SPORT HAS BEEN a part of rehabilitation since the 1940s, when it was incorporated into the recovery process of soldiers injured in World War II. Although simply therapeutic at first, athletics for people with disabilities soon grew into contests such as the Paralympic Games, which now attract more than 4,000 participants at the summer session alone.

For individuals who use a wheelchair, there are more opportunities than ever to take part in recreational and competitive sports. At the same time, the expanding slate can come with possible barriers to joining in.

**Expanding Opportunities**

Individuals with spinal cord injury (SCI), who make up the bulk of wheelchair users, are typically younger and accustomed to being active. Taking part in an athletic activity not only helps with gaining and maintaining physical function, but it also can provide the psychological benefits of community, mastery of a task and performance of an everyday, “normal” pursuit.

Although many of today’s adaptive sports are based on traditional versions modified to meet the needs of people with impaired function, several others have no equivalent in the able-bodied setting (see sidebar on page 7). These alternatives collectively offer a wealth of options.

Yet the changing health care environment has shifted responsibility for finding and taking advantage of physical activities from medical centers to patients and their families. In the past, when inpatient rehabilitation stays were much longer (up to a year in some cases), specialty hospital personnel were often able to spend time with individuals to...
Improving productivity in the current cost-cutting climate

TODAY’S HEALTH CARE practitioners and providers face unprecedented economic pressures from all directions. These include potentially devastating cuts in Medicare and Medicaid reimbursements; increasing retrospective denials by Medicare contractors; tighter managed care constraints and administrative barriers; and exclusions from preferred provider networks that select clinicians based not only on the quality of care provided but also on cost.

Given the adverse impact on net income and even fiscal viability from these converging challenges, three options are available: work harder, work smarter or reduce revenue expectations.

Working harder might include expanding the number of days and hours of patient care, or shortening the duration of outpatient visits. But many clinicians have already expanded office hours, and most of our patients, because of their complex needs, cannot be shoehorned into shorter visits.

While one can always lower expectations, there are limits to how much less one can earn and still remain in operation.

Thus, working smarter is the most desirable and palatable tactic. As we begin the new year, here are some suggestions:

• **Increase the percentage of higher-yield billable services provided, ensuring, of course, that they are medically justifiable.** For instance, would extra training enable you to provide a new procedure or treatment approach that is attractively reimbursed?

• **Code accurately.** Too many physicians undercode and are thus underpaid. Seek external audits of your billing to ensure accuracy and appropriateness.

• **Comply proactively with administrative requirements by payers.** Develop standard operating procedures for obtaining precertifications, appealing denials and following up on improper payments. Automate these processes whenever possible.

• **Be selective when accepting insurance fee schedules.** Assess your payments and consider withdrawing from insurers that don’t provide adequate reimbursement.

• **Use technology.** This includes electronic scheduling and automated appointment reminder systems, as well as enabling patients to schedule their own appointments or request refills online. These efforts should improve productivity, free staff time for revenue-generating tasks such as following up on denied claims and, studies find, improve patient satisfaction.

Of course, professional obligations and standards of ethical practice must always come first regardless of economic pressures. For instance, while it might be tempting to close your practice to Medicaid patients or the uninsured because they don’t meet your revenue goals, it is important to remember that these patients may need you the most.

A high-level view of health care—and the natural sense of advocacy that flows from it—can also help us on the road to working smarter. Advocating at the local, state and federal levels can stem the changes that are making our jobs harder and help us meet the overriding goal of the health care system: quality patient care.
A personalized, multispecialty approach improves the management of spasticity

BY STEVEN KIRSHBLUM, M.D.

SPASTICITY IS a muscle tone disorder that affects many rehabilitation patients. It is a co-occurring condition that significantly interferes with quality of life for approximately 70 percent of individuals with spinal cord injury and 30 to 40 percent of stroke and brain injury patients. Its complex nature makes treatment a challenge, but physicians at Kessler Institute for Rehabilitation are helping to resolve the complications resulting from spasticity. The Spasticity Management Program is individualized and inclusive of a broad spectrum of clinician perspectives and skill sets, increasing the likelihood of positive outcomes.

A Distinctive Disorder

Defined as the resistance to passive stretch, spasticity is characterized by both positive symptoms, which are generally easier to treat and include involuntary rhythmic contractions, clonus, and hyperreflexia, as well as negative symptoms, which include muscle weakness, incoordination, fatigue and pain.

The presentation and effect of spasticity varies from person to person. For some individuals, it yields virtually no disruption to functioning. For others, symptoms impinge on basic activities, such as mobility or basic actions of daily living that may affect participation in recreational and occupational pursuits. This can lead to detrimental psychological outcomes, such as poor self-esteem. Pain, stiffness and spasms also might result in contracture, a permanent shortening of a muscle or a joint that further decreases functioning and life enjoyment.

Investigative Work

By the time patients are referred to Kessler’s Spasticity Management Program, their condition has usually proved poorly responsive to previous interventions. Strategies might have included physical or occupational therapy, like stretching, gait training, positioning or transfer training; antispasmodic oral drugs, such as baclofen or tizanidine; injectable neurotoxins (e.g., botulinum toxin); peripheral nerve blocks, such as phenol or alcohol injections; intrathecal medication trials; or surgical evaluations. Therefore, it is important to conduct thorough, individualized assessments to determine the treatment history and response, and the range of options moving forward.

The diagnostic work begins by investigating symptoms and the degree to which they are causing pain, contracture, impaired sleep, reduced functioning and poor quality of life. Potential triggers also are identified. Assessment scales help characterize the nature and impact of symptoms, although no single measure is considered universally, clinically acceptable.

A treatment decision tree, based on the severity and scope of the spasticity, helps narrow selection. For instance, localized spasticity may better respond to neuromuscular blocks or injections than does diffuse spasticity.

Treatment should be based upon spasticity symptoms themselves and the effect they are having on the patient, and not upon the severity of the underlying medical condition, which is not necessarily correlated with the degree of spasticity. Mild underlying disease does not necessarily indicate benign levels of spasticity. Even a mild spinal cord injury, for example, can cause debilitating spasticity that might require aggressive treatment.

Assessment concludes with determining the patient’s cognitive and medical status to rule out potentially contraindicated treatments. From there, clinicians initiate an individualized care plan as conservatively as possible, factoring in how the regimen might affect the individual and the costs and benefits associated with intervention.

Diverse Viewpoints

One of the most important elements in Kessler’s Spasticity Management Program is the integration of multiple subspecial-

Kessler’s Spasticity Management Program is inclusive of a broad spectrum of clinician perspectives and skills.

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PEOPLE WITH TRAUMATIC brain injury (TBI) often exhibit disruptive behaviors that can hinder recovery and impair their ability to participate in therapy. The extent of the problems will depend on the area of the brain affected and the severity of the injury, with a patient’s conduct influenced by factors such as the orientation to time, location or people, memory dysfunction, disinhibition, and difficulties with awareness or insight.

To learn more about disruptive behaviors and the strategies for keeping both the patient and caregivers safe, Focus on Rehabilitation spoke with Neil N. Jasey, Jr., M.D., director of Brain Injury Rehabilitation at Kessler Institute for Rehabilitation, and Maha Younes, Ph.D., a neuropsychologist at Kessler.

Focus on Rehabilitation: Why do these actions occur, and what behaviors are seen?

Neil N. Jasey, Jr., M.D.: People with TBI typically experience a period of post-traumatic amnesia, which can lead to agitation. Memory of the past, including the traumatic event, can be erased, and it is often difficult for those with TBIs to form new memories for a period of time. There is no predictable duration for post-traumatic amnesia. Some people go through this phase quickly, but in others it lingers. Furthermore, people with TBI tend to have diminished impulse control. Motor restlessness is a common form of agitation. People often lack insight and fail to recognize the limitations of their situation. For example, patients may have weight-bearing issues due to multiple injuries and may not realize that they cannot stand. Fall risk is a significant concern. Shouting can occur but is less typical.

Maha Younes, Ph.D.: The normal brain is constantly trying to make sense of a person’s situation. Due to the limited information available to people with brain injury, they manifest a misguided response. For example, if they see someone coming toward them with a needle, they might perceive the person is trying to hurt them and act in a way to defend themselves. They can only respond based on what they know, and in many cases, patients lack the full orientation to their surroundings.

Behaviors can be either overtly disruptive, such as agitation, impulsivity, combativeness and swearing, or more indicative of disengagement, such as not wanting to participate or take medications. Usually disengagement is due to significant disorientation, pain or fatigue. The patients have no idea of what has occurred, where they are or why they are here, and do not see the point of participating in therapy or taking medications.

Focus: Are there triggers that frequently lead to these behaviors?

Jasey: There generally is some external factor, such as a certain stimulus or person, or even the time of day. Triggers differ by patient, thus recognition of them is a key to avoiding the behavioral changes.

Younes: Other factors include overstimulation, fatigue and pain, which are three of the more common circumstances that lead to disruptive actions. Understanding the consequences of these triggers, however, is just as important to maintaining patient safety. Knowing what can be done to increase or decrease the behavioral response may help avoid disruptions. For example, patients in pain may need a certain wheelchair and ice packs to provide comfort during transport.

Focus: What strategies does Kessler have in place to respond to these challenges?

Youenes: Kessler has a Behavior Response Team comprising a therapy manager, a nurse manager and a neuropsychologist. In the event of a disruptive patient, this team is called to triage the situation and decide whether security and/or the physician need to be brought in to keep the individual and staff safe. After hours, the
TAKING PREEMPTIVE STEPS

Although disruptive behaviors can be harmful to patients and staff, those predisposed do not exhibit these actions all the time. There is a period between calm and disruptive known as the “ramp-up” phase, which may last for several minutes before a person becomes disorderly. Recognizing the signs of ramp-up is just as important as understanding the triggers.

When these signs are noticed, the undesirable behavior can often be avoided if the calming influences are also known. Such actions might be as simple as moving the patient to a quiet or dark room, putting ice packs on an area of pain or introducing a therapy dog. Both the ramp-up behavior and the calming influences, however, are case-specific and can be identified only through observation.

A program is modified to include security and the nurse and therapy managers, with a psychologist on call if required. After every Behavior Response Team action, there is a post-event review to identify preventive measures and provide additional follow-up to the physician.

Focus: How does Kessler monitor disruptions?
Younes: Kessler has a Behavior Management Policy that covers both Behavior Rounds and the Behavior Response Team. During Behavior Rounds, strategies are developed to engage the patient in the therapeutic process by including tasks geared toward his or her hobbies or interests until the level of orientation improves and the person is more aware of what he or she is trying to achieve. The rounds, which take place once a week, are designed to elucidate patient behaviors, recognize specific triggers, facilitate discussion of the consequences, and plan the staff actions to modify this conduct.

Jasey: Communication among the staff is important. Aside from Behavior Rounds, there is a Team Conference every week. The nurse and therapists include patient conduct in their reports. In addition to the larger weekly meeting, a smaller team meeting is often held as well.

Focus: How are problematic actions recognized and communicated to the staff?
Jasey: The rehabilitation assistant is usually the first to notice something. Depending on the behavior, the assistant will either call the Behavior Response Team immediately or bring the information to the attention of the Behavior Rounds Team.

Younes: Also, if a physical, occupational or speech therapist has an issue, a neuropsychologist is consulted. After each consultation, a note is generated in the hospital’s computerized medical record that states the issues, triggers and strategies for handling the behavior. Nonclinical personnel, such as housekeeping or nutrition, are made aware of the situation through the department managers, and are instructed to see the charge nurse before entering the patient’s room.

Focus: What therapies are used to treat patients who have these characteristics?
Jasey: We try to treat the individual holistically rather than with medication. If we know that pain or sleep is a trigger, we focus on managing it. We know that some patients are at risk for infection and watch for it as a cause of agitation. If medication is needed for motor restlessness, we might prescribe propranolol, a beta blocker commonly used for stage fright, rather than a sedative. Other therapies might include trazodone (for sleep), donepezil (for dementia) or divalproex sodium (for mania or bipolar disorder). Of course, patients who exhibit extremely disruptive behavior indicative of psychosis need more aggressive medication management.

Younes: Removing the triggers is important, but we also look for calming effects. In one case we found that by introducing a therapy dog, the trigger could be mitigated. The calming effects are not always easy to find because the response varies case by case.

Focus: What safeguards protect the staff when a patient becomes disruptive?
Younes: A committee called Preventing Violence in the Workplace was started. In fact, the Behavior Response Team was one initiative that came out of that group. Any issues of safety concern that are identified by this team are reported to the treatment team and to security.

Focus: How are family members instructed to ensure their safety during patient visits?
Younes: Patients manifesting these actions are categorized into one of three groups: restless, violent/combative or confused. Guidance sheets for the family have been developed for each of these categories, and include a simple list of dos and don’ts. Patients with disruptive conduct are identified during Behavior Rounds and the reception desk is notified. When visitors check in, they are given a card that instructs them to go to the nurse’s station prior to visiting. At the station they are given the appropriate guidance sheet so that they have a clinical team member there to answer any questions.

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After the election: What’s in store for physical medicine and rehabilitation

BY BRUCE M. GANS, M.D.

WITH THE MOST EXPENSIVE presidential election in history over, it is time to consider what the outcome means to physical medicine and rehabilitation. In short, probably little.

A primary reason is the relatively unchanged balance of power on Capitol Hill. Perhaps more important, however, is that advocating for improved quality of life for rehabilitation patients requires a somewhat election-proof tenacity to reframe the discussion.

Furthermore, while health care is local and personal (just like politics), major programs in the Affordable Care Act (ACA) target large-scale models that leave small populations and patients with rarer conditions at risk. The election didn’t change either.

There is an almost magical belief that we can eliminate waste but simultaneously pay for more health insurance while at the same time improving the quality of care provided to individuals and the health of the population. This, the thinking goes, would reduce the deficit and ease the strain on Medicare.

In reality, one person’s “waste” is another’s quality care, so there will always be pressures to deliver services. We will also likely wind up spending more on overall health care since we’re delivering it to more people.

At particular risk are those with disabilities, who make up a smaller proportion of the overall population but whose needs are so complex that it is impossible—and wrong—to meet them based on population-wide statistical assumptions.

Given all that, here are several predictions for the post-election world:

• The ACA will remain largely intact, but attacks will continue and implementation will slow. The easier changes that are required have been implemented. They include provisions that allow children to remain on their parents’ insurance policies until age 26; prevention of lifetime caps; and the institution of medical loss ratios to reduce profit taking by insurance companies.

Now the hard work of actually providing health insurance to an additional 30 million Americans begins. Several states have refused to expand Medicaid and only 23 had announced by December that they would develop the health insurance exchanges that form the centerpiece of the ACA. These exchanges are supposed to go live Jan. 1, 2014—a deadline that may be unattainable given the current climate of roadblock and resistance.

• The Continuing Care Hospital Pilot is in jeopardy. This model creates a new provider type consolidating rehabilitation, skilled nursing and long-term acute care. While proponents believe it can improve clinical efficiency, reduce costs and improve outcomes, persuading the Centers for Medicare & Medicaid Services to implement the law’s provisions remains a challenge.

• Reimbursement cuts will continue. No matter what happens with sequestration, lawmakers will balance the budget, to a large extent, on the backs of entitlement programs like Medicare and Medicaid. Medicare reimbursement will be reduced through a variety of methods, with more efforts to shift populations to “less expensive settings” and constrain the use of expensive procedures.

• Access is at risk. The entry of 30 million newly insured patients coupled with continued reimbursement cuts may significantly reduce access to an already limited physician workforce. Also, if provider reimbursement is greatly decreased, many smaller rehabilitation hospitals or units may face their own financial cliffs.

Legislators may finally be ready to hear what we have to say about the needs of the disabled community as well as the practitioners who care for them. It is essential that we advocate with a clear, articulate and persistent voice.

There is reason to hope that Congress will take a cue from its all-time-low approval rating and the results of the recent election. If so, members of Congress would seek more solutions and compromises to solve our economic problems while still strengthening the health care delivery system.

Thus, legislators may finally be ready to hear what we have to say about the needs of the disabled community as well as the practitioners who care for them. That is why it is essential in the days ahead that we in the rehabilitation field advocate with a clear, articulate and persistent voice.

Encourage your patients to be vocal. Become involved in advocacy yourself. Join local and national organizations to help shape their messages and deliver them. Our patients and our practices are worth fighting for.
Wheelchair sports: The thrill of victory
(continued from page 1)

match them with compatible quality-of-life (QOL) interests such as sports. Today’s limited reimbursement models have resulted in earlier discharges and fewer recreational opportunities, leaving patients and their support networks to pursue interests on their own.

Although many spinal cord injury patients present with ventilator dependency and the need for other specialized care—and resources must be devoted to addressing these higher-level needs—there is still the opportunity for these more complex patients to participate in sports.

Accessibility and Financial Considerations

After individuals have left the rehabilitation setting, availability becomes the largest barrier to involvement: Many options are simply not offered locally. If patients are unable to drive or enlist the help of family or friends, they may have to pursue costly transportation alternatives. Organizations such as the Christopher and Dana Reeve Foundation can assist wheelchair users in identifying appropriate resources in their areas, in addition to awarding QOL grants to nonprofits providing such services to persons with spinal cord injury.

Even when a good match exists between the individual and the sport, financial barriers can prove challenging. Equipment can be expensive, from items such as monoskis to specialized wheelchairs, which can be priced at more than $5,000. Insurance doesn’t cover these expenses, thereby creating out-of-pocket costs that, for many, are prohibitive.

In some cases, individuals may borrow equipment from peers to trial before making a financial commitment.

This is one area of health care in which consumer demand generally drives a traditional purchasing process—seeking information from others and comparing product reviews, for instance. Teammates and colleagues generally can provide more feedback about certain equipment than clinicians or therapists can. This is particularly true in rehabilitation settings, although providers do assist in taking measurements and other specific problem-solving issues.

Offering Solutions

The first step to ensuring that all who desire to participate in sports can do so is to incorporate evaluation and referral into the plan of care. At Kessler Institute for Rehabilitation, after initial stabilization, the individual undergoes formal assessment by the interdisciplinary team, which includes a physiatrist, nurses, a psychologist, and recreation, physical and occupational therapists. The person’s medical status, abilities and interests are reviewed in the context of possible activity, and options are presented accordingly. Patients often inquire about particular sports, and the team can provide advice.

Individuals at all functional levels are eligible for this approach. Even those on ventilators can take part in less physically demanding pursuits such as archery or fishing. As a person’s condition evolves, so too can the alternatives for physical movement or competition.

Through joining online communities and using other communication tools, the interdisciplinary teams at Kessler maintain a catalog of resources to aid people in finding athletic interests that will work for them. This consists of clubs and peer mentors willing to help and Kessler-sponsored “Sports Nights,” which expose individuals to different activities and encourage involvement. Kessler clinicians also refer people to relevant community and nationwide groups, such as the National Spinal Cord Injury Association and the Wheelchair Sports Federation.

Many former Kessler patients have enjoyed great success in their pursuits; a few have even taken part in the table tennis and sled hockey events at the Paralympics.

According to the Wheelchair Sports Federation, “If a sport exists, then it can be adapted.” Here are some possibilities, many of which come in both recreational and competitive forms and several of which are unique to wheelchair users (indicated with *):

- Archery
- Billiards
- Boxing
- Fishing
- Football
- Hunting
- Mountain biking
- Power wheelchair soccer*
- Sled hockey*
- Swimming
- Team handball*
- Track and field
- Basketball
- Bowling
- Fencing
- Flying
- Handcycling*
- Motor sports
- Powerlifting
- Quad rugby*
- Snow skiing
- Table tennis
- Tennis
- Water skiing

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