expected to be proactive in ensuring that patients are not subjected to "avoidable" harm, establishing good lines of communication between patients, health care providers, and hospital staff is widely recognized as essential.

Over the years the University of Iowa Hospitals and Clinics (UIHC), the UPMC–University of Pittsburgh Medical Center, Boston's Children's Hospital, the Mayo Clinic, and others have taken proactive steps to address the communication needs of their patients more systematically.

The Importance of Effective Patient-Provider Communication in Hospitals

Over the course of a day, hospitalized patients and family members may need to interact with physicians, nurses, physical therapists, occupational therapists, speech-language pathologists, pharmacists, medical technicians, dietary staff, social workers, pastoral care providers, housekeeping staff, and volunteers. The nature of these interactions often differs dramatically from the kinds of conversations that occur during a routine visit to a doctor's office or outpatient clinic. For example, hospital-based communications often take place between people who have recently met or are meeting for the first time, come from very different backgrounds, and may be under significant stress and time constraints. Topics discussed during medical encounters in hospitals often relate to assessing the patient's condition, obtaining a health history, reducing pain, administering medications, describing and discussing symptoms, and explaining procedures. These conversations, while routine to providers, are often unfamiliar and perhaps confusing to patients and their families.

In 2012, The Joint Commission, an accrediting body for hospitals in the United States, formally recognized the critical nature of effective communication in hospitals and promulgated a set of standards that hospitals must meet. As shown in Table 6–1, The Joint Commission Standard *Advancing effective communication, cultural competence, and patient- and family-centered care* requires that hospitals develop ways to identify and address patient communication needs, offer professional language access services, deliver information in a manner patients can understand, provide access to a support person 24/7, and collect information on their patients' language and communication needs (The Joint Commission, 2010).

A common misperception of patients, family members, and providers is that communication channels work effectively during medical encounters. Health care team members may too often assume that patients have understood them, and patients tend to believe health care professionals have "heard" and comprehended their complaints, symptoms, and concerns. Research suggests, however, that this is often not the case, especially when patients have disabilities that make it difficult for them to speak, write, understand, or remember what providers are saying. Also, an increasing number of patients do not speak or understand the same language of hospital providers. Patients may come from very different cultural and religious backgrounds, sexual orientations, and past experiences. Many patients have limited health literacy and may know little about hospital forms, procedures, and policies. These patient groups often have difficulty following discharge instructions, a major cause of unnecessary hospital readmissions (Alberti & Nannini, 2013; Halverson et al., 2014; Karliner et al., 2012; Lindholm et al., 2012; Regalbuto, Maurer, Chapel, Mendez, & Shaffer, 2014; Schell, 2014). Also, poor patient-provider communication is a major contributing factor to adverse drug reactions after discharge from a hospital (Forster, Murff, Peterson, Gandhi, & Bates, 2003).

Table 6–1. *The Joint Commission*

Identifying and Addressing Patient Needs
Standard PC.02.01.21
The hospital effectively communicates with patients when providing care, treatment, and services. This standard emphasizes the importance of effective communication between patients and services.
Elements of Performance (PC.02.01.21)
1. The hospital identifies the patient's oral and written communication needs, including the patient's preferred language for discussing health care. Note: *Examples of communication needs include the need for personal devices such as hearing aids or glasses, language interpreters, communication boards, and translated or plain language materials.*
2. The hospital communicates with the patient during the provision of care, treatment, and services in a manner that meets the patient's oral and written communication needs.

continues

Table 6–1. *continued*

Providing Professional Language Access Services and Providing Information in a Manner Patients Understand
Standard RI.01.01.03 The hospital respects the patient's right to receive information in a manner he or she understands. Elements of Performance (RI.01.01.03) 2. The hospital provides language interpreting and translation services. Note: *Language interpreting options may include hospital-employed language interpreters, contract interpreting services, or trained bilingual staff. These may be provided in person or via telephone or video. The hospital determines which translated documents and languages are needed based on its patient population.* 3. The hospital provides information to the patient who has vision support, speech, hearing, or cognitive impairments in a manner that meets the patient's needs.
Access to a Support Person
Standard RI.01.01.01 The hospital respects, protects, and promotes patient rights. Element of Performance (RI.01.01.01) 28. The hospital allows a family member, friend, or other individual to be present with the patient for emotional support during the course of stay. Note: *The hospital allows for the presence of a support individual of the patient's choice, unless the individual's presence infringes on others' rights, safety, or is medically or therapeutically contraindicated. The individual may or may not be the patient's surrogate decision maker or legally authorized representative.* 29. The hospital prohibits discrimination based on age, race, ethnicity, religion, culture, language, physical or mental disability, socioeconomic status, sex, sexual orientation, and gender identity or expression.
Collecting Information on Language and Communication Needs
Standard RC.02.01.01 The medical record contains information that reflects the patient's care, treatment, and services. Elements of Performance (RC.02.01.01) 1. The medical record contains the following demographic information • The patient's name, address, date of birth, and the name of any legally authorized representative • The patient's sex • The patient's communication needs, including preferred language for discussing health care. Note: *If the patient is a minor, is incapacitated, or has a designated advocate, the communication needs of the parent or legal guardian, surrogate decision maker, or legally authorized representative are documented in the medical record.*

Note. Adapted from The Joint Commission (2010), Appendix C.

Patient Bill of Rights

A key element of effective care in hospital settings requires that patients be able to communicate effectively with care providers so that doctors and nurses know when to adjust medications, check intravenous (IV) lines, perform respiratory support procedures, deal with urinary and bowel issues, position patients in their beds, and so on. The *Patient's Bill of Rights* (American Hospital Association) is posted throughout most, if not all acute care facilities in the United States and can be accessed at http://www.aha.org/advocacy-issues/communicatingpts/pt-care-partnership.shtml. It addresses informed consent, refusal to treat, power of attorney, and end-of-life treatment directives. It specifically encourages patient-centered care and ~~each patient's~~ participation in own treatment.

To remain active and engaged, some patients need communication supports. While specific accommodations are clearly mandated and regulated for some groups (e.g., people who are deaf and use sign language and people with limited English proficiency), they are not specified for other groups (e.g., people with cognitive impairments, speech and language impairments). In fact the *Patient's Bill of Rights* fails to specify explicitly the necessity of communication supports and accommodations for patients with existing and acquired communication impairments beyond American Sign Language and non-English language translation/interpretation.

Sentinel Events

Communication barriers are among the major causes of adverse events in acute care hospitals today. This includes, but is not limited to, communication breakdowns or failures between health care providers and patients. The Joint Commission Sentinel Events Report (The Joint Comission, 2013) identified three primary causes of adverse events in hospitals: human factors, leadership failures, and communication breakdowns. Also, data from these reports from 2004 to 2013 revealed that problems with communication were strongly associated with events that caused patient deaths and permanent damage to patients. See http://www.jointcommission.org/assets/1/18/Root_Causes_by_Event_Type_2004-2Q2013.pdf.

Researchers studying adverse events caused by medication-related errors have noted that ICU patients are placed at risk when they are less able to actively participate in their care (Bates ~~,~~ et al., 1995; Cullen et al., 1997). Data also suggest that patients who have difficulty communicating are three times more likely to experience an adverse medical outcome than other patient groups (Bartlett, Blais, Tamblyn, Clermont, & MacGibbon, 2008). Investigators indicate that between 44% and 63% of reported injuries were preventable, observing that more education and safety protocols are needed to achieve the Institute of Medicine target of a 50% reduction in harm (Kohn, Corrigan, & Donaldson, 1999). Although more recent studies suggest a decrease in adverse events (~~that between~~ 13.5% ~~and~~ 18% of hospitalized patients have experienced an adverse event that caused temporary or serious harm), the incidence of adverse events is still too high (Landigran et al., 2010; Levinson, 2010).

Communication Vulnerable Patients

Zubow and Hurtig (2013) reviewed de-identified (anonymous) medical records of all conscious inpatients over the age of three at University of Iowa Hospitals and Clinics to determine the percentage of their inpatient population who had medical conditions that (a) restricted their ability to summon a

nurse (nurse call) and/or (b) restricted their ability to speak with care providers because they required mechanical ventilation (e.g., spinal cord trauma, cardiopulmonary diseases, stroke, motor neuron disease, facial trauma). To assure their sample response rates were stable, the researchers examined inpatient data for two, 7-day periods, separated by 6 months.

As shown in Table 6–2, 33% of conscious patients in ICUs and 14% of patients on other care units were unable to access or activate the nurse call system. In addition, 33% of patients in ICUs and 7% of patients on other care units were unable to use their natural speech because of placement of endotracheal tubes and tracheostomies. A substantial number of patients were not able to activate a nurse call button or speak. The percentages of pediatric patients and adult ICU patients needing assistance were comparable.

Thomas and Rodriguez (2011) reviewed all ICU patients present on randomly selected days, excluding patients with a history of speechlessness and those with preexisting use or the inability to use adaptive communication devices. They reported that 18.4% of adult ICU patients were in need of adaptive communication devices. Happ and her co-authors (2015) examined electronic medical data from six adult ICUs across two UPMC hospitals in Pittsburgh, Pennsylvania, and reported that more than half (53.9%) of patients who were mechanically ventilated for two or more days met the basic criteria for being in need of communication supports (awake, alert, responsive, or attempting to communicate during at least one 12-hour nursing shift).

Although the findings among these three studies reflect differences in sampling procedures and data collection methods, what is readily apparent is that a significant number of patients in ICUs and other hospital care units are communication vulnerable. The need is clearly documented, as is the requirement that hospitals identify, respond to, and ameliorate communication problems as they occur.

Patients with limited English proficiency and those who are deaf also face significant communication barriers. Unlike those with other communication vulnerabilities, however, hospitals are being held to standards, laws, and regulations that require them to inquire about a patient's preferred language and provide access to certified interpreters (The Joint Commission, 2010). To get a sense of the utilization of interpreter services in a

Table 6–2. *Conscious Patients Over the Age of Three Who Were Unable to Access the Nurse Call System or Speak Without Intervention at UIHC*

	Number of Patients (Daily Average)	***Percentage (%) of Patients Unable to Access Nurse Call***	***Percentage (%) of Patients Unable to Use Speech***	***Percentage (%) of Patients Unable to Access Nurse Call Who Also Could Not Use Their Speech***
Intensive care units	91	33	33	19
Non-intensive care units	386	14	7	1

Note. From Zubow and Hurtig (2013). Reprinted with permission from Richard Hurtig.

rural state versus a large metropolitan area, we compared two programs. Tufts Medical Center's Interpreter Services Program reported providing 69,672 services in 2012 (inpatient and outpatient). A majority of language services (65%) were face-to-face encounters. Phone interpreters accounted for 34%. Most patient requests were for Chinese or Vietnamese interpreters. (Note: Tufts is located near Chinatown in Boston, Massachusetts.) The Tufts Interpreter Services Program translates regulatory and teaching tools into multiple languages, participates in rounds, and provides language charts on all units. Their patient-staff communication aid booklets, *While Awaiting the Arrival of the Interpreter,* are bilingual (i.e., in English and in 10 target languages: Arabic, Bosnian/Serbo-Croatian, Chinese, Haitian-Creole, Italian, Khmer/Cambodian, Portuguese, Russian, Spanish, and Vietnamese). They are used while awaiting the arrival of an interpreter or during interactions when patients and staff exchange very simple, basic routine information.

The Interpreter Services Department at UIHC reported 14,568 services for 46 different languages between June 2013 and May 2014. Staff interpreters provided 61% of the services and the Language Bank of "as needed" interpreters provided 39%. Requests for Spanish accounted for most (73%) requests. ASL/Sign interpreting was the second most requested service. Table 6–3 presents the breakdown for the nine most commonly requested languages at UIHC.

Psychological Impact of Communication Vulnerability

The physiological, cognitive, and psychological stress of a critical illness can cause and prolong symptoms of agitation, anxiety, depression, panic, and cognitive impairment. Patients commonly report feeling helpless and a loss of control in hospitals unless they can communicate effectively with caregivers (Carroll, 2004; Magnus & Turkington, 2006;

Table 6–3. *Most Commonly Requested Language Interpreting Services at UIHC (2013–2014)*

Language	Number of Services Provided	Percent of Services Provided
Spanish	10703	73.47
ASL/Sign language	737	5.06
French	667	4.58
Arabic	543	3.73
Chinese	506	3.47
Swahili	419	2.88
Arabic	543	3.73
Bosnian	318	2.18
Vietnamese	311	2.13

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Robillard, 1994; Bauby, 1997). The inability to communicate effectively during a critical illness contributes to feelings of distress, frustration, anxiety, and agitation (Khalaila, Zbidat, Anwar, Bayya, & Linton, 2011; Nelson et al., 2004; Rotondi et al., 2002). A new body of research is documenting an increase in posttraumatic stress disorder (PTSD) in ICU survivors, such that some patients are reportedly unable to return to work even after achieving resolution of their medical problems (Girard et al., 2007; Griffiths, Fortune, Barber, & Young, 2007).

To address these concerns, some critical care departments (cognitive psychiatry, physical medicine, social work, pulmonology) are now offering multidisciplinary follow-up for ICU patients after discharge to detect, prevent, and treat post-ICU syndrome (Hernandez, Jenkinson, Vale, & Cuthbertson, 2014; Modrykamien, 2012). Patients and family caregivers are counseled about resources and the potential need for follow-up services. Reducing the communication barriers during the ICU stay may well prove to be a component of preventive action and thus lessen the risk of PTSD. A useful online resource is http://icusurvivors.com

Factors That Influence Effective Communication in Hospitals

Many factors can influence a patient's ability to communicate effectively while hospitalized. Communication difficulties may occur because of a patient's medical condition, disability, level of medication, and/or as a result of a medical procedure, as well as environmental and social factors. O'Halloran, Grohn, and Worrall, (2012) conducted a qualitative meta-synthesis review of health care workers and characteristics of a hospital care unit in an effort to identify environmental factors that either facilitated or created barriers to communication (Table 6–4). Although these researchers focused on acute hospital stroke units, their findings are relevant across all points of care because they specify consid-

Table 6–4. *Factors That Influence Effective Communication in Hospitals*

Social and environmental	Linguistic and cultural differences
	Health literacy
	Family caregivers and support persons
Medical conditions: preexisting, acute and temporary	Mechanical ventilation
	Sensory impairments
	Developmental and acquired chronic disabilities affecting speech and language
	Recent onset of neuromuscular paralysis and weakness resulting from injuries and illnesses
	Structural impairments (facial surgeries)
	Muscle weakness
	Significant cognitive disabilities
	Delirium

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eration of the following variables: provider's knowledge, communication skills, attitudes, experience, individual characteristics, as well as opportunities for communication, access to communication aids and equipment, hospital policies and procedures, staff training, and physical environment within each care unit.

Based on their review of multiple studies, O'Halloran and colleagues concluded that provider behaviors are central to the development of communicatively accessible care units and recommended focusing on recruitment, retention, and ongoing professional development of all health care providers in acute care as a means by which to improve patient-provider communication.

As discussed, hospitals are complex, dynamic, high-stakes institutions, and many factors influence the success of patient interactions with providers. Table 6–5 summarizes areas that influence effective communication in hospitals.

Environmental and Social Factors

Lighting, noise, who sits, who stands, attitudes, language barriers, family relationships, cultural and religious practices, beliefs about illness and doctors/healers—these and many other factors can influence the success (or failure) of communication exchanges between patients and providers. Environmental factors are often easy to modify or "fix," while social factors are not, but they must be managed. In any case, we can help avoid many communication problems by becoming more aware of the complexity of communication, beginning to understand the impact of the environment and provider's behaviors on the communication process, and learning to make good communication a priority for every health care team.

Cultural and Linguistic Differences

Communication can be particularly difficult when providers and patients have different backgrounds and views of the world, especially when they do not speak the same language. Differences in religious beliefs, culture, sexual orientation, gender identity, expectations about doctor/patient relationships, and family traditions can easily impact patient-provider interactions. Anne Fadiman's (1997) classic book, *The spirit catches you and*

Table 6–5. *Meta-Synthesis of Qualitative Research: Environmental Factors Influencing Communication Between Patients and Providers in Acute Hospital Stroke Units*

Characteristics of health care providers	Characteristics of stroke unit structure and processes
Provider's knowledge	Opportunities for communication between patient and provider
Provider's communication skills	Family
Provider's attitude	Communication aids and equipment
Provider's experience	Physical environment
Provider's individual characteristics	Opportunities for staff to learn communication skills
	Hospital systems, policies, and procedures

Note. Adapted from O'Halloran, Grohn, and Worrall (2012).

you fall down: A Hmong child, her American doctors, and the collision of two cultures, illustrates the disastrous consequences of culturally bound communication breakdowns between patients and health care providers. The book chronicles the miscommunications between health care providers and social services with the patient's family and community that led to the unfortunate removal of a child from the family and to a cascade of preventable medical errors. Although everyone had the child's best interests at heart, language and the prevailing cultural differences contributed to the child's ultimate death.

Medical sociologist Sharon Kaufman (2005) conducted an ethnographic study of dying in American hospitals. Her work details communication breakdowns and "incomprehensibilities" between the health care system, clinicians, and critically ill patients and their families/caregivers. Older adults are particularly vulnerable and often require family support and surrogates for medical treatment decisions during hospitalization.

Consideration of generational (age) differences, cultural differences, and health literacy is essential to the achievement of desired medical outcomes. Putting information in simpler language does not guarantee better understanding. Family members often help by relaying information about a patient's culture, sensitivities, and preferences. In some situations, family members are asked to speak on the patient's behalf. However, there are several reasons why family members should not be used as language interpreters during critical interactions involving patient care.

Professional interpreters not only support interactions with patients who are non-English speaking or deaf, they typically understand and reflect cultural sensitivities that can promote authentic exchanges between patients and providers and contribute to better patient outcomes. In a study comparing hospital length of stay and readmission rates between non-English speaking patients who received professional interpreter services and those who did not, Lindholm and colleagues (2012) found that patients who received professional language services had significantly shorter inpatient stays and fewer hospital readmissions.

Most hospitals do not have medical interpreters on site 24/7. When on-site interpreters are not available for critical interactions, hospitals can use telephonic, video, or Internet-based interpreter services. For routine interactions associated with standard bedside care, some hospitals now use unit-specific communication templates that have been vetted by professional interpreters and created for many different languages. Examples of bilingual pages (Hurtig, Czerniejewski, Bohnenkamp, & Na, 2013) designed for use on speech-generating devices are illustrated in Figure 6–1.

The example shown in Figure 6–1A is to help Korean patients express feelings. All buttons are labeled in both languages. In the low-tech version, patients can point to feelings they want to convey. In the high-tech version, patients select a message that is then spoken in English so caregivers understand.

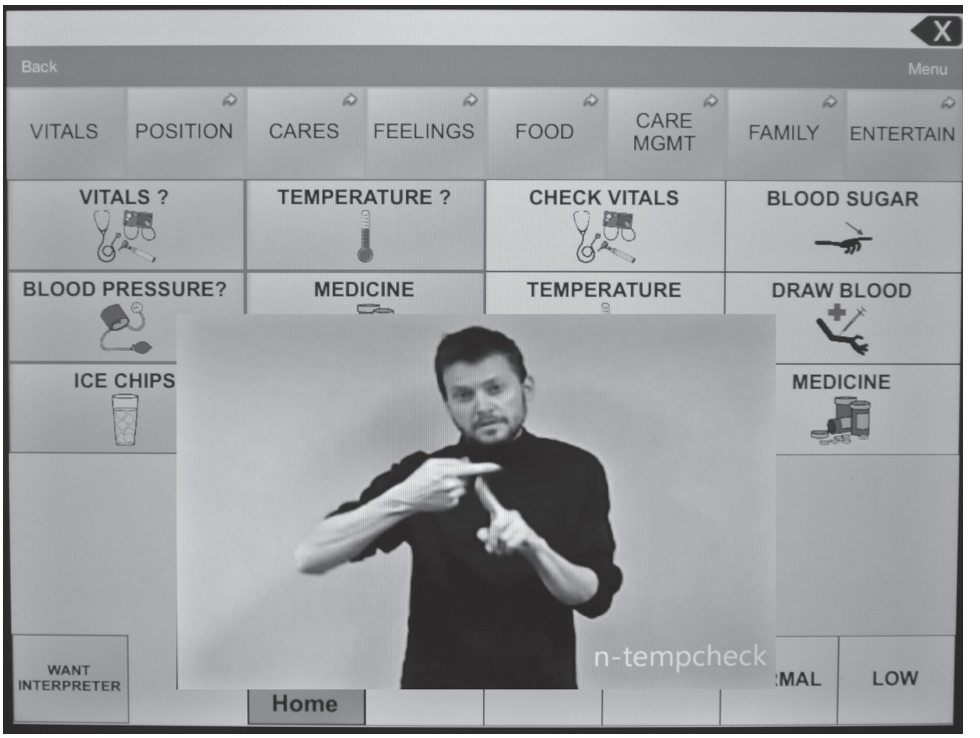
Figure 6–1B shows a bidirectional bilingual page set for Spanish-speaking patients so they can communicate with English-speaking caregivers. The screen is divided into two halves. On the left side, buttons are labeled in Spanish and when selected produce an officially translated version in English. On the right side, the buttons are labeled in English and when selected produce the message in Spanish.

For deaf patients who use American Sign Language (ASL) as their primary and preferred mode of communication, there is also an ASL version (Figure 6–1C). It has video clips of the signed messages along with the corresponding English message on the audio track.

A

B

Figure 6–1. A. *Korean-English conversation page.* ***B.*** *English-Spanish-bilingual board.*
continues



C

Figure 6–1. continued ***C.*** *American Sign Language display. Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.*

Health Literacy

Understanding and acting upon health information to make health care decisions is commonly referred to as health literacy. Poor health literacy is associated with many negative health outcomes (Hasselkus, 2011). Communicating in acute care hospital settings requires that providers use simple everyday conversational speech to describe medical conditions and procedures to patients. In addition, hospitals should provide all print forms and information sheets in "plain" language. As discussed in earlier chapters, many hospitals use teach-back as a required element of patient-provider interactions (Dantica, 2014; Dinh, Clark, & Bonner, 2013). "Ask Me 3" (three questions patients should ask) is another method promoted by the National Patient Safety Foundation and available on their website (~~http://www.npsf.org/for-healthcare-professionals/programs/ask-me-3/~~). However, utilizing these methods is far more difficult when patients have communication challenges, especially when patients are unable to talk or write. It is therefore important to provide alternative strategies that allow these patients who have difficulty expressing themselves ways to demonstrate understanding, so that they can take an active role in their own care.

Family Care Providers and Support Persons

Broyles, Tate, and Happ (2012) found that family members often initiate the use of assistive communication strategies with their loved ones by supplying paper and pen, whiteboards,

flash cards, or communication toys (e.g., Etch-a-Sketch, Magna Doodle, or Boogie Boards). Researchers have noted that some family members are eager to be involved in augmentative and alternative communication (AAC) solutions. In addition, how well patients use recommended communication strategies during a hospitalization often depends upon the degree to which providers encourage them to do so. In other words, family members are willing to help; however, they need to be instructed and coached on how to use specific AAC approaches (Broyles et al., 2012).

The Joint Commission has now mandated that patients in hospitals be allowed to designate a support person at admission, or later, if necessary. This person may participate in both care and care planning. One role of a support person is to provide emotional support, which may also require making sure the person has a way to communicate with hospital staff. Specifically, the Standard states the following:

> "The hospital allows a family member, friend, or other individual to be present with the patient for emotional support during the course of stay. Note 1: . . . *The individual may or may not be the patient's surrogate decision maker or legally authorized representative." (Element of Performance* RI.01.01.01**)** (The Joint Commission, 2010, p. 61)

Medical Conditions: Preexisting, Acute, and Temporary

In addition to environmental and social factors, a multitude of medical conditions influence the ability of patients to communicate with doctors, nurses, other providers, and hospital staff. This section summarizes these conditions and introduces some basic communication supports.

Patients on Mechanical Ventilation

During a critical illness, patients may require respiratory support through mechanical ventilation (aka, "artificial respiration"). Based on national estimates, over 790,000 hospitalizations require mechanical ventilation annually in the United States (Wunsch et al., 2010). Two common methods of connecting the patient's respiratory tract to mechanical ventilation are (a) endotracheal tube intubation and (b) a tracheostomy. An endotracheal tube is used when pulmonary support is needed urgently and temporarily. During intubation, the endotracheal tube is inserted into the trachea through the mouth where it then passes through the larynx and vocal cords. It is secured externally by tape or commercially available holders. A plastic balloon is inflated to help keep the tube in place and maintain a seal between the oral cavity and pulmonary tract. The placement of an endotracheal tube and devices used to secure the tube can hinder oral motor movement making speech impossible and lip reading very difficult.

After endotracheal tube removal, the patient's throat is often sore and the voice may be soft or hoarse. Although these symptoms usually resolve, some patients suffer permanent vocal cord damage as a result of endotracheal tube placement (Benjamin & Holinger, 2008; Mencke et al., 2003).

When respiratory support is needed for a prolonged period of time, surgeons often perform a tracheostomy (Esteban et al., 2000). Tracheostomy is a procedure completed under general anesthesia. During surgery, an opening in the neck, commonly referred to as a stoma, is created below the larynx and vocal cords. The surgeon then places a tracheostomy tube in the stoma so air passes through the tube instead of through the mouth and nose. Since no air passes through the vocal cords, patients no longer can produce audible speech.

Although patients on mechanical ventilation are unable to talk, some patients with

a tracheostomy may be able to mouth words after some training to enhance intelligibility (Tate, Seaman, & Happ, 2012). Most of these patients use gestures to indicate "yes" and "no" and can write using a pencil and paper, whiteboard, Boogie Board, or tablet to generate messages. Stovsky, Rudy, and Dragonette (1988) reported on a randomized controlled trial that examined the use of communication boards in 40 postoperative cardiac surgical patients. The patients who received communication boards reported significantly higher satisfaction during the early postoperative period than did those who received usual care (Stovsky et al., 1988). Similarly, critically ill, ventilated patients with chronic obstructive pulmonary disease (COPD) who had access to communication boards and paper reported higher levels of satisfaction compared to the control group who received routine nursing communication practices (El-Soussi, Elshafey, Othman, & Agd-Elkader, 2014). ~~However,~~ some patients may need to use eye gaze pointing or switches to control devices that enable them to select messages, as well as to activate the nurse call, use bed controls, turn on/off lights and the television. Speech-language pathologists work alongside nurses, pulmonologists, physicians, and family members to help patients on mechanical ventilation communicate effectively.

Patients With Sensory Impairments

Patients may be deaf and rely on sign language, or hearing impaired and rely on hearing aids. Patients may also be blind or visually impaired and use glasses, magnifiers, canes, and screen readers. Patients who are deaf and use sign language require certified sign language interpreters. Many older adult patients have sensory impairments because of physiological changes that affect their ability to hear and see. In addition, noisy environments, such as intensive care units, can make it more difficult for people with hearing difficulties to understand information (Pope, Gallun, & Kampel, 2013; Yorkston, Bourgeois, & Baylor, 2010).

All patients with sensory impairments need access to their assistive devices to minimize communication barriers. Unfortunately, these aids are often left at home for fear of loss, or in trauma cases, they may have been misplaced or destroyed prior to arrival in the emergency department. Sadly, some hospitals still instruct patients to leave their "valuables" at home and discourage patients from bringing sensory aids and other assistive technologies with them.

> "Helen" is an elderly woman admitted to the surgical intensive care unit subsequent to a fall at her skilled nursing facility. Her significant hearing loss was not disclosed at admission. She required ventilator support after surgery, and because she was not very responsive, the nurses caring for her felt she might be cognitively limited. However, when her family was consulted, staff realized that the patient's nonresponsiveness was more likely due to her hearing loss. Writing was not an option because she was weak and had IVs in both arms. Also, she could not hold pen or paper and had difficulty seeing.
>
> Nursing asked the family to retrieve her hearing aids from the skilled nursing facility. After the nurse put in her hearing aids, "Helen" still was not responsive and was referred to the hospital's speech and swallowing service for further assessment. A speech-language pathologist quickly determined that Helen's hearing aid batteries were dead and replaced them. However, within a few hours, the aids again malfunctioned. Helen was referred to an audiologist who concluded that "Helen's" aids did not function well and prescribed new hearing aids for her.

This case represents a "perfect storm" scenario. Helen's hearing loss was initially not disclosed. Staff at the skilled nursing center had not properly maintained her aids. Unit nurses were not adequately trained to change the batteries and did not know how to assess hearing aid function. Thus, solving this relatively simple problem took days, during which time Helen was unable to participate in her care in any meaningful way.

When patients arrive without their personal aids and devices, families should be asked to bring them to the hospital as soon as possible. It is also critical that nurses receive adequate orientation and in-service training on how to maintain personal devices, as well as learn about how to support communication technologies provided by hospital staff (e.g., assistive listening devices, magnifiers, electronic speech generating devices ~~[SGDs]~~). Family/patient information brochures can help family members remember to clearly label eyeglasses and hearing aids and to notify nurses that these devices are in the patient's room. Also, simple reference cards, resource guides, and bedside signage can help provide nurses with the information they need to care for devices (Hurtig, Stenger, & Wagner, 2014). Examples of bedside signage are shown in Figure 6–2.

Patients With Developmental Disabilities and Severe Speech and Language Impairments

Patients with developmental disabilities may have impaired speech secondary to cerebral palsy, autism, apraxia of speech, stuttering, or other conditions. When their speech impairment is severe, these individuals often rely on

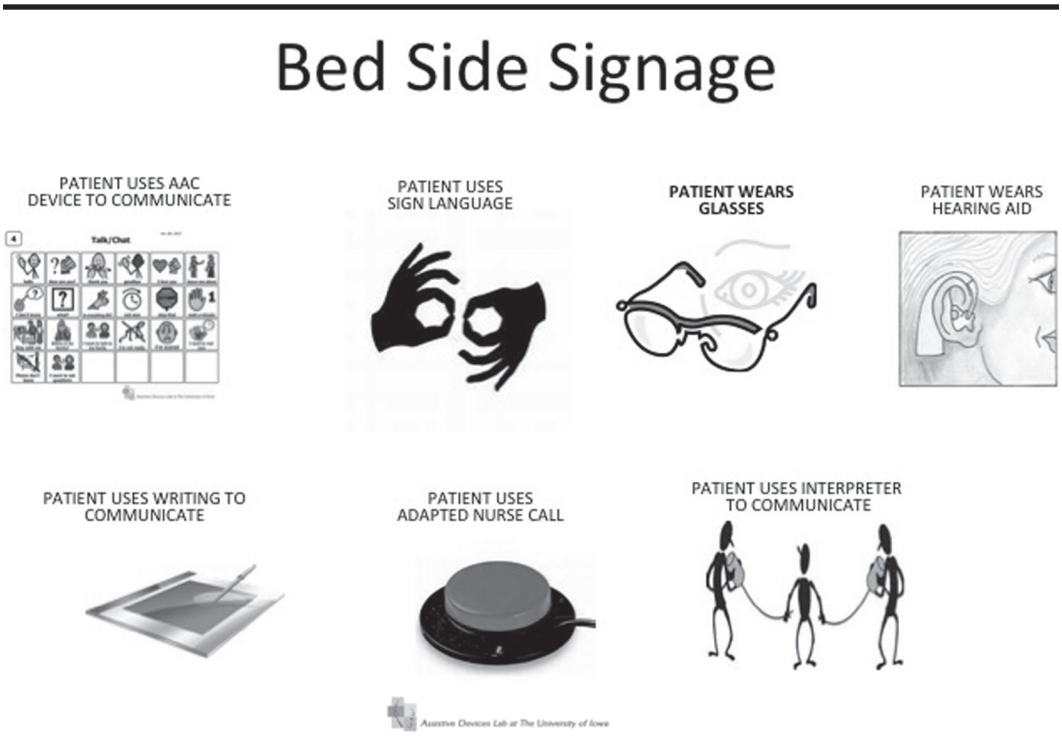


Figure 6–2. *Bedside signage. Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.*

communication boards/books or speech generating devices ~~(SGDs)~~ to "talk." A subset of patients with developmental disabilities also have impairments or conditions that make it difficult for them to understand spoken language, read, and/or write. Individuals with developmental disabilities learn to use a vast array of strategies, tools, and technologies over the years. When they are admitted to the hospital, some will prefer to bring their personal aids and devices with them so they can maintain their independence and participate actively in their care. Others may decide to leave their devices at home. Instead these individuals may bring hospital-specific tools with them and/or ask a familiar communication partner who understands their impaired speech to accompany them. In any case, patients with developmental disabilities need to be able to communicate with nurses, doctors, other providers, and family members throughout the hospitalization.

According to researchers in Australia, hospitalized patients with developmental disabilities and complex communication needs face challenges expressing their needs, participating in their care, and remaining socially connected (Balandin, Hemsley, Sigafoos, & Green, 2007; Hemsley & Balandin, 2004). Communicating with these patients may be a challenge for nurses and other caregivers unless they know what to do (Hemsley et al., 2001). There is strong evidence, for example, that when these patients have effective communication strategies, both patients and nurses benefit (Hemsley, Balandin, & Worrall, 2011; Hemsley & Balandin, 2014).

Doctors can refer patients who are prescheduled for surgery or a medical procedure to speech-language pathology, audiology, and/or interpreter outpatient service departments. The goals would be to develop strategies and materials that patients can use to ask and answer questions about their conditions, express their needs and feelings, make comments, and convey their personalities during the hospitalization.

Patients With Acquired Disabilities That Result in Neuromuscular Paralysis and Weakness Affecting Speech

Patients admitted to the hospital with severe head trauma, cervical spinal trauma, cerebral vascular accident, or Guillain Barré syndrome may be unable to communicate for hours, days, months, or even years without human and/or technological supports. Depending upon where in the central nervous system the damage occurs, patients may present with paralysis of muscles that interferes with speech production, as well as gesturing, facial expressions, pointing, and mobility. Patients with brain-stem strokes and spinal cord injuries, as well as those with amyotrophic lateral sclerosis (ALS), may be "locked-in" (i.e., unable to move, but with cognitive and language abilities that are intact).

Some neuromuscular conditions are progressive (ALS, multiple sclerosis), while other are chronic (stroke/aphasia, brain injury, spinal cord injury). Examples of communication tools that support these patients include low-tech paper and pencil strategies, communication boards and books, and high-tech speech-generating devices with eye tracking capabilities. Downey and Hurtig (2006) surveyed 133 experienced nurses working in ICUs and on a neurosciences inpatient unit. Table 6–6 shows that most nurses reported they had used a variety of communication techniques with their patients. Specifically, they reported using adapted nurse call systems (98%), paper and pencil (96%), picture or symbol boards (80%), alphabet boards (65%), and lip reading (70%). Some nurses also reported using sign language (35%) and electronic speech generating devices (46%).

Patients with acquired disabilities often face psychological as well as physical hurdles

Table 6–6. *Communication Strategies Used by Nurses in ICUs and on the Neuroscience Unit at UIHC*

Communication Strategy	Percentage (%) of Nurses Indicating Use of Strategy
Paper and pencil	96
Picture or symbol board	80
Lip reading	70
Alphabet boards	65
Electronic voice output device	46
Sign language	35
Other	18

Note. Reprinted with permission from Richard Hurtig.

and may have difficulty adjusting to their disabilities (Hurtig, Downey, & Zubow, 2014). They are often seen by rehabilitation services (e.g., speech pathology, occupational therapy, and physical therapy) during the admission. Many continue to need therapy to help with communication access, positioning, determining vocabulary needs, representational systems, and other needs as they arise (Beukelman, Garrett, & Yorkston, 2007). They can benefit from outpatient communication services, monitoring, and team support throughout their lifetime (Beukelman & Mirenda, 2013; Beukelman et al., 2007; Hurtig & Downey, 2009). Chapters 8 and 9 address health care services available to these patients.

Patients With Significant Cognitive Disabilities

Patients with cognitive disabilities secondary to developmental, acquired, or degenerative conditions will usually have difficulty understanding what is happening to them during a hospitalization. A referral to speech-language services to provide communication supports can sometimes help these patients achieve a higher level of meaningful participation. Meltzer, Gallagher, Suppes, and Fins (2012) described a clinical ethics case of a 75-year-old homeless man with burns over 50% of his body. He had no family or health care surrogate. He was awake, alert, ventilator-dependent via a tracheostomy, and able to mouth words, but had a history of mental incapacity. After undergoing multiple operations, failed skin grafts, and repeated infections over a 1-year period, he required more surgery that he adamantly refused. The burn unit staff requested help from lip-reading interpreters so they could better understand what he was trying to say, which greatly increased the speed and fluency of critical discussions. With the help of lip-reading interpreters, psychiatry determined he lacked the capacity to make informed decisions about eating, had poor insight into his medical situation, and could not articulate the negative consequences of his desire to eat donuts and drink coffee, namely, aspiration and risk of death. Even so,

the patient was able to provide valuable input about his preferences and share in decision-making processes.

In commentary on the Metzler article, Happ points out that although lip reading worked for the patient, it is not always successful or feasible. Despite his severe contractures, staff could have used communication boards with partner-assisted pointing ~~technique~~ as a viable option that would require little training. Alternatively, electronic speech-generating devices equipped with switch activation by a usable muscle group (face, lips, finger, or toe) might have worked (Happ, 2012).

Patients With Structural Impairments

Multiple structures are involved in producing intelligible speech. Trauma, congenital anomalies, and head and neck cancer surgery can interfere with a patient's ability to speak, temporarily or permanently. For example, mandibular fractures may require that the jaw be wired to aid in recovery. Extensive head and neck cancer surgery or radiotherapy can cause temporary swelling that impairs speech and impacts the patient's ability to communicate. Surgery sometimes results in permanent structural changes that also may limit oral speech. Patients who undergo a total laryngectomy will need alternative methods of communicating until they can use a speech aid (e.g., electrolarynx) or tracheoesophageal voice prosthesis.

Happ, Roesch, and Kagan (2005) conducted a pilot study testing the feasibility of electronic speech generating devices with 10 adult patients after head and neck cancer surgery during the postoperative in-hospital period. During communication observations, ~~most commonly,~~ patients relied on nonverbal communication (46%) and writing (31%). Only a small number (17%) used the customized speech generating devices (SGDs). However, those who did were more likely to initiate communication and generate messages. Results from ~~their~~ study also suggested several barriers to effective device use: poor device positioning, a lack of staff familiarity with SGDs, and patient preferences for other methods. Patients with limited literacy skills can use SGDs when provided with pictures or symbols to create messages.

More recently, Rodriguez and Bilschak (2010) reported results from a study that surveyed patients with head and neck cancer, their family caregivers, and nurses. Their goal was to determine whether patients had difficulty communicating, what topics they found most difficult to communicate about, and with whom they experienced the most difficulty. All groups agreed that effective communication was essential during the acute postoperative period. Patients reported having more difficulty communicating with registered nurses than other groups.

Whether a patient's structural communication impairment is short term or permanent, providing communication options immediately is critical. Writing tools (e.g., paper and pencil, whiteboards, and Boogie boards) may work well for communicating face to face at bedside. However, these methods do not allow patients to communicate with family members over the phone, by e-mail, or by text. Patients often want to use familiar electronic devices, such as a smartphone, tablet, or touch pad to communicate with family and friends. They may also benefit from using text-to-speech communication devices for environmental control as well as communication.

Patients With Delirium

Delirium is a syndrome that commonly occurs in acute and critically ill patients (Van Rompaey, Schuurmans, Shortridge-Baggett, Truijen, & Bossaert, 2008). Delirium is defined as a disturbance in attention and awareness occurring over a short period of time.

Symptoms include cognitive problems, such as memory loss, disorientation, and psychomotor agitation (American Psychiatric Association, 2013). In addition, respiratory disease, older age, alcohol abuse, dementia, electrolyte imbalances, severe illness, hypertension, fever, opiate use (e.g., morphine), and metabolic acidosis are predisposing or precipitating risk factors for delirium (Van Rompaey et al., 2008).

Delirium is distinguished from dementia by a sudden onset, fluctuating course and reversibility. It is a serious complication of acute and critical illness, considered "brain failure." Delirium is directly associated with poor short- and long-term outcomes among critically ill adults, including prolonged mechanical ventilation, longer lengths of hospital stay, in-hospital mortality, depression, anxiety, and cognitive impairment after discharge (Brummel et al., 2014; Pandharipande et al., 2013; Wolters et al., 2014; Zhang, Pan, & Ni, 2013).

The patient with delirium is unable to focus or sustain attention or wakefulness so communication is impeded. Patients who are delirious may have unintelligible speech, as well as difficulty understanding and remembering. Nurses often recognize delirium and report their findings to the patient's physician and other providers so steps can be taken to ameliorate and remove causative factors. Current practices to address delirium include getting the patient off sedation, weaning the patient from the ventilator, and working to engage the patient in communication (Balas et al., 2014).

Patients With Muscle Weakness

Inactivity during an acute illness can contribute to muscle breakdown and a decrease in muscle mass and muscle atrophy (Casey, 2013) causing upper extremity and oral motor weakness and poor coordination. Patients with heart disease and kidney failure are particularly susceptible, as are trauma patients who sustain burns and/or limb fractures. The use of sedation for ICU patients on mechanical ventilation, which exacerbates delirium, can also quickly lead to a loss of muscle mass (Banerjee, Girard, & Pandharipande, 2011; Morandi, Brummel, & Ely, 2011).

Poor fine motor coordination and swelling of hands and fingers can impair writing, reliable pointing to a communication board, and touch screen activation. Patients with muscular weakness secondary to muscle atrophy may need assistance from communication partners to spell, point, and use a communication device. A helpful online resource dealing with these approaches can be found at https://www.youtube.com/watch?v=D53gygWRhLM

Communication Supports

As noted in the previous section, there are many reasons why patients in hospitals have difficulty communicating. While most hospital systems make every effort to address the communication needs of people with limited English proficiency and people who are deaf and require sign language interpreters, the needs of other groups continue to be overlooked.

Often, communication accommodations are quite simple, requiring only a slight modification to (a) the environment (turning on the light, closing a door to limit noise, providing comfortable chairs) and/or (b) provider behaviors (using "plain" language, establishing eye-to-eye contact, acknowledging there is a problem, modifying one's positioning by sitting rather than standing, giving written materials in large text, and so on). Sometimes, however, communication solutions require special expertise and necessitate the use of interpreter services and/or collaborative teams of specialists who can

provide communication enhancement strategies, tools, and technologies.

Communication specialists typically include speech-language pathologists, audiologists, and medical interpreters who have the unique knowledge and skills required to assess and treat the unique communication problems that arise in hospitals (Blackstone, Ruschke, Wilson-Stronks, & Lee, 2011; Rao, 2011). Communication breakdowns can occur at any point of care. Ultimately, however, hospital staff needs to know how to cope with communication breakdowns and how to generate referrals to appropriate services. The following story illustrates one patient's journey from admission through discharge, highlighting the communication supports he required along the way.

Frank, age 26, was flown by air ambulance to the emergency room after sustaining a severe spinal trauma due to a motor vehicle accident. A C3-C4 cervical spine injury left him unable to move his limbs. At admission, he was ventilator dependent, placed in halo traction, and taken to the operating room to have a spinal fusion and further stabilize his cervical spine.

When medically stabilized, Frank was transferred to the surgical intensive care unit. He appeared alert and aware of his surroundings. However, he was passive during interactions with his care team, showing no interest in engaging with family and friends, exhibiting signs of depression.

Prior to his accident, Frank was an energetic, physically active young adult with a wide range of interests and a full social life. He was characterized as a risk taker and someone who was not afraid to try new things.

Because he was orally intubated, staff generated a referral to establish communication supports. The communication team found that Frank's only intentional gesture was a gaze shift. He was able to establish a reliable yes/no response, looking up to indicate "yes" and down for "no." The team asked his bedside care staff to offer him additional choices ("maybe" and "later").

As part of the initial visit, the speech-language pathologist demonstrated a speech generating device (SGD) and explained how Frank could use it to communicate. He looked down to indicate "no," signaling that he was not interested. Later in the day, however, when the team asked if Frank wanted to control his TV and bedside fan using the SGD, he indicated "maybe." By the end of the session, he agreed to "give it a try."

Because Frank was able to move his tongue into his check, he could activate a proximity sensor switch mounted on the halo and positioned by the side of his cheek. The teams created a template so he could call the nurse, ask for medication, control a fan, and turn the TV off/on, using a simple serial scan method. He demonstrated good control of the device. During morning rounds, nursing staff reported that he was practicing using the switch and device even when alone.

Gradually, Frank became more engaged with staff, family, and friends. His parents noted he had gone from a state of hopelessness to an understanding that he had some control and power over his care. After a few days, Frank was adept at navigating through a full set of communication pages on the SGD. He used the device to regulate his care and express his feelings, turn the TV "on and off," and select

favorite channels. He also was working with his speech-language pathologist to personalize some messages. He told her that he had a "proposal to make" to his girlfriend.

Gradually Frank transitioned from the halo to a Miami-j collar, so positioning of the proximity switch became another problem to solve. He liked wearing baseball caps so the occupational therapist decided to mount the proximity switch on his cap. This allowed him to maintain meaningful interactions with his family, girlfriend, and staff. In fact, he proposed to his girlfriend while still in the ICU, and they were later married.

When Frank was discharged to a rehabilitation facility, his greatest concern was being able to continue to use switches to control his environment. Arrangements were made to purchase this equipment. The hospital team communicated with the rehabilitation team to ensure that Frank's communication needs were understood and could be met. Because of his ongoing needs, he was eventually transferred to a long-term care facility.

Admission and Preadmission

Nonelective/unscheduled admissions like Frank's are known as urgent/emergent hospitalizations. They are dictated by a patient's medical condition and a treating physician's determination that a hospitalization is required to address the problem. Generally, urgent admissions cannot be postponed. More than three-quarters (81.8%) of unscheduled admissions to hospitals now come through emergency departments (American College of Emergency Physicians, 2013). Elective (or nonemergent) admissions are "chosen by patients or their physician for a multitude of reasons that are perceived to be beneficial to the patient, but are not urgent" (Rand Corporation, 2013, p. 5).

During the admission process, the communication exchanges that take place are, for the most part, fairly predictable. Patients need to be able to provide information about their symptoms, insurance matters, personal data, medical history (e.g., allergies, complaints, current list of medications, etc.), advance directives, and so on. They also need to understand and respond to questions and read and complete required forms.

Admission staff or the admitting nurse can deal with many common communication problems. These professionals show respect and sensitivity to patients from very different backgrounds and know how to determine a patient's preferred language and modality of communication. They can identify any sensory or motor deficits that may impact the patient's ability to understand and be understood by hospital staff. However, they are not qualified to determine a patient's cognitive status or decisional capacity, or to understand the complexity of communication disabilities and conditions that can interfere with a patient's ability to talk, write, read, understand, and remember during a hospitalization. Ideally, admissions staff should "tag" communication vulnerable patients immediately, so that care staff are alerted and can generate an appropriate referral.

For elective admissions, the procedures often begin in a doctor's office. The patient may subsequently receive general instructions about the hospital, what to expect while at the hospital, and what to bring to the hospital. Written documentation is supposed to be provided in "plain language," translated into languages of the local community, and made

available in accessible formats (Braille, auditory, electronic) (The Joint Commission, 2010).

In emergent/urgent admissions, patients may be unable to participate in the admission process due to their medical condition. Family members or medical surrogates may (or may not) be available to help. Regardless of entry route, the information that needs to be collected is essentially the same.

Prior to a prescheduled admission, doctors can refer patients who have preexisting communication challenges and patients who may have difficulty communicating after a scheduled procedure or surgery to speech-language pathology, nursing, and/or interpreter services for an outpatient visit. Goals of the outpatient visit are to (a) prepare the patient, (b) develop communication tools, and (c) teach the patient (and family) how to use the recommended tools and strategies.

Community professionals (e.g., speech-language pathologists in private practice, rehabilitation professionals) can (and should) help their clients prepare for scheduled and emergency-related hospitalizations in advance.

Individuals with preexisting communication challenges should have the following information ready to bring to the hospital: (a) personal and medical information; (b) personal assistive technologies (e.g., hearing aids, glasses, communication display, speech-generating device); and (c) written instructions to help nurses and other care providers communicate with them (e.g., This is how I communicate; These are my assistive devices; These are the people who can help me communicate with you).

Care Units: ICUs and Generalized/Specialized Care Units

After being admitted to a hospital, patients are "triaged." Elective and nonurgent patients are escorted directly to an appropriate general care

At age 35, John was diagnosed with a laryngeal mass (head and neck cancer) and scheduled for a laryngectomy. Prior to the surgery, he met with an admissions nurse and a speech-language pathologist. During the outpatient visit, the nurse reviewed his history, discussed his upcoming surgery, and told him what to expect after surgery. The speech-language pathologist explained that he would awaken with a tracheostomy and not be able to speak. John indicated he would prefer to rely on writing (e.g., paper and pencil, magic slate, word processing), at least initially, because it would require little or no instruction.

The speech-language pathologist also showed John an electro-larynx but reminded him that he probably would not be able to use it immediately because edema and bandaging would interfere. John said his immediate concern was to communicate face to face with care providers and family at bedside, but he also expressed an interest in communicating with people at a distance. For example, he wanted to be able to "talk" to the unit clerk over the intercom when he pushed the nurse call button. The speech-language pathologist then showed him a simple SGD that would enable him to create messages and record his own voice before the surgery. This is known as message banking (Costello, 2000; Costello, Patak, & Pritchard, 2010).

The preadmission team also discussed the possibility that John might emerge from surgery with a partial or full glossectomy. They assured him that if that were to happen, he would still be able to communicate. He said, "Okay, but let's cross that bridge if we need to."

unit. Emergent patients are typically taken from the emergency department to another department in the hospital (e.g., radiology for further tests, surgery to undergo an urgent procedure) or to a care unit (e.g., medical, intensive care, cardiac, neurology, behavioral) for further diagnosis and/or to treat their condition or illness.

It is critical that unit staff quickly assess each patient's ability to summon help and communicate with caregivers. The Communication Access Decision Trees, pictured in Figure 6–3, illustrate the dynamic nature of communication challenges on care units. Communication needs can change quickly, so anyone who is communication vulnerable will require ongoing assessment, monitoring, documentation, and timely referrals. Figure 6–3A focuses on accessing the nurse call button; Figure 6–3B addresses all other communication needs.

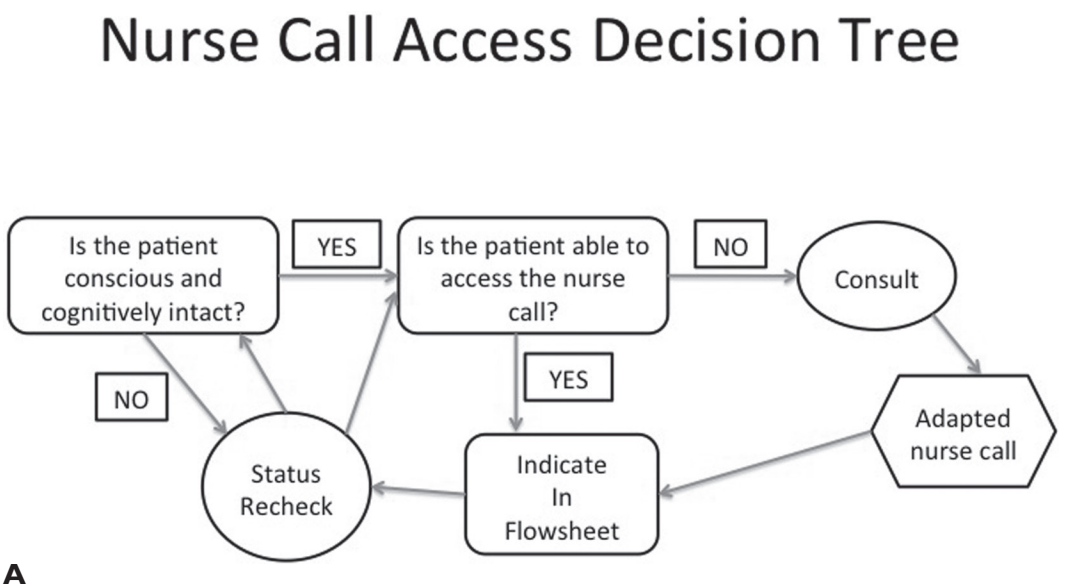
Accessing the Nurse Call System

When patients are unable to call for help, there is a notable increase in falls, injuries, and other adverse events (Tzeng, 2011). As discussed earlier, on any given day, many patients are unable to use a standard nurse call button (Zubow & Hurtig, 2013). Reasons why patients may have difficulty accessing the standard call button include the following:

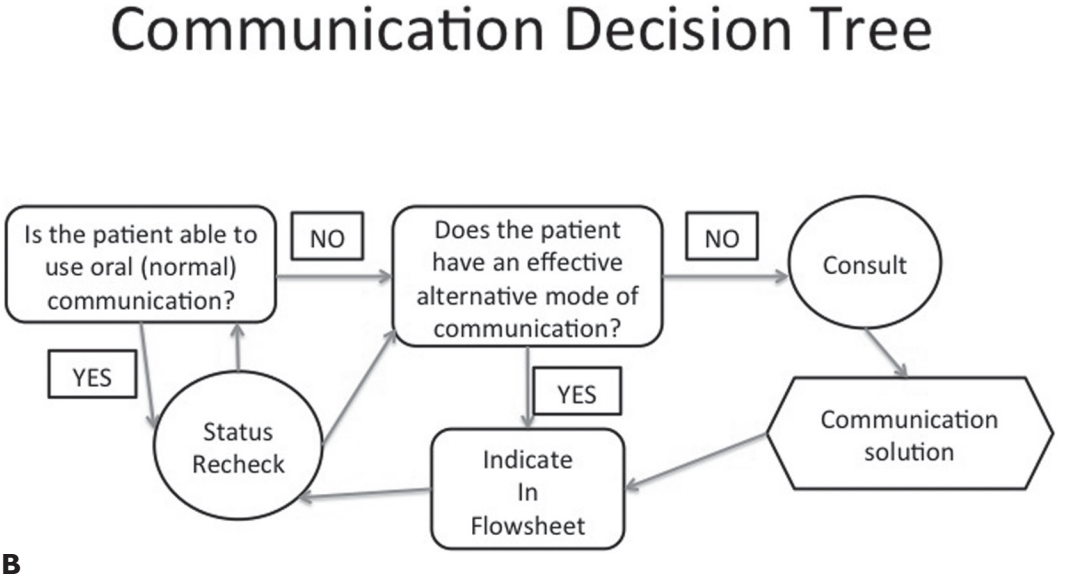
- *Problems with positioning, restraints, or an inability to see the button.* Some patients cannot independently position themselves in bed, so access may simply require proper placement of the button. When repositioning a patient, nurses and aides need to make sure patients can continue to use the call button reliably. Family and visitors also need to remember to keep the call button within the patient's reach.
- *Problems caused by limited strength and/or motor control.* Patients who are weak or unable to use their hands may need a special switch so they can use an elbow, finger, toe, or even eye blinks to activate the call system. Multiple switch options are available. Nurses may try a few switches and select and position one that works, or they may request a consult from the hospital's designated service, often speech-language pathology or occupational therapy. Once a reliable access method is identified, providers need to monitor the patient's use of the alternative call button to evaluate whether the system is adequate or needs adjustment.

Figure 6–4 illustrates the crowded and complex environment of an ICU. It shows a simulated patient who is intubated and on mechanical ventilation, receiving nutrition through a nasogastric tube, receiving fluids and medication intravenously. He has an indwelling urinary catheter and is connected to multiple monitors for vital sign functions. It should be clear that accessing the traditional call system is a challenge for any patient in this situation.

Hospital safety protocols specify that all conscious patients be able to access a nurse call system so they can effectively summon a nurse. The standards for placement of nurse call buttons/cords are found in the AIA "Guidelines for Design & Construction of Hospital and Health Care Facilities," 2001 edition (The American Institute of Architects Academy of Architecture for Health, 2001). Hospitals need a system-wide protocol to identify, solve, and monitor problems when patients are unable to access the standard nurse call system. This is initially the responsibility of nursing staff, but when solutions are not obvious, nursing



A



B

Figure 6–3. A. *Nurse Call Decision Tree* ***B.*** *Communication Decision Tree. Reprinted with permission from Richard Hurtig.*

can generate a referral to the hospital's designated service.

Until patients can reliably call a nurse, staff must monitor the patient very closely. Some hospitals post monitoring reminders outside a patient's room and expect staff to look in on the patient. One example is the "no pass zone" policy, which requires staff to enter

Figure 6–4. *Intensive care unit setup: simulated patient. Reprinted with permission from Richard Hurtig.*

any room when a call light indicator is illuminated (indicating that the patient triggered the call system). Signage can also be posted at the nurse call station so receptionists know which patients have difficulty using a nurse call system, and which patients have difficulty hearing, seeing, speaking, understanding, or remembering.

At Bedside

Providers, hospital staff, patients, and family members need to be able to communicate successfully with one another at bedside. Some patients require communication supports (i.e., interpreters, designated support persons, materials, and equipment) (Patak et al., 2009). While mouthing words and relying on gestures and head nods can be helpful, these methods are never sufficient for hospitalized patients. Likewise, patient responses to "yes/no" questions (even when other options such as "I don't know" or "something else" are offered) are also not sufficient. They restrict communication exchanges to predictable messages or messages that "meet a clinician's *a priori* expectations of a patient's need," but do not necessarily meet the needs of the patient (Patak et al., 2009, p. 373).

Effective communication in hospitals requires that a range of options be made available to patients with hearing, vision, and speech impairments, as well as other patient groups. For example, patients need to let nurses know when they are in pain, where the pain is, and ~~what the pain's intensity is rated~~. Furthermore, they need to be able to quickly report symptoms that might indicate an adverse reaction to a transfusion of blood products or intravenous antibiotics, respiratory distress, or a need for suctioning. Figure 6–5 provides an example of a communication board that enables a patient to indicate pain or a need for suctioning.

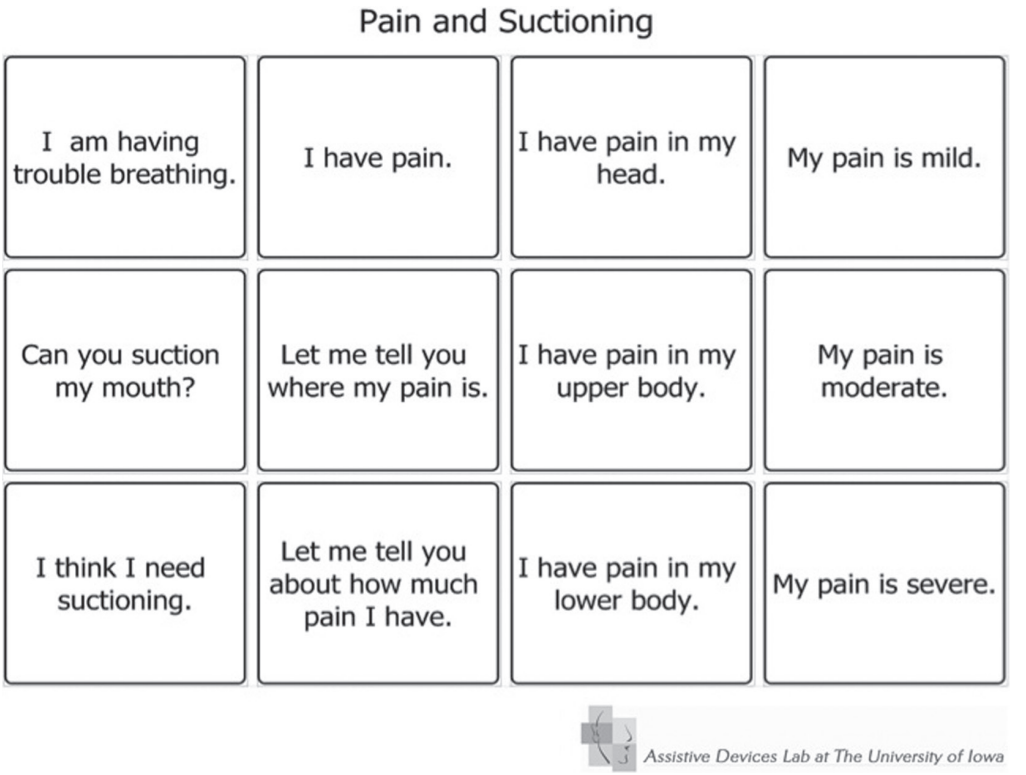


Figure 6–5. *Pain and suctioning. Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.*

> Patients with preexisting hearing, visual, or speech impairments may arrive at the hospital with their own communication aids or devices. For patients who experience sensory or communication impairment due to their current medical condition, it may be necessary for the hospital to provide auxiliary aids and services or augmentative and alternative communication (AAC) resources to facilitate communication. (The Joint Commission, 2010, p. 41)

Communication in ICUs. ICUs are high-stakes, time-compressed environments (St. Pierre, Hofinger, Buerschaper, & Simon, 2011). Researchers describe ICU communication exchanges as limited, consisting primarily of procedural-oriented information, commands, and reassuring statements (Ashworth, 1980). Reportedly, ICU nurses typically initiate communication interactions with patients and direct the topic of communication exchanges (Ashworth, 1980; Happ et al., 2011, 2014). Actual "conversations" tend to be a brief part of care interactions in ICUs (Ashworth, 1980; Nilsen, Sereika, & Happ, 2013).

Despite years of experience, even highly skilled, critical care nurses in ICUs cannot always know what their patients are thinking, feeling, or wanting to communicate about. While it is easy to assume that patients are thinking about their pain or anxious about a diagnosis and prognosis, that is not always the case, as illustrated by Susan's story.

Susan was recently diagnosed with cancer, and subsequently admitted for exploratory surgery. Following the surgery, she was transferred to the surgical intensive care unit (SICU) because she continued to require ventilator support. A nurse noted that Susan seemed to be trying to communicate with her daughter by mouthing words, but it was not working. Susan was becoming increasingly agitated, so the nurse decided to ask her to write down her message. However, Susan's writing was not legible at the time, as shown in Figure 6–6.

The nurse then began to ask Susan a series of "yes/no" questions in an effort to narrow down what she was trying to talk about. "Are you having any pain?" Susan responded, "No." Do you want to know something about your condition?" Susan answered, "No." Do you want to know about the tube you have? The ventilator? Your medications?" Susan continued to respond, "No, No, No." Finally, the nurse asked, "Do you want to talk about something at home?" Susan nodded, "Yes." Her daughter took over and eventually learned that her mother was concerned about the meat she had left in her refrigerator. She did not want it to spoil.

After that exchange the nurse went back to her office. She recalled thinking, "I am emotionally exhausted, but have learned something very, very important. I had assumed I knew what my patients want to talk about. I assumed Susan was agonizing over her cancer diagnosis. Instead she was worrying about something entirely different."

During rounds, the nurse later told her colleagues, "I will never again assume that I know what my patients want to talk about."

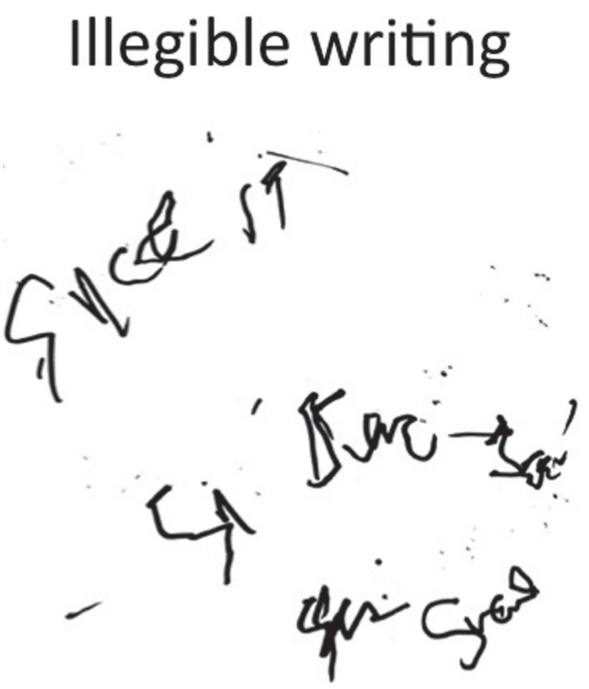


Figure 6–6. *Unintelligible writing sample. Reprinted with permission from Richard Hurtig.*

Mechanically ventilated patients in ICUs who do not have access to communication options cannot report their symptoms (Puntillo et al., 2010). When they are provided with communication supports, however, interactions with nurses about symptoms increase (Happ et al., 2015), and they are more likely to become involved in decisions about treatment options and discussions about end-of-life issues (Ankrom et al., 2001; Hurtig, 2012; Meltzer et al., 2012). Providing immediate communication supports to conscious, alert patients in ICUs is not only mandated by standards and best practice, but the right thing to do. However, having access to communication does not necessarily solve all decision-making dilemmas. Patients who use communication supports may express ambiguity or change their minds about life-sustaining treatment decisions.

Communication on Step-Down Care/General Units. While some interactions in step-down/general care units are critical, others are more routine and more varied. They include bedside assessments (e.g., neurological exam, explaining procedures), bedside procedures (drawing blood, changing an IV line, administering medication), routine care (checking wound sites, feeding, toileting, ordering food), social interactions (talking with family and hospital staff), asking and responding to questions, and engaging with people in departments away from the care unit (e.g., radiology for tests).

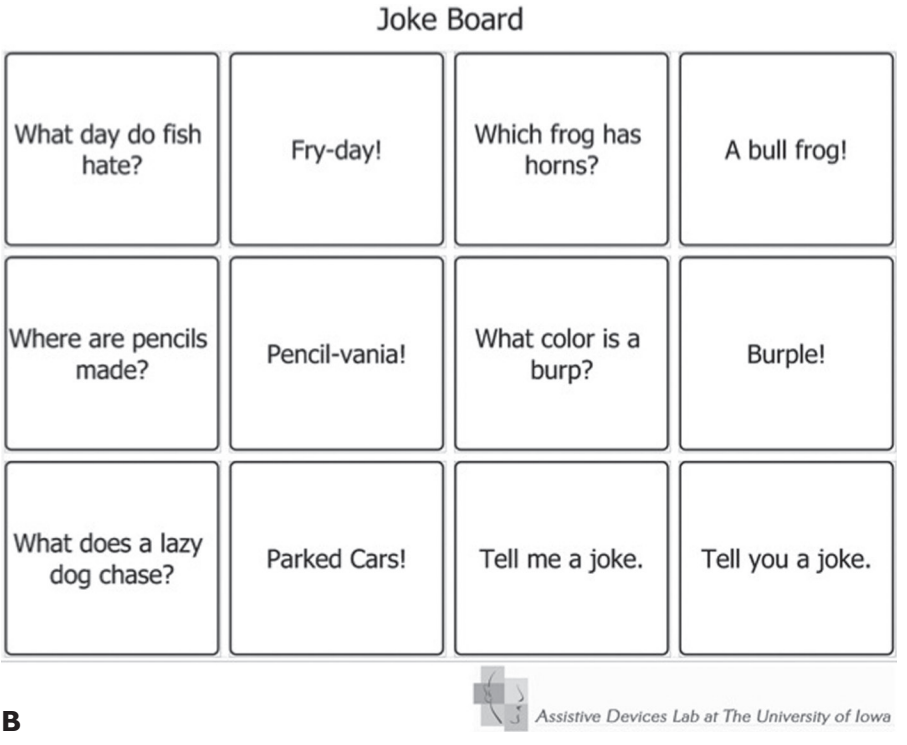
Like patients in ICUs, these patients need a way to participate. They need to be able to take an active role in decisions about their condition/illness, report symptoms and pain levels, express their unique personalities, ask questions, and connect in other ways with staff, friends, and family. They also need to be able to understand what providers are saying. Because these patients are not as sick or as heavily medicated, they are often more interested in social interaction. Most want to be seen as a "person" not just a "patient." Thus, social exchanges with providers, however brief, become a valued component of medical encounters in step-down units.

Some patients want to tell jokes and discuss current events. Others want to catch up on their family's activities, ask about pets, or engage in neighborhood gossip. These patients are more likely to need ways to discuss a range of topics that have nothing to do with their illness or condition. Figure 6–7 provides an example of a "joke page" requested by a patient who wanted a way to "break the ice" when interacting with nurses and family members. "I don't want them to see me as just a sick body in the bed," he said.

Access to Equipment on Care Units. Hospitals should have, or have access to, a stock of (a) alternative switches, (b) signage to place at bedside, (c) communication cards, (d) writing implements, and (e) electronic devices. Some hospitals have speech generating devices or tablet-based devices to help patients operate environmental controls, access the Internet, and "talk" with family and friends. Tablet-based communication tools are ubiquitous and thus often appeal to patients and staff. Devices that enable patients to access the Internet and communicate with friends and family from afar can make a difference in the quality of a patient's hospital experience. Regardless of the technology, someone in the hospital's organizational structure needs to be responsible for the acquisition, deployment, and maintenance of these communication tools. Table 6–7 provides a general overview.

It is essential that nurses in care units know how to access and use equipment as well as know when and where to refer patients if needed. An example of a Referral Information Chart is shown in Figure 6–8. Most referrals are to speech-language pathologists, interpreters, audiologists, and occupational therapists.

A



B

Figure 6–7. A. *Example of humor page: Knock-knock jokes.* ***B.*** *Example of humor page. Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.*

Table 6–7. *Example of Equipment to Support Communication Access in Hospitals*

Type of Equipment	*Purpose*	*Considerations*	*Example*
Switches Hospital provides	• Provide access to nurse call • Provide access to communication tools	• Reliability • Mounting • Dependability	Light touch, proximity, pressure or infrared Blink switches
Signage Hospital provides	• Alert providers about communication issues. • Provide general information to bedside staff and visitors about communication needs and preferences	• Readability • Language access • Understandability • Placement at bedside	See Figure 6–2
Writing tools Hospital provides	• Enable patients who are literate to write	• Legibility • Accessibility to tools • Ability to read	Whiteboard with Sharpie, Boogie Board, or text-to-speech keyboard; notebooks, clipboards, felt-tip pens, and orthotic aids
Nonelectronic communication tools (templates/displays, magnifiers Hospital provides	• Provide quick way for patients to communicate a broad range of messages in one or more languages	• Access: visual, motor • Training • Storage • Infection control	See Figures 6–1, 6–5, 6–7, 6–9, and 6–10
Electronic devices (SGDs, assistive listening devices, tablets with communication apps, etc.) Hospital provides	• Support communication by providing options for expressive communication • Enhance patient's ability to hear/see/understand	• Storage • Maintenance • Tracking • Infection control • Privacy • Access	See Figure 6–4
Patient's personal devices	• Allow patients to use preferred communication tools	• Storage • Safety • Access • Mounting	Hearing aids, glasses, low-tech communication cards, SGD device, personal computer, smartphone, tablet/iPad

Note. Reprinted with permission from Richard Hurtig.

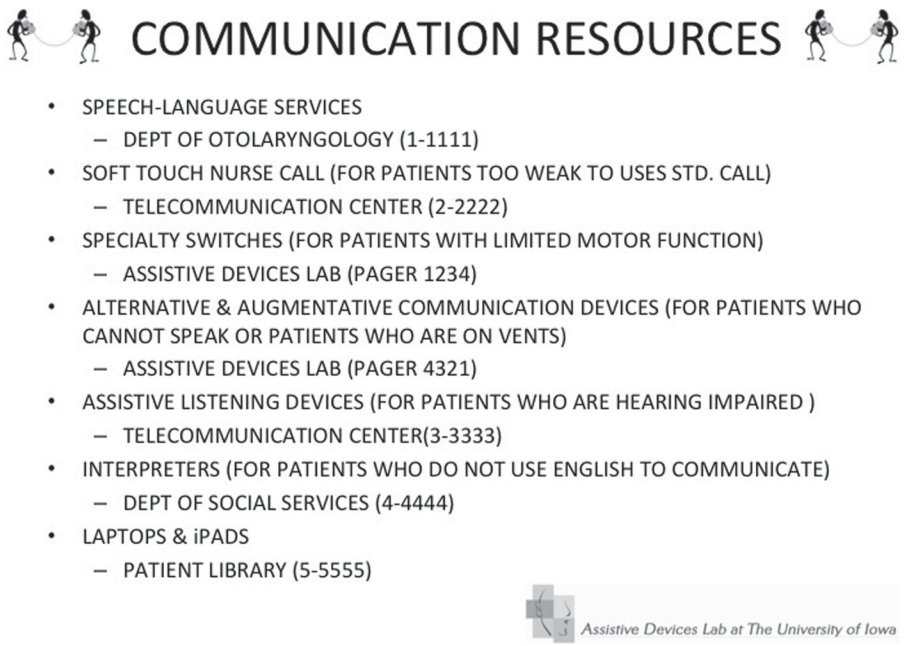


Figure 6–8. *Referral information chart. Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.*

These departments need to respond quickly, access appropriate equipment, and solve the problem.

Discharge and Beyond

Thousands of people are discharged from hospitals every day. In 2006, for example, there were over 39 million hospital discharges in the United States. Discharge planners work with patients, family members, health care providers, and medical staff, as well as outside agencies, to coordinate an effective transition from hospital to home or to another facility.

The importance of discharge planning is underscored when one realizes that among Medicare patients almost 20% who were discharged from a hospital were readmitted within 30 days. In 2004, these unplanned, emergent readmissions cost the program $17.4 billion and accounted for 17% of total hospital payments from Medicare (Jencks, Williams, & Coleman, 2009). Thus, preventing avoidable readmissions not only has the potential to profoundly improve the quality of life for patients but also protects the financial well-being of health care systems (Alper, O'Malley, & Greenwald, 2014). Current health policy now incentivizes hospitals to significantly reduce length of stay and hospital readmissions (Shearer, 2010) by limiting Medicare reimbursements for patients readmitted within 30 days. Because the risks of rehospitalization are highest when patients are unable to communicate their symptoms, participate in their care, and follow discharge recommendations and instructions, successful communication is a key component during and after discharge from acute care hospitals.

Making decisions about where patients go when they leave the hospital is not always easy. These decisions involve consideration of

the patient's (a) medical status, (b) needs for follow up, (c) insurance coverage, (d) personal preferences, and (e) ability of family members to manage or assist in postdischarge care. Social and environmental factors, as well as community and patient/family supports and resources, influence the discharge decision-making process.

Conversations that take place during discharge planning typically include a large amount of new, difficult-to-understand information. An effective discharge "handoff" requires that information from the hospital be clearly documented, communicated, and understood. If patients go home, they (and family caregivers) need to understand how to carry out medication regimes, wound care, and medical and therapy protocols, and whom to call if they need help. This information needs to be written down and/or recorded using plain language and accompanied by photographs, diagrams, or whatever else helps to increase understanding. Many hospitals conduct routine follow-up phone calls 24 to 48 hours after discharge, and some schedule follow-up visits.

Patients who do not go home are transferred to a rehabilitation facility, long-term care facility, skilled nursing facility, or hospice. These facilities offer a continuum of care, the nature of which is discussed in subsequent chapters.

Challenges

Legal and Ethical Issues

The language of medical encounters in hospitals includes a wide array of terms including advance directives, pain management, informed consent, patient rights, do not resuscitate orders, end-of-life decision making, and privacy: Each of these terms represents important legal and/or ethical issues embedded in every hospital admission. Each requires hospitals to make sure that effective, authentic communication between patients (or their surrogates) and providers/hospital staff has occurred.

While all patients can be involved in decisional communication, decision making requires that patients have decisional capacity. By definition, "capacity" is different from "competency." "Competency" is a legal determination made by a judge in court. "Capacity" is a clinical determination about a patient's ability to make a specific decision. To determine "decisional capacity" requires that a functional assessment be made by "any" clinician familiar with a patient's case (Dastidar & Odden, 2011). However, not all clinicians are qualified to conduct a capacity evaluation with patients who have difficulty communicating.

Decision making for some patients may be complicated by strong evidence of impaired thinking due to a critical illness (Cassell, Leon, & Kaufman, 2001; Pandharipande et al., 2013). Sometimes acute and critically ill patients are not included in decisions regarding their own care because of their "medical condition" and/or "communication difficulties," rather than their "decisional capacity." It cannot be assumed that patients who are unable to speak are also unable to take an active role in decision making. The "key components" of a capacity evaluation assume that patients have a way to communicate:

- *Communicating a choice.* The patient is able to make a choice, and the decision is stable enough for treatment to be implemented.
- *Understanding.* The patient comprehends information about treatment. Problems with memory, attention span, and intelligence can affect understanding.

- *Appreciation.* The patient is able to appreciate the significance of information provided.
- *Reasoning.* Patients are able to weigh the risks and benefits of treatment options, as defined by their personal set of values (Merel & Murray, 2013).

Effective communication is the passageway toward determining decisional capacity. Patients who are unable to speak, are deaf and use sign language, as well as patients who speak another language, and/or have difficulty remembering and understanding information require specialists (speech-language pathology, interpreter services, audiology, psychiatry/psychology) to conduct the capacity assessment. Hospital administrators cannot assume that "hospitalists" (physicians whose primary professional focus is the general medical care of hospitalized patients), family members, or providers without training in relevant communication areas can make accurate determinations.

Communication templates can be starting points for patients to participate in discussions about their condition and care. Figure 6–9 provides examples of templates that depict plans to resuscitate, ventilator support, dialysis, and nutrition. Staff can tailor templates to meet the needs of individual patients. Templates should provide ways for patients to ask questions about procedures and the potential consequences of any decisions they make.

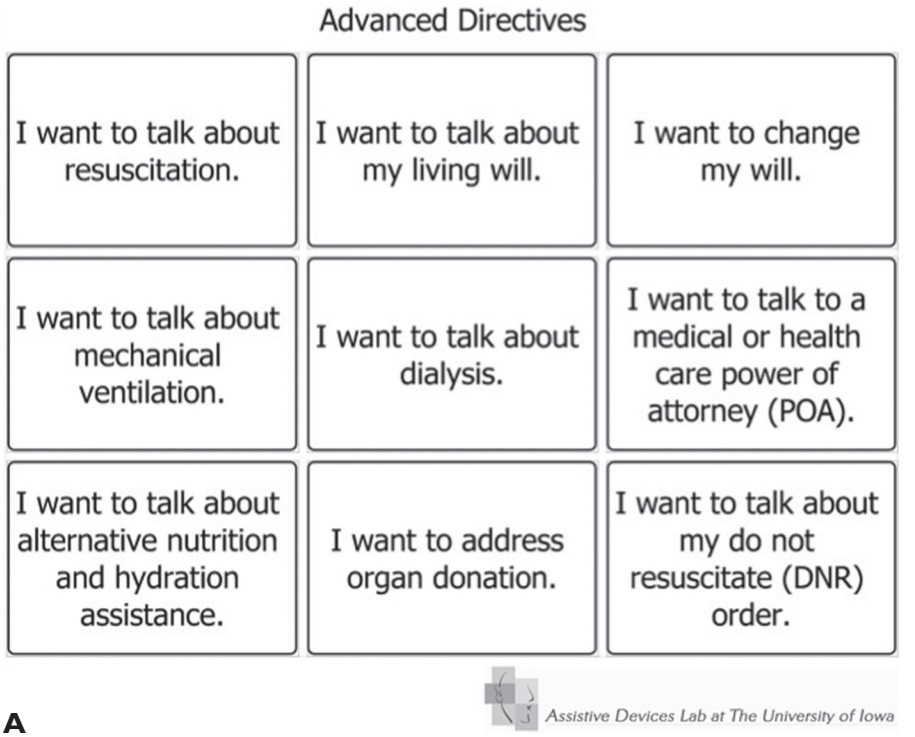
Mr. X provides a good example of the importance of providing communication supports to ensure patients have decisional capacity.

Mr. X was 83 years old when he was admitted to a surgical intensive care unit subsequent to a household accident that involved a cervical spine injury (C3-4). He was unable to move anything below his neck and could not breathe without ventilator support. Once Mr. X was stabilized, the doctor informed him and the family that his injury was irreversible. Family members asked the ICU staff many questions about the injury and about what options were available. The patient and family members were then left alone to absorb the news.

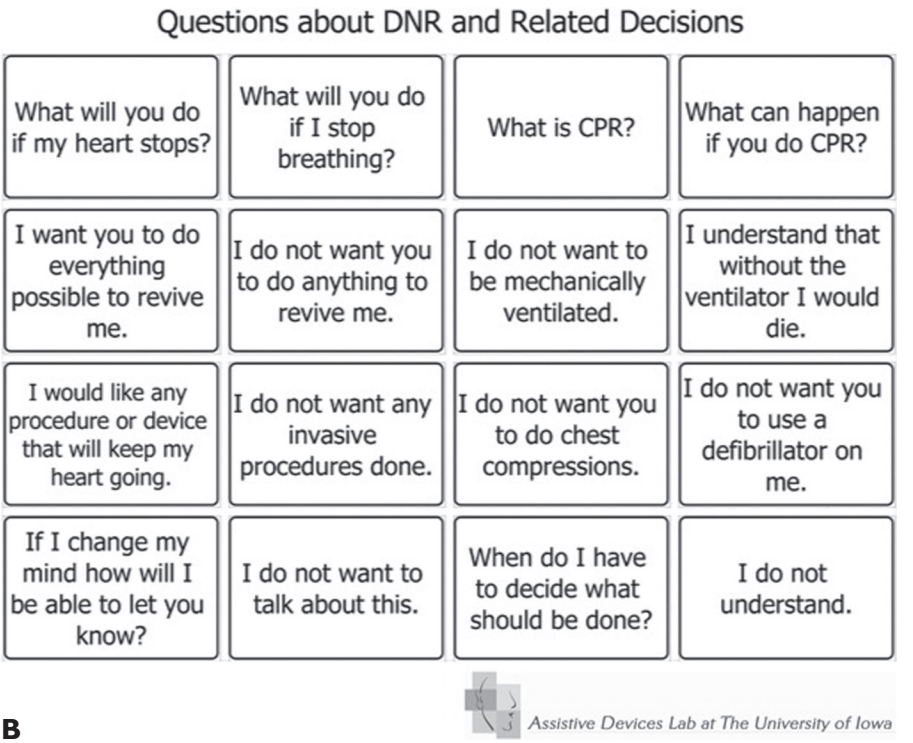
When one of the nurses returned, Mr. X's daughters were engaged in a heated conversation about whether their father would want to remain on ventilator support. One daughter insisted her father was a fighter and would want to do everything possible to remain alive—even if it meant being a vent-dependent quadriplegic. The other daughter insisted that because her father was an active and vigorous man who lived independently before the accident, he would not want to continue on life support and become completely dependent on others. Throughout their discussion, Mr. X was conscious, apparently following the discussion but unable to participate. The nurse decided to intervene.

The nurse asked Mr. X to show his daughters he could indicate "yes" and "no" reliably with his eyes. The nurse then asked him if he wanted to be part of the ongoing discussion. Mr. X quickly responded, "yes." "Do you want to contribute to this discussion," the nurse asked. He again indicated, "yes."

The family was surprised and heartened by their Dad's desire to participate. They had assumed he might not even be aware of his condition.



A



B

Figure 6–9. *Examples of pages that support discussion of general directives and resuscitation (**A**, **B**), ventilator issues (**C**), dialysis issues (**D**), and nutrition issues (**E**).*
continues

Questions about Ventilation

Why am I on a ventilator?	When will I come off the ventilator?	Can I come off the ventilator?	I want to come off the ventilator.
What happens if I am taken off the ventilator?	I understand what can happen if I am taken off the ventilator.	I understand that if I wish to live I must stay on the ventilator.	I understand that without the ventilator I would die.
I want to be taken off the ventilator.	Don't take me off the ventilator.	Can I have a ventilator at home?	Can I have a ventilator in a nursing home?
I understand.	I don't want to talk about this now.	When do I have to decide what should be done?	I don't understand.

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C

Questions about Dialysis

Why am I on dialysis?	When will I come off dialysis?	Can I come off dialysis?	I do not want to be put on dialysis if my kidneys fail.
What happens if I am taken off dialysis?	I understand what can happen if I am taken off dialysis.	I understand that if I wish to live I must stay on dialysis.	I understand that without dialysis I would die.
I want to be taken off dialysis.	Do not take me off dialysis.	Yes.	No.
I understand.	I do not want to talk about this now.	When do I have to decide what should be done?	I do not understand.

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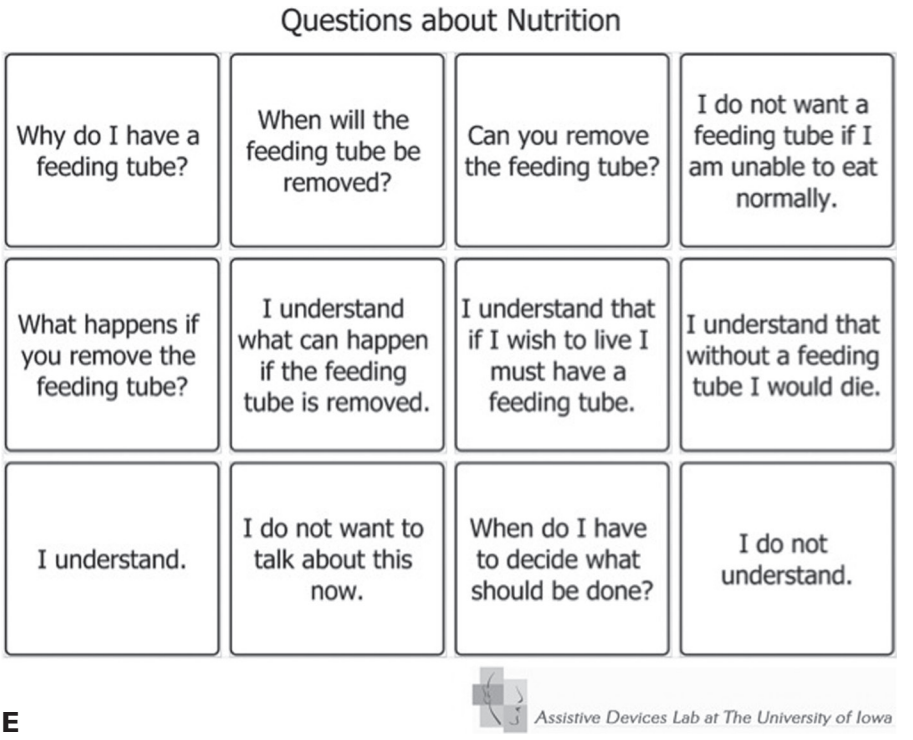
D

Figure 6–9. continued *Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.* continues



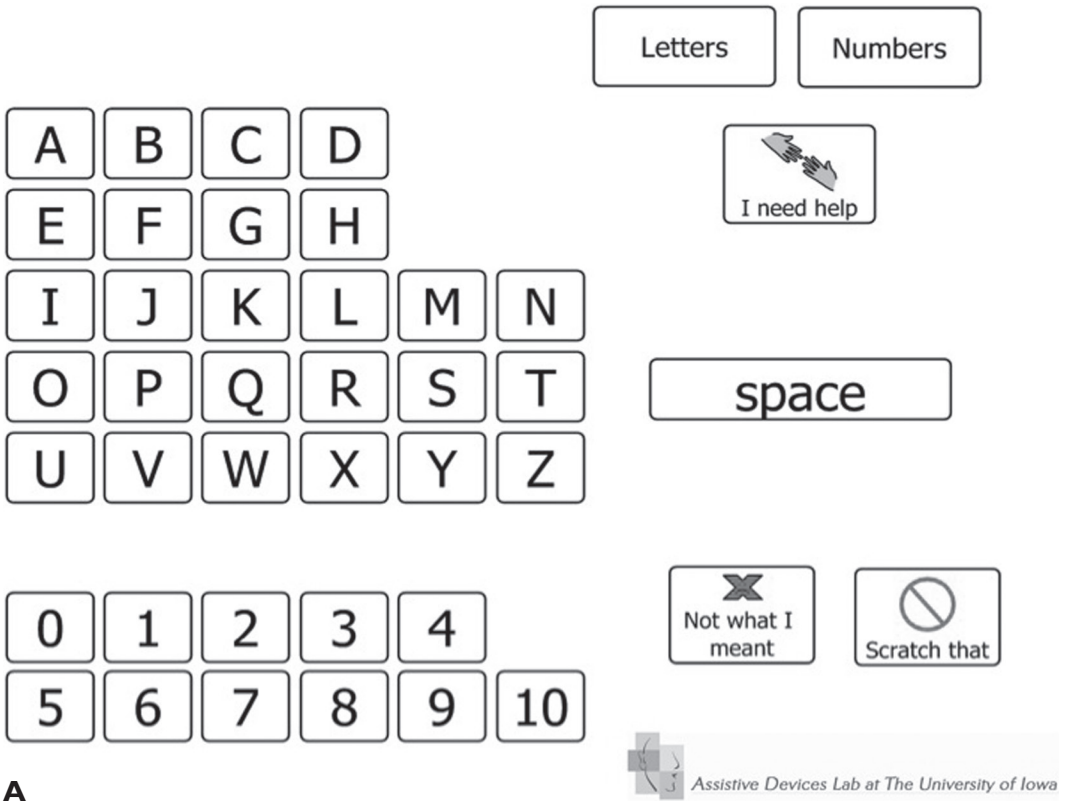
E

Figure 6–9. continued

The nurse arranged for a consult with speech-language pathology services to implement a simple communication system so Mr. X could make his wishes known. The clinician provided him with a set of low-tech communication cards, including an alphabet board with instructions for the nurse and family members on how to use partner-aided scanning. Figure 6–10 presents an illustration of a keyboard page and partner-aided scanning instructions.

Mr. X quickly became adept at using this simple communication tool. He told his family that he did not wish to be kept on life support, but he did want more time to "talk" with each family member individually so he could explain his decision and say good-bye.

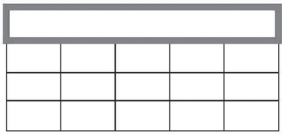
A simple communication accommodation enabled Mr. X to express his decision and his rationale for making it, giving him autonomy. It also helped reassure him that his adult daughters would not be left hurt or angry with one another after he died. He was able to demonstrate "decisional capacity." He could state his preferences consistently over time and provide a rationale that that was consistent with previous life statements (Merel & Murray, 2013).



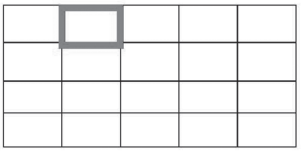
A

To assist patient in making choices:

- Establish a consistent Yes/No response.
- First, point to each row in turn asking, "Is it in this row?"



- When the patient makes a row selection, point to each successive box in the row and ask, "Is it this one?"



- Be sure to modify your speed according to the individual patient's needs.

B

Figure 6–10. A. *Alphabet board.* ***B.*** *Instructions for partner-assisted scanning. Reprinted with permission from Richard Hurtig on behalf of the Assistive Devices Lab at the University of Iowa.*

Staff Training

Few preservice and in-service training programs or continuing education courses prepare health care professionals to support the diverse communication needs of today's patient populations. Nevertheless, the need to provide communication accommodations across the spectrum of health care settings has never been clearer. As discussed in Chapter 3, some training programs are incorporating communication training protocols into their programs, and more resources are becoming available.

Happ and colleagues tested a multicomponent communication intervention program with ICU nurses in the Study of Patient-Nurse Effectiveness with Assisted Communication Strategies (SPEACS) (Happ et al., 2014). They studied a sample of 89 intubated, nonvocal patients who were awake and responsive and 30 of the ICU nurses who were caring for them. The patients, whose nurses received training in "how to assess communication" and "how to support patients in the use of a variety of AAC tools," showed significant improvement (as compared to the control group) in successfully communicating messages about pain ($p = .03$) and near significant improvement in communicating encounters about pain and other symptoms ($p = .07$). The research team has refined their training program and made it available as a condensed, 1-hour online training program and tool kit for nurses at http://go.osu.edu/speacs. SPEACS-2, a translational study conducted across six ICUs in two UPMC hospitals tests the effect of the revised program on nursing care quality and patient outcomes (Happ et al., 2010).

Downey (2014) also has developed an online tutorial for nurses and speech-language pathology trainees. Both groups increased their knowledge about the communication challenges hospitalized patients face. Both groups were also able to demonstrate knowledge of communication strategies and how to employ them to overcome communication barriers.

Researchers delineated the benefits of their online in-service tutorials and also strongly advocated for on-site coaching and guided practice as follow-up. One recommendation was small nursing "huddles" on care units to focus discussions and group problem solving around specific patients with communication challenges. The multifaceted approach of online tutorials and on-site practice may help foster a "culture of communication" and encourage interprofessional approaches to communication access problems.

Access to Equipment and Materials

Challenges that currently interfere with the deployment of communication equipment and related services in hospitals require administrative and department-level decisions. For example, who pays for the equipment? How is equipment stored, deployed, and tracked? How should infection control issues be managed? How should Health Insurance Portability and Accountability Act (HIPAA) privacy compliance issues be addressed?

- *Funds for communication equipment.* Medicare and other medical insurance companies expect hospitals to provide medically necessary devices (beds, wheelchairs, IV poles and pumps) as part of the per diem bed charges, yet they do not reimburse directly for these items. Thus, hospitals typically cover equipment and devices, known as durable medical equipment, through their capital budgets or fundraising efforts. Because communication devices are considered durable medical equipment, providing communication

equipment, while mandated, may be difficult.

- *Storing, deploying, and tracking equipment.* Hospitals must establish policies that specify where equipment is stored and who is responsible for ensuring that the equipment is functioning and that maintenance and upgrades are performed. Equally important is the tracking of equipment. Many hospitals have begun to use electronic trackers attached to devices to facilitate the tracking of devices and prevent pilferage.
- *Infection control.* Infection control issues are a major concern in hospitals. When communication tools are not reusable because they cannot be sterilized, they must be discarded. Communication templates/displays could be sent home or transferred to a receiving facility with the patient. For items that are reusable, a specific cleaning protocol must be established. In addition, housekeeping staff and unit aides need to know how to implement the cleaning protocol. Figure 6–11A shows an example of an SGD with environmental controls, and Figure 6–11B pictures a tablet mounted for use at bedside.
- *HIPAA compliance.* Having access to electronic equipment makes it possible to customize message content to meet the individual needs of patients. Consequently, patients may store personal information on hospital devices. Also, when hospitals make it possible for patients to use e-mail, social media, online entertainment, and Internet browsing on loaned devices, there need to be protocols that ensure that all personal information on hospital devices is electronically wiped out once the patient no longer is using the device.

Infection control protocols should be approved by the hospital's infection control office, and the HIPAA compliance protocols should be reviewed by the hospital's privacy officer and information technology staff. Both sets of protocols must be developed with input from unit staff so that they are implemented with high fidelity. For patients who continue to need access to communication equipment devices after discharge, SLPs and social workers can help identify equipment loan programs or, in some cases, prepare reports that justify the medical need for the device, so physicians can write a prescription to the patient's insurer.

Future Directions

The good news is that there is a growing awareness among hospital administrators, physicians, nurses, and other health care providers that effective patient-provider communication is an essential component of quality health care and patient safety (American Medical Association, 2006), as well as the basic right of every patient (The Joint Commission, 2010). With the advent of the Affordable Care Act (U.S. Congress, 2010), reimbursement policies in the United States are increasingly tied to measurable outcomes, patient satisfaction, patient safety, and accountability, so hospital leaders who understand how communication barriers impact these outcomes are more likely to explore ways to support systemic changes that address issues related to patient-provider communication.

Evidence already exists to show that poor patient-provider communication leads to

A **B**

Figure 6–11. A. *Example of an SGD with environmental control capacity mounted for use at bedside.* ***B.*** *Example of a tablet mounted for use at bedside. Reprinted with permission from Richard Hurtig.*

serious medical mishaps, increased health care utilization, and poor patient outcomes (Divi, Koss, Schmaltz, & Loeb, 2007; The Joint Commission, 2010). Research also demonstrates that effective patient-provider communication increases the likelihood that patients' problems are diagnosed correctly, that patients understand and adhere to recommended treatment regimens, and that patients and families are satisfied with the care they receive (Wolf, Lehman, Quinlin, Zullo, & Hoffman, 2008). Improving patient-provider communication is moving up the priority ladder.

The not so good news is that overcoming communication barriers in hospitals may require a new way of thinking, behaving, and working within the system, or, in three words, a "culture of care" that values successful communication throughout the hospital environment. To make this shift, all stakeholders from administers to patient care personnel need to be involved. A "culture of care" needs to reward staff for successful medical encounters, especially when they are difficult, and coach, not ~~punish, them~~ when communication breakdowns occur, so they can do better.

Currently most hospitals systems in the United States are not organized in ways that foster the kind of interprofessional collaboration that is required. Instead, service departments continue to operate in proverbial silos, each focusing on a body part or a specific function of the hospitalized patient. Providers continue to be driven by reimbursement strategies that reward number of procedures performed and hours billed rather than patient outcomes and value-based care.

Finally on a positive note, The Joint Commission's Roadmap provides guidance on how a system-wide culture of communication can be achieved, distributing the "burden" across the entire organizational structure and challenging administrators to take a leadership role (The Joint Commission, 2010), as shown in the sidebar.

How will hospitals respond to the new requirements, mandates, and fiscal imperatives driving the need for improvements in patient-provider communication? No one really knows. However, as hospital systems strive to reduce costs and improve the quality of patient care, safety, and medical outcomes, they will need to address communication barriers more directly and energetically. A simple immediate fix may involve putting low- to high-tech augmentative and alternative communication tools on each hospital unit, but ultimately staff will need to know how to deploy the right tool at the right time. Patient communication needs will have to be tagged across the continuum of care, and hospitals will need to launch new initiatives to promote a true "culture" of communication care.

Responsibility and leadership. Need to identify "go to" services and staff, and develop easy-to-implement protocols across points of care.

Electronic medical records. Need to tag and track a patient's communication needs and preferences and accommodations (and modifications of accommodations) made during the hospitalization.

Hospital-wide, interprofessional staff training. Need to identify barriers to communication and strategies for overcoming those barriers across points of care.

Resources. Need to have equipment, materials, signage, and protocols related to human supports available in multiple formats to meet the broad range of patient needs across points of care.

- Patients who do not speak/understand spoken English (including patients who are deaf, deaf/blind, blind) need interpreter services, alternative translations, and formatting of text materials.
- Patients who are unable to access the call button need alternative switches, mounting equipment, protocols, and referrals to designated services, as necessary.
- Patients who are unable to use normal modes of communication (for any reason) need referral to speech-language pathology/audiology services and in some cases occupational therapy services to provide workable strategies and technologies, as well as to monitor effective usage with providers, hospital staff, and family, throughout the hospitalization.

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