From 2000 to 2005, I lived in Starbuck, Minn., and worked in a 20-bed critical access hospital. There weren’t many options available within rural population-based health care for the sickest of the sick. When a patient needed tertiary-level and ICU care, our team would occasionally need to send the individual to the Twin Cities. There, the patient would receive critical care and then move on to receive the next level of medical care and therapy in the most appropriate facility available in order to heal to the highest possible level of wellness. If that patient was lucky, he or she might be able to return home or to the local skilled nursing facility.

Now, I live and work in the Twin Cities as medical director of Bethesda Hospital, in St. Paul, one of two long-term acute-care hospitals (LTACHs) in the state (the other is Regency Hospital, in Golden Valley). Through the efforts of state and national health care organizations over the past decade, the health care continuum now offers more post-acute care options in both rural and urban communities: skilled nursing facilities (SNFs), transitional care units (TCUs), inpatient rehab facilities (IRFs), and home health agencies (HHAs), as well as LTACHs.

But not every physician is familiar with the role that these different care sites play in treating acutely ill, complex medical patients. On a nearly daily basis, other physicians ask me: What exactly does an LTACH do?

**What is a long-term acute care hospital?**

LTACHs are licensed specialty hospitals focused on providing acute medical care to critically ill patients with complex conditions over an extended period of time, as compared to community or tertiary short-term acute care hospitals (STACHs). Currently, there are approximately 430 LTACHs in the United States. They are accredited by the Joint Commission and reimbursed by Medicare and other public and private insurers.

LTACHs were created in the 1980s to enable medically complex patients to be discharged from acute hospitalizations, in part as a way to control Medicare spending on the high-utilization, critically ill patient. Medicare data indicate that LTACH patients are “the sickest of the sick”; they tend to have the highest acuity as measured by a case mix index (CMI), as compared with traditional post-acute care providers (i.e., home health, skilled nursing facilities, TCUs and inpatient rehab facilities). Bethesda Hospital has the highest CMI in the state.

Patients don’t live permanently at an LTACH; the average length of stay for LTACH patients on Medicare is 25 days, though some patients may stay for longer or shorter periods. The specialty hospital focuses on preparing a patient to 1) live independently and ultimately return to his or her home community or to 2) achieve the highest level of wellness possible and then move on to the next level of care such as a skilled nursing facility, transitional care unit, or private home with home care services.

**Admissions criteria**

LTACH patients require constant medical management by a physician and advanced nursing care staff. Their conditions include, but are not limited to, multi-organ or multisystem failure including respiratory and cardiac complications, postsurgical or organ transplant complications, complex wounds, multiple injuries, and traumatic or acquired brain injury. Over 40 percent of our patients need help being weaned from a ventilator; some require inpatient dialysis. These patients are often referred directly by intensivists or hospitalists from ICUs and must undergo a clinical assessment, meeting certain criteria to ensure that they need ongoing acute care prior to their admission to Bethesda Hospital.

The top four criteria indicating a patient is ill enough to require LTACH services are:

- The patient needs ongoing care at an acute hospital level.
- The patient requires daily physician visits to monitor and change plan of care.
- The patient has had an admission at a short-term hospital of greater than five days.
- A lower level of care has been unsuccessful, and the patient has now been readmitted to the original hospital.

Bethesda recently began offering a unique identification process (the Bethesda Hospital Trigger Tool) that helps referring physicians and case management staff know when is the right time to call upon our expertise to serve the needs of their patients who are ready to make a transition. This tool integrates with different electronic health records (EHRs) to compare patients’ conditions (i.e., DRGs) to specific triggers that meet Bethesda Hospital criteria. The tool generates a patient list for case managers and physicians each day to focus their attention on and connect with Bethesda for a potential referral and transition. Not all of these patients would eventually get transferred, but the Trigger Tool helps decrease the staff’s reliance on memory of a patient’s condition and instead hardwires the use of specific criteria into their decision-making.

LTACHs offer comprehensive, personalized medical treatment and therapies designed to improve outcomes for medically complex patients. They also pro-
vide a variety of medical and rehabilitation services that are not routinely offered at other types of post-acute facilities, such as care of complex wounds and injuries and inpatient dialysis. In addition, they offer comprehensive laboratory and radiology services on site. LTACHs offer a staff of medical specialists and subspecialists. The Bethesda Hospital staff includes pulmonologists, neurologists, psychiatrists, psychologists, nephrologists, pathologists, geriatricians, physiatrists, palliative care, infectious disease physicians, and general and plastic surgeons; the hospital also has in-house respiratory, pharmacy, laboratory, radiology, case management, and social service expertise.

Core competencies offered by LTACHs include respiratory care (including ventilator weaning) and complex medical care; few, such as Bethesda, also offer neurovascular care (both medical behavioral care and brain injury services). A key service is successful ventilator weaning, which means that patients will be less likely to be readmitted to the hospital after LTACH discharge, and that patients will be able to retain personal mobility; travel to physical therapy; free themselves from heavy, restrictive medical equipment; regain their vocal abilities so they can clearly indicate their needs; heal more quickly; and, hopefully, have more choice when it comes to choosing a step-down facility when they are ready to transition. When rates for ventilator-associated pneumonia, catheter-associated UTIs, and central line bloodstream infections are lower than national benchmarks, the associated improved quality outcomes lead to a better overall patient and family experience. (Bethesda Hospital reports zero cases of ventilator-associated pneumonia in calendar year 2011 and received national recognition for its ventilator weaning pathway.)

An interdisciplinary approach
Staff at LTACHs typically use an interdisciplinary approach to diagnose medical conditions, devise treatment plans, and set goals that will result in positive long-term outcomes. Physicians are integral members of these teams and are supported by nurses, many of whom have advanced training in areas such as wound, ostomy, and continence care; physician specialists and subspecialists; pharmacists; nutritionists; diabetes educators; and occupational, speech, and physical therapists. Spiritual care, creative arts therapies, and recreational therapy also may be part of a patient’s treatment plan. Caregivers partner with patients’ families to ensure that all needs are being met, that progress milestones are being achieved and that expectations are being managed.

Effective communication among LTACH staff, patients and families, and community providers is essential to ensuring smooth transitions from one location to another. Bethesda’s interdisciplinary approach is currently being studied as a model in a University of Minnesota interprofessional experience with the next generation of health care providers. Students from the U’s medical school, pharmacy, social services, etc., who currently work in an interdisciplinary team environment are learning how to operate most effectively and how to consistently improve the delivery of care within a team vision. Bethesda is a part of their real-life, hands-on learning lab.

Reducing the overall cost of health care
LTACHs have been shown to reduce health care costs in a number of ways. First, care provided at an LTACH costs less than care provided at a short-term acute-care hospital ICU for appropriate patients. For patients with tracheostomies, for example, Medicare spending for care has trended lower for those who used an LTACH than for those who did not.

Second, because of the interdisciplinary approach and use of innovative therapies, some patients and families do better at an LTACH than they might at a short-term acute-care hospital. Superior quality outcomes, such as lower rates of ventilator-associated pneumonia infection, also mean that patients’ length of stay is shorter and they can be transitioned to a lower-cost setting following the LTACH stay. Studies also show that many LTACH patients are more likely to be discharged to home than are individuals discharged from a short-term acute-care facility.

In addition, patients treated at LTACHs tend to be readmitted to short-term acute-care hospitals less often than patients treated in other post-acute care settings. MEDPac’s 2004 Report to Congress noted that patients using LTACHs were readmitted to short-term acute care hospitals 26 percent less often than patients with similar conditions who were being cared for at skilled nursing facilities.

A patient’s relatively longer length of stay at an LTACH allows the physicians who deliver patient care the gift of time to create customized care plans and develop meaningful, lasting relationships with patients and their families. This reality helps to build a strong sense of community within the LTACH and contributes to physicians’ satisfaction with their work. For example, in 2011, Bethesda Hospital had the highest physician satisfaction scores in the HealthEast Care System, which includes three STACHs.

Achieving IHI’s goals
The Institute for Healthcare Improvement (IHI) has set forth the triple aims of quality outcomes, reduced costs, and increased patient satisfaction to improve the overall health care delivery system. LTACHs have emerged as an important player in the health care continuum in terms of achieving these goals. An LTACH is an efficient, desirable post-acute care option on the health care continuum. It provides a safety net for post-ICU patients, improves quality outcomes, and helps control overall total cost of care while caring for the entire family unit. In population-based care, with employers, payers, providers, government, and consumers all asking questions and offering solutions, LTACHs have demonstrated expertise in serving a highly defined patient population.

Patients who present with precarious, complex clinical conditions have a powerful impact on the utilization of health care dollars. As the accountable care transformation continues, providers will focus more and more on innovative models of care in the community. These may include new specialty centers, parish nurse programs, expanded home care services, etc. And the alphabet soup of post-acute care industry caregivers—SNFs, TCS, IRFs, HHAS, and LTACHs—will be dedicated to making everything fit: appropriate, specialty patient care for the best quality outcomes and best patient experience in the most cost-effective manner after transition from an STACH.

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