For years, when you thought of the “typical” rehabilitation patient, no doubt certain characteristics came to mind. You would perhaps envision someone suffering from the aftereffects of stroke, spinal cord injury (SCI) or some other sudden, life-changing event. However, it may be time to adjust this mind-set.

Kessler Institute for Rehabilitation is seeing a shift in its patient demographics, and while we continue to care for many individuals with stroke or SCI, the hospital is also treating an increasing number of people with moderate to severe traumatic brain injury (TBI), joint replacement, major organ transplantation, obesity, cancer, chronic pain, diabetes or debility. These patients need additional, multidisciplinary services not available at facilities that typically deliver less intense rehabilitation care.

This rising patient population presents both a challenge and an opportunity for the rehabilitation field. Providers must have the staffing and resources to serve these individuals. At the same time, by adjusting to meet these new demands, rehabilitation hospitals can drastically improve the lives of patients and establish an even stronger presence in the community.

To grasp how sweeping the change in rehabilitation medicine is—and how a hospital can adapt its structure—consider Sally Smith*, a recent patient at Kessler Institute for Rehabilitation who represents this expanding patient base. (continued on page 7)
The global economy is in extreme distress. Those of us in medical rehabilitation should stop for a moment, though, and look beyond our personal or facility’s economic concerns, and ask, “How does this impact persons with a disability (PWD), and what can I do to help?”

Our federal and state governments are already downsizing discretionary spending programs as they face reduced tax revenues and increased nondiscretionary obligations. States are looking at how to cut back on Medicaid by raising eligibility thresholds, decreasing benefits, and moving participants out of fee-for-service plans and into managed care. These changes reduce accessibility to rehabilitation and choice of providers for PWD who rely on Medicaid. Simultaneously, the federal government will look to constrain Medicare spending, perhaps by limiting access further and more rigidly enforcing medical necessity denials that retrospectively deny coverage to rehabilitation hospitals.

Charitable giving declines when the economy dips, too, which means that not-for-profit rehabilitation hospitals will be doubly burdened by the changing economy. With reductions in philanthropic revenues, many of these hospitals may have to cut back on “nonessentials,” such as free care, programs like wheelchair sports, and anything not viewed as “mission critical.”

Work and education opportunities for PWD also decline in an economic downturn, as competition for existing jobs and school admissions increases. Employers and schools are likely to preferentially select able-bodied candidates. More Americans, including PWD, will lose employer-sponsored health insurance or pay more to participate, face increasing pressure to join HMOs, or see erosion in the scope of coverage for existing plans.

Those family members, friends and neighbors who so often offer informal caregiving support to PWD may lose their own jobs or be forced back to work to supplement family income, reducing the level of personal support available to many PWD. The parents of children with a disability, and others in similar situations, will face even more challenges to their own long-range financial planning, both for their own retirements and for the long-term care of their disabled children who survive them.

What can we do? First, we can celebrate that the health care industry is one of the strongest parts of the economy, and we can help reframe the all-too-common view that health care is somehow a burdensome drain on our economy. With reductions in philanthropic revenues, many of these hospitals may have to cut back on “nonessentials,” such as free care, programs like wheelchair sports, and anything not viewed as “mission critical.”

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Much political and media attention has been focused in recent years on improving the treatment of traumatic spinal cord injury (SCI). Investment is growing, and a number of novel therapies have emerged. Although many of these treatments are being studied, none has yet proven to be the optimal approach. Still, there is excitement in the field that one or more of the therapies may prove effective in enhancing patient outcomes. A number of them are even pending FDA approval.

Kessler has been involved in several of these trials and plans to continue to be at the forefront of research for persons with SCI. While there is great hope for curative techniques, it is critical that we maintain the high level of medical care and rehabilitation for our patients. Here is a sampling of some of the more promising new therapies.

Activated Macrophages. A Phase I study in 2000 looked at the safety of incubated autologous macrophages as a treatment for complete SCI. Autologous activated macrophages were injected into the spinal cords of patients within 14 days after injury, and there was a higher rate of conversion to incomplete SCI status compared with historical controls. A subsequent worldwide Phase II trial has been halted, after two-thirds of patients were enrolled, due to financial reasons. However, analysis of the available findings will soon be released.

Oscillating Field Stimulation. A device the size of a cigarette lighter attempts to stimulate nerve processes to grow through use of an electrical field. A Phase I trial of 10 subjects in 2005 reported lower mean pain scores (VAS) for patients using this device, as well as an increase in mean LT and PP scores and in motor status. Further research has been approved by the FDA, although the study has been discontinued for the time being.

Cethrin. This recombinant protein-based inhibitor of Rho signaling is being studied to promote neuroprotection and neuroregeneration in the central nervous system. Cethrin is co-delivered with a fibrin sealant; to date over 38 patients have undergone treatment with no reported adverse events directly related to the treatment.

Minocycline. Beneficial effects on inflammation, metalloproteinase inhibitory properties, nitric oxide production and apoptotic cell death have all been reported for Minocycline. This antibiotic was shown to be effective in animal models, and is currently being tested on 20 patients in a double-blind, placebo-controlled trial at the University of Calgary.

4-aminopyridine (4-AP). For the chronic phase of SCI, 4-AP and its long-acting formulation Fampridine-SR (Acorda Therapeutics) has been studied. 4-AP blocks K+ channels and permits axons to transmit impulses, resulting in increased neurological function. Phase I and II studies showed improvements in persons with incomplete injuries with respect to pain, spasticity, b/b function and sexuality. The Phase III trials for the indication of spasticity did not show statistical significance. However, this drug is currently in Phase III trials for multiple sclerosis, with some reported success.

HP-184. The K+ and Na+ channel blocker HP-184 (Aventis) looked promising in early trials, but a recent trial evaluating motor score change in patients with incomplete injuries was not significant. No further study is currently planned.

Fetal Cell Transplants. These have gained notoriety, but prospective studies in SCI have not proven significant efficacy. Patients are cautioned not to go overseas for these procedures until there is further safety and efficacy data.

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Fantastic Journey
Kessler nurses travel the road to Magnet status

Magnet designation is a coveted certification. Not only does it recognize excellence and innovation in nursing, it is a reflection of the quality of patient care. In 2007, U.S. News & World Report’s annual showcase of America’s Best Hospitals observed that being a Nurse Magnet facility contributed to the total score for quality of inpatient care. Of the top 10 hospitals on that year’s honor roll, seven were Magnet hospitals.

Earning Magnet status is rare for a rehabilitation hospital, but Kessler—always at the forefront of innovation—is in the process of achieving that goal.

Focus on Rehabilitation: Tell us how Kessler got started in its process of becoming a Nurse Magnet hospital?
Karen Liszner, R.N.: So far, it has taken us almost two years in preparation. It is an ambitious program that isn’t uncommon for acute care hospitals, but is in the rehabilitation setting.

We began with a series of “Nursing Days,” where we gathered the entire nurse population together to review the thought process of our journey to Magnet status. From those meetings there emerged a commitment to the plan, a model of shared governance and a lengthy new clinical ladder.

Celeste Holwick, R.N.: Even the term Nurse Magnet was foreign to me. But the enticement was the clinical ladder, because it is objective rather than subjective, and it helps to motivate you to attain the next level. It rewards according to your abilities and your willingness to put the effort in. Of course, if you don’t want to, you can just show up and do your job. But you can also put more into your role if you choose and get rewarded—which makes it a more enjoyable thing.

Focus: In what ways is the clinical ladder different?
Liszner: Kessler’s previous clinical ladder had two steps—staff or senior level. The new one has four—staff level, proficient, senior and then clinical coordinator. Not only that, it was in part developed by the nurses, with guidance from the therapy model. The focus of the Magnet journey is shared governance—a flat organization with an empowered staff. Professional development, education and research are all critical to that.

Focus: What does the governance structure require?
Liszner: It requires a time commitment. The Leadership Council meets every other month and brings together key chairpersons with the chief clinical officer and the directors of nursing. The main thing is to share information and keep the lines of communication open. In the off month, the entire nursing management team comes together to review various topics such as development of education in specific subjects, ways to enhance communication between shifts, or patient safety. There are a lot of committees, but it is well organized and we actually have accomplished a great deal.

Holwick: The principle is, you’re self-governed. You have a peer group and you can take your concerns there. Already there have been small things that have started at the bottom and moved up. For example, one frustration we had as nursing staff was the lack of working equipment and sufficient supplies. Often, this did not get communicated effectively beyond our own grumbling to each other. Now there is a new avenue for these complaints and it was directed to the Unit Council, made up of peers from our own floor. They were able to assess the actual needs and present it to the Hospital Council, again a peer-guided group. This council facilitated the purchase of the necessary equipment, as well as a system for reporting faulty equipment to be repaired or replaced more effectively. The Magnet program’s approach teaches that what you say really does matter. It forces you to ask the questions: Is Kessler a place that attracts people, and a place where people want to stay? It is and I think the effort is proving that. Nurses tend to frit from place to place, but the Magnet program may help them find their niche.

Focus: What effect has the credentialing process had on patients?
Valerie Vermiglio-Kohn, R.N.: We treat many stroke patients and have worked very hard to incorporate...
all levels of personnel, especially the rehabilitation assistants. We’ve tried to incorporate their goals with our goals. Patient care, safety, minimizing falls—all of those things have been a focus of our journey. We’re trying to work in more of a “team” environment, and that collaboration benefits the patients.

**Amy Colombo, R.N.**: People were a little skeptical in the beginning, but we’ve come to feel really empowered. In the past you’d bring your challenges to the managers, but now we have councils. We have a meeting every two months and go over everything, put our heads together and try to come up with our own solutions. It’s gotten all of us more engaged. We feel more responsibility. And if we set out a solution for a problem, we want to make sure it works.

**Vermiglio-Kohn**: In the beginning we weren’t always taking everybody’s suggestions with the same concern, but now we try hard to do that. Also, we address things we weren’t addressing before, like education. Nurses like to give patients educational materials concerning diet, or discharge instructions. We’ve worked hard to get things that are good for the patients and the nurses. It also makes my job easier if we’re working toward the same goals. Everybody’s load is a little lighter if we’re all marching in the same direction.

**Focus**: What will be the challenges in the future?

**Liszner**: One of the things you have to be concerned about is keeping up the excitement and momentum. Previously, if a nurse had concerns or a problem, he or she would go to the manager and wait for a solution. Now the staff is empowered to come up with strategies to improve and change things. It is a totally new way for the department to function.

**Vermiglio-Kohn**: We’re very hopeful that Kessler will get the Magnet status, because we feel that we give excellent care, and it would be beneficial to have that recognition.

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**Magnetic Attraction**

The Magnet Recognition Program® was developed by the American Nurses Credentialing Center, a subsidiary of the American Nurses Association (ANA), to recognize health care organizations that provide nursing excellence. The program is based on quality indicators and standards of nursing practice defined in the ANA’s Scope and Standards for Nurse Administrators in 2004.

Magnet designation includes an appraisal of qualitative factors, referred to as “Forces of Magnetism,” which were first identified in 1983. In that year, a study detailed 14 characteristics common to the organizations that were best able to recruit and retain nurses through times of shortages. These characteristics provide the conceptual framework for the Magnet appraisal process, and include: a knowledgeable nursing leadership that follows a “well-articulated, strategic, and visionary philosophy” in day-to-day operations; an organizational structure that allows for decentralized decision-making; a supportive workplace, with feedback welcomed and valued; and competitive compensation packages.
Health Care Reform: Is Change Coming?
Rehabilitation medicine should have a role in the debate

Bruce M. Gans, M.D.

President-elect Obama and his transition team face many challenges as they develop plans for taking office this January, including four major issues: the economy, the Iraq and Afghanistan conflicts, education reform, and health care reform. It’s safe to assume that the federal budget deficit will be much worse than currently estimated, which will make balancing the national budget that much more difficult. It will likely cause our new leaders to radically rethink tax and spending policies.

The Obama administration may be more open to putting everything back on the table again for review, including taxes, entitlement programs, and even the defense budget. The new administration may propose a longer-range plan rather than a series of quick fixes, or so we hope, which could mean that health care reform is slowed down a bit.

A key question for all of us is whether reform will be viewed as a means of saving costs in the short term or a way to control health expenditures and health care quality for the long term.

The new administration may be more likely to seek a solution that achieves universal health care coverage, but the risk is that the depth and scope of existing coverage may be compromised to pay for a watered-down plan that will cover more individuals. Those who are reforming health care public policy may see only the option of good coverage for acute care health needs, rather than also recognizing the necessity to cover chronic disease and rehabilitation care. Chronic disease and rehabilitation are less well understood and less valued by many in our society, especially by those who don’t have affected family members. In addition, rehabilitation is one of the smaller, traditionally politically quieter segments of the total health care budget. The temptation for those trying to “solve” health care spending will be to look right past these less noticeable, yet very important, categories of health costs in an attempt to mandate affordable care for the majority of Americans.

Importantly, the provider community should work closely with the consumer organizations that represent persons with disabling conditions. Through coalitions and partnerships, we should be able to press for positive change and reforms that will benefit our patients.

The field of rehabilitation must be very visible and very vocal in this upcoming health care reform debate. We can only hope that this administration will be open to input from the beginning by the real stakeholders, those of us who are involved daily in the field of rehabilitation, so that our patients’ needs are understood and valued as new health care policy is made.

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Shifting Times
(continued from page 1)

Difficult Adjustments
Mrs. Smith was recently diagnosed with colon cancer. After undergoing surgical resection of a large mass in her intestine and colostomy placement, she had a lengthy hospital stay that included a postsurgical infection and other complications. After several weeks, Mrs. Smith was medically stable and ready for discharge. Yet she was debilitated, underweight, depressed by these difficult changes in her life, and unable to care for herself alone—and she faced additional treatment with chemotherapy.

Mrs. Smith was admitted to Kessler’s Chester campus, where she received both physician and nursing services to manage her complicated medical situation. Her multidisciplinary team met daily to address how best to prepare their patient to go home in a timely and safe manner.

Marshaling Resources
Unfortunately, Mrs. Smith’s postsurgical infection had not completely resolved and it recurred despite ongoing antibiotic therapy. An infectious disease consultant was called in; she recommended additional debridement of the wound, an adjustment to the IV antibiotic, and a vacuum-assisted closure of the affected area. After these steps were taken, a Kessler wound care specialist changed the dressing as prescribed.

A nutritionist focused on Mrs. Smith’s weight loss, diabetes, hypertension and recent GI surgery status. Physical therapists helped her regain mobility and begin to walk on her own again, while occupational therapists assisted with activities of daily living.

When her oncologist deemed her ready, Mrs. Smith was transported regularly to a cancer center for chemotherapy. Kessler staff monitored her for the development of any side effects from the treatments.

The team continued to tackle other challenges. A psychologist evaluated her depression and began psychotherapy. Mr. and Mrs. Smith received education about her colostomy, and a case manager arranged for a visiting nurse to help with the colostomy at home.

Despite all of these medical complications, Mrs. Smith made excellent progress toward her rehabilitation goals, including walking and self-care. She will be discharged soon, and will receive outpatient care as needed, in addition to chemotherapy treatment.

A Service Spectrum
As with Mrs. Smith, many people in the inpatient rehabilitation setting—once they have been successfully treated in an acute care hospital—will need multiple rehabilitative services. Rehabilitation hospitals can effectively meet the needs of this growing group by offering a spectrum of services that can be matched to a person’s specific functional deficits, complex medical needs, and potential to benefit in a timely way from the services.

Ultimately, rehabilitation facilities do not treat a specific diagnosis or diagnostic category; they treat the particular needs of the individual. People who are debilitated may need help with ambulation, for example, regardless of the primary diagnosis. Patients who have surgery for esophageal cancer and now have dysphagia may require the services of a speech therapist and a nutritionist. Medically complex patients with elective hip or knee replacements may not be healthy or safe enough to go home immediately.

A person with moderate to severe TBI may not have major physical challenges, but may need multidisciplinary rehabilitation services to deal with impulsivity or other cognitive issues related to the brain injury, as well as to improve mobility and function.

Unfortunately, the trend in reimbursement has been to classify individuals by primary diagnosis, when what we need to do is match the right services to the rehabilitation needs of our patients, whatever the diagnosis. And given the changing demographics of these patients, this will be ever more imperative in the future.

*Name and details changed to preserve patient confidentiality.

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Cover Story
The physical signs of trauma take time, of course, to heal. Fortunately, we know patients are recovering because we can objectively see and measure their progress. But what of the more elusive psychological stresses faced by those who’ve experienced an injury or disability? Here, properly evaluating headway, or even recognizing a problem in the first place, can prove challenging—but certainly not impossible.

Delineating Disorders

For example, delirium—a cognitive disorder—is a sudden state of severe confusion associated with rapid changes in brain function. This results in a reduced level of consciousness, sensory misperceptions and illusions, sleep disturbances, drowsiness and disorientation. Symptoms of delirium may include an inability to concentrate and disorganized thinking—patients can exhibit rambling, irrelevant or incoherent speech. Inpatient delirium may occur in the form of post-traumatic amnesia or cognitive confusion. After discharge, patients may not remember anything about their hospitalization. Once home, they may begin to experience restlessness, anxiety or post-traumatic stress.

Depression, which differs from delirium and confusion, is an affective disorder—one that disrupts a person’s mood and emotional state. It comes as the patient begins processing past events and future prospects. Anywhere from 10 to 42 percent of traumatic brain injury patients meet the criteria for major depression and the incidence increases as they adjust to their loss of skills or abilities. Many times this starts six months to one year post-trauma and leads to clinical depression if the patient has adjusted poorly to his or her circumstances. Community reintegration should be a major focus of therapy.

First Signs

Clinicians often first notice cognitive and affective disorders in the outpatient setting, because of the psychological aspects of a recent traumatic event. In some cases, the patient experienced the trauma years ago, but the untreated disorder causes social isolation leading to treatment. In fact, only 40 to 50 percent of patients receiving outpatient cognitive rehabilitation and psychological services at Kessler Institute for Rehabilitation are referred from the inpatient setting. The balance come through Kessler outpatient services or the community.

One of the major challenges medical professionals face when evaluating these patients is to differentiate between cognition and the symptoms of a condition. A patient with double vision, for example, will likely fail at visual-spatial tasks, despite intact abilities. Without a baseline evaluation, the diagnosis is convoluted. The need for periodic reevaluation varies by individual and may be deferred until the patient is ready to meet a milestone, such as returning to work.

Patients Helping Patients

Much of Kessler’s Cognitive Rehabilitation therapy is done in groups, to simulate a more natural healing environment. Patients with similar needs help each other learn to process common ideas. The family is involved through regular meetings, communication logs and special events. Those who are at risk for major depression receive individual psychotherapy. Both group and individual therapies help patients adjust to their post-injury skills, recognize future options and avoid isolation. The average length of outpatient therapy is usually three to eight months depending on a person’s rate of healing.

Patients with traumatic brain injury or right hemisphere stroke usually have good outcomes: working, driving and reconnecting with the community. Successful therapy, however, is more than just reaching individual milestones. Instead, patients and clinicians should view success in terms of an overall acceptable quality of life.

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