

Rehab Continuum Report

The essential monthly management advisor for rehabilitation professionals

INSIDE

■ Train staff for PPS changes:
Functional Independence
Measure set to replace
MDS-PAC 51

■ VA shares guidelines on
safe patient handling. 56

■ Transfer guidelines reduce
injuries. 57

■ Pre-op patient training
improves recovery 58

■ Training expert says: Find
out why mistakes were made
before planning corrective
training 60

■ Insert: Activities of Daily
Living form inserted

MAY
2002

VOL. 11, NO. 5
(pages 49-60)

NOW AVAILABLE ON-LINE!
www.ahcpub.com/online.html
Call (800) 688-2421 for details.

Rehab facility provides new type of therapy to cardiac patients

EECP is growing in popularity

Certain cardiac patients have medical problems and pain from angina that prevent them from receiving the full benefits of rehabilitation therapy. Until recently, there was not a whole lot that a rehab facility could do for these people.

That situation has changed for Bacharach Institute for Rehabilitation of Pomona, NJ, which recently began to offer a new service, called Enhanced External Counter Pulsation (EECP), to cardiac patients with angina who lacked good surgery alternatives.

"We have patients who, after 12 weeks of rehab, still have angina, and we thought EECP would be another alternative for them," says **Ronald Franceschini**, MEd, CSCS, clinical coordinator of cardiopulmonary rehab.

These are patients who are no longer suitable candidates for bypass surgery or angioplasty, Franceschini adds.

The EECP machine, marketed by Vasomedical Inc. of Westbury, NY, was first introduced in the United States a decade ago, but it was not well received. Several years later, the Japanese company that developed it reintroduced it in California and obtained a patent on the machine. The EECP machine has approval from the Food and Drug Administration (FDA) for treatment of unstable angina, and it's used at more than 300 U.S. sites, most of which are research universities, medical universities, acute care facilities, and cardiology practices.

Franceschini first learned about the device while attending a conference of the American Association for Cardiovascular and Pulmonary Rehabilitation.

"I came upon the machine being demonstrated, and it looked unusual," Franceschini recalls. "There's a person on the table with inflatable pants, which are inflated and deflated, and after further research I found that the machine had quite a bit of studies backing it up."

Franceschini brought information back to the rehab facility's administrator, who agreed that it looked like an interesting device. However,

there was a problem with its price, which ranged from \$150,000 to \$200,000.

"I decided with the marketing director to solicit funds from a heart and lung foundation from the area," Franceschini says. "I made a presentation to the foundation's board and asked them for a four-year commitment, and they agreed to donate \$40,000 a year for four years to help us pay off the equipment."

Here's how the rehab service works:

- **Sessions:** Patients are seen five days a week for seven weeks, for a total of 35 visits. Bacharach Institute for Rehabilitation began to see the first EECP patients in March, and all were covered for the service by Medicare, Franceschini says.

The sessions, including preparation and post-treatment time, last about 1.5 hours.

"From last year to this year, Medicare increased reimbursement for EECP," he adds.

Machine makes its own natural bypass

- **Machine:** Patients apply inflatable trousers that are similar to the military anti-shock trousers used by emergency medical services for patients who are in severe shock. The trousers have Velcro and are pulled over skin-like tights, which help prevent skin breakdown. The inflatable trousers fit over a patient's calves, thighs, and hips.

The machine then provides 260 mmHg of therapeutic pressure to the patient's lower extremities. The inflation begins with the calves and works its way up, Franceschini explains.

"It pulsates with your heart beat, so there's an ECG telemetry reading, and during diastole the blood is shunted to the coronary arteries," he says.

Like exercise, the machine's activity creates a sheering pressure along the coronary arteries, and it makes its own natural bypass through the creation of tiny arteries, Franceschini says.

"What the machine can do for you and what exercise can do are very similar in terms of trying to improve heart function and the angina threshold," he says. "Of course, the difference is that

these patients can't even walk 100 feet without getting some kind of angina, so they need some treatment that is passive initially."

There was on-site training on using the machine, and if Franceschini encounters any problems he can call a clinician and fax results to the machine's distributor.

- **Therapy:** The machine measures its activity according to the patient's heartbeat, so if a patient has a heartbeat of 60 beats per minute, then there will be a continuous inflation/deflation rhythm according to that beat.

"We do pre- and post-vital signs, and during therapy I am looking at telemetry, making sure they are not in tachycardia or dysrhythmia," Franceschini says. "I measure the pulse wave every 10 or 15 minutes."

The measurements show whether the patient is receiving the therapeutic pulsation and gives the therapist an opportunity to adjust the pulse pressure as needed.

Depending on their comfort level, patients may take a nap or simply relax during the session. Franceschini dims the lights and puts on relaxing music to help patients feel more comfortable.

- **Benefits:** After weeks of treatment, patients begin to feel better and their angina decreases during their daily activity, Franceschini says.

"The less angina they feel, the more activity they do, and that lowers their blood pressure," Franceschini explains. "Ultimately, it will make an excellent transition to therapy for those patients who couldn't come to us initially in rehab."

Another benefit is that the patient's body will begin to produce nitric oxide, a basal dilator, which also has a positive effect on reducing angina.

Current EECP research is investigating the use of the machine in heart failure patients to see whether these patients can improve their rating on the New York Heart Failure Classification scale.

- **Risks:** The most prevalent adverse effect is skin breakdown, which occurs very rarely.

COMING IN FUTURE MONTHS

- New treatment and technology enable incomplete quadriplegic to walk

- Rehab facility's brain injury program teaches all staff about patients' cognitive and behavioral problems

- Quality improvement still a major rehab focus

- Money for research: Here's where to look for it

Because patients undergo therapy while lying on a table, they are stable, and therapists can easily discontinue treatment should a problem arise, Franceschini says.

"If things go wrong, you push a button, stop the machine, and treat the patient," he explains.

Currently, the treatment is recommended for patients who are suffering from severe peripheral vascular disease, aortic valve insufficiency, stenosis, or who have heart failure, Franceschini adds.

One of Franceschini's patients reports feeling pressure in her thighs and a soreness afterward, but another patient reports no discomfort after the therapy session.

Treatment might increase exercise tolerance

- **Patients:** Franceschini treats a patient who has vessel disease, with blockage ranging from 70% to 90%, and who is a noninsulin diabetic with renal insufficiency.

Because of his renal problems, the patient is not eligible for heart surgery, and although he has already gone through a cardiac rehab program, he still has angina when he's out walking his dog.

Traditional therapy has included teaching him a different strategy for walking his dog: Instead of following the dog uphill on one route, he can take a more level route. However, Franceschini says he hopes the EECP treatment will alleviate the man's angina and enable him to increase his exercise tolerance.

A five-year study that tracked major adverse cardiovascular events (MACE) among 33 patients with coronary artery disease who were treated with EECP found that 64% or 21 of the 33 patients remained alive and without MACE or the need for revascularization five years post-EECP treatment,

suggesting that EECP is an effective long-term therapy.¹

Other published research found that EECP treatment improves exercise tolerance, reduces angina, and extends time to exercise-induced ischemia in patients with symptomatic coronary artery disease.^{2,3}

- **Referring clinicians:** Cardiologists are the main referring clinicians for the treatment.

To introduce EECP to local cardiologists, Franceschini met with the doctors to discuss the procedure, and the rehab institute has plans to hold a dinner meeting presentation on EECP.

There also has been a symposium held for area case managers, and the institute has advertised the service on local television shows with health update spots.

"So far, we've gotten a lot of phone calls, but it's new so people are a little timid," Franceschini says. "Within four weeks, I have four patients, which will keep me busy."

References

1. Lawson WE, Hui JC, Cohn PF. Long-term prognosis of patients with angina treated with enhanced external counterpulsation: Five-year follow-up study. *Clin Cardiol* 2000; 23:254-258.
2. Urano H, Ikeda H, Ueno T, et al. Enhanced external counterpulsation improves exercise tolerance, reduces exercise-induced myocardial ischemia and improves left ventricular diastolic filling in patients with coronary artery disease. *J Am Coll Cardiol* 2001; 37:93-99.
3. Arora RR, Chou TM, Jain D, et al. The multicenter study of enhanced external counterpulsation (MUST-EECP): effect of EECP on exercise-induced myocardial ischemia and anginal episodes. *J Am Coll Cardiol* 1999; 33:1833-1840. ■

PPS training essential to maximize reimbursement

Rehab director offers these guidelines

Through a comprehensive educational program, visual cues, and training updates, a rehabilitation facility can educate its staff on how to best document patient status in order to receive the appropriate reimbursement under the inpatient rehabilitation prospective payment system (PPS).

Unity Health System in Rochester, NY, has educated and trained rehab staff with a program

Need More Information?

- ☎ **Ronald Franceschini**, MEd, CSCS, Clinical Coordinator of Cardiopulmonary Rehab, Bacharach Institute for Rehabilitation, 61 W. Jim Leeds Road, Pomona, NJ 08240. Telephone: (609) 748-2091.
- ☎ **Vasomedical Inc.**, 180 Linden Ave., Westbury, NY 11590. Telephone: (800) 455-3327 or (516) 997-4600. Fax: (516) 997-2299. E-mail: CustomerService@vasomedical.com.

that includes guidelines derived from the Centers for Medicare and Medicaid Services (CMS), journals, and other rehabilitation facilities, says **Sue Vogl**, MPA, physical medicine and rehab administrative director for Unity Health System, which has a 33-bed rehab unit.

“We knew what we needed to do back in 1999, but we were waiting for the final rule to be published,” Vogl says.

Once CMS published the final rule and made changes to eliminate its first proposal of using the Minimum Data Set - Post Acute Care and switched to the industry’s preferred system, the Functional Independence Measure (FIM), the rehab facility began to analyze how documentation would change.

Documentation teams worked side by side

Two teams were formed. The clinical team had nurses from all three shifts and representatives from speech therapy, occupational therapy, and physical therapy. The reimbursement team had staff from medical records, finance, information systems, and reimbursement, Vogl says.

“Each team was working side by side but focusing on their particular issues,” she adds.

“We were a former FIM user, so therapists were used to scoring on the FIM, but we revised all assessment tools and FIM scoring,” Vogl explains. “We used training materials developed by CMS, and we had one other staff person and myself go to three training sessions across the country.”

Vogl came back with PowerPoint presentations, videos, flip charts, and other training materials. She also made use of the CMS web site and its question-and-answer information. The training modules were established within four to six months.

“We set up two-hour training blocks, where a nurse manager and I would do the training, including midnight training for the night staff,” Vogl says. “We did five or six sessions where everyone would have to sign in and take a post-test.”

From the post-test, managers determined what the problem areas were, and they focused on those in follow-up training.

Assessment charts are audited on a weekly basis to make sure they are done completely and accurately, and the rehab facility has an assessment coordinator who has worked in the rehab field for 10 years, Vogl says.

Most of our problem areas were found within the first six weeks of starting the new assessment

program, which the facility initiated prior to PPS implementation, Vogl adds.

“Since then, we have an ongoing monitoring program, so if there are isolated problems, we can catch them before they become trends,” Vogl says. “We’re very happy with it.”

Here’s how the educational modules were established:

- **Mobility scoring:** Under the PPS tool, the patient’s transfer status has to be described according to different scenarios.

Therapists and nurses were taught, through various examples, how the Medicare instrument differentiates between definitions for transferring from bed to wheelchair vs. from bed to chair.

For instance, one question they were asked to consider was: “If a patient uses a wheelchair, can he or she receive a score of seven [the most independent score]?”

“Normally if a patient uses an assistive device, you can’t score a seven,” Vogl says. “But in this case there are different possible scenarios, so the answer is ‘yes.’”

However, the score would be a six if the patient is transferring from a wheelchair and is using the wheelchair in such a way that it facilitates the transfer, such as if the patient uses the wheelchair armrest, Vogl says.

“Then it’s considered modified independence, and it’s a score of six,” she adds. “We really went through the intricacies.”

Staff must set expectations for locomotion

This module also covered locomotion, including walking and wheelchair use. Under PPS, this documentation has a new and more difficult consideration. Physical therapists or other staff who assess patients at admission will need to decide what their expectations are for each patient with regard to locomotion, Vogl says.

“If a patient is in a wheelchair at admission, and the expectation is that the patient will be ambulating at discharge, then you have to project what they would be scoring on ambulation at admission,” she says.

In other words, scoring is very different according to what the therapist’s expectations are for a particular patient. If wheelchair patient A is expected to be walking at discharge, then the admission score for patient A would reflect low independence and would perhaps be a score of one. If wheelchair patient B is expected to be in the wheelchair at discharge, then the score for

patient B may reflect a higher level independence with a score of five or six, even though patient B and patient A demonstrate the same amount of ability at admission.

In both cases, the therapy goal would be to help the patient improve in locomotion scoring, but the improvements would be different. Patient A might improve to the point of using a walker, whereas patient B might improve to the point of being able to use the wheelchair without assistance.

“Therapists always have goals for patients, but they may not be comfortable on admission to say whether this person is going home with a walker or independently or in a wheelchair,” Vogl says. “So the question for us was what would happen if a therapist thought a patient would walk without a wheelchair, and then the patient doesn’t.”

The answer was that the therapist should score the admission assessment both ways, with one score for if the patient stayed in the wheelchair and the other for if the patient was walking, Vogl says. “Then, at discharge, you take the correct score.”

The documentation would be sent to Medicare after the discharge.

Nursing has a truer picture of deficits

• **Cognitive scoring:** This is another area with a major change. Previously, the cognitive scoring at Unity Health System was done by the staff neuropsychologist, but under the new assessment instructions it will have to be assessed by the nursing staff, Vogl says.

“With the new assessment, the goal is to assess the patient at the lowest level of performance over the first three days,” Vogl says. “Typically, what you see in therapy is that the patient will do well for the therapist or psychologist, but not for the nurses or family.”

This is why the rehab facility now has nurses provide cognitive scoring.

“Nursing has a truer picture of those deficits in a more normal daily functioning rather than in a half-hour one-on-one session with the neuropsychologist,” Vogl explains. “The neuropsychologist will still score and track the patient’s progress in that specific area from admission through discharge.”

So the rehab facility had to teach nurses how to do cognitive scoring, and this was an area that they struggled with, Vogl says.

“We had to break it down and show that what PPS was looking for was how these patients

function in a day-to-day environment, which is different from a neuropsych setting,” she says.

Nurses need to consider questions like these:

— Can the patient ask caregivers for his or her medications?

— Can the patient sequence putting on articles of clothing?

— If the patient can’t reach something, how can he or she get around it?

During the nursing cognitive assessment module, the staff neuropsychologist gave some suggestions and recommendations on how to assess severity of deficits and what is the best mechanism for working through those deficits.

Cognitive scores updated throughout stay

Another example of where a cognitive deficit may appear is in the task of problem-solving. Nurses were asked to answer this question: “What is the problem-solving score for someone who solves routine problems 75% of the time, but does not initiate or participate in any complex problem-solving?”

The answer is that the score is a level four because the patient only requires minimal direction for occasional assistance for routine problems, but does not solve complex problems, Vogl says.

Routine problems might include the patient asking for help when dropping a spoon, the patient putting on more clothing when he or she is cold, or the patient asking for assistance prior to transfer or when he or she needs help in buttoning a shirt. Complex problems are anything that requires a three-step direction, such as planning for a day’s activities.

To assist nurses in making these decisions, the rehab facility has decision trees that walk them through the process of assessing cognitive function.

Nurses on all three shifts now have to assess cognitive function for the first three days, and the scores are updated throughout the patient’s length of stay on a weekly basis and again at discharge, Vogl says.

“This took nurses a lot of time in the beginning, and they were concerned about being able to do this accurately, as well as taking care of patients,” Vogl says. “But with more training, and with a lot of visual aids and the decision tree at nurses’ stations, they could do it.”

• **Activities of daily living:** Previously, the rehab facility’s occupational therapists would complete the assessment and score the patient’s

activities of daily living (ADL).

Now the nurses on all three shifts must score the ADLs for the first three days and then each week and at discharge.

“These include eating, grooming, bathing, and then two dressing categories for the upper body and lower body,” Vogl says.

Each category includes specific instructions, such as whether the patient can apply make-up or clean his or her own dentures. **(See “Activities of daily living” assessment form, inserted in this issue.)**

Nurses need to pay close attention to details and nuances in the patient’s ADLs in order to score these correctly. For example, scoring a patient who eats a pureed diet requires the nurse to know the answers to these questions:

— Does the patient eat a pureed diet because of swallowing problems?

— Can the patient eat the pureed diet independently?

“If the patient is eating a pureed diet independently, then it’s considered a score of six,” Vogl says. “If the patient needs utensils put out and maybe pouring sauce or putting dressing on food, then that would be a level five, but if the patient needs total assistance for feeding, then that’s a level one.”

Likewise, scoring for dressing requires some knowledge about the patient’s pre-injury habits.

What does the patient typically wear?

For instance, if the patient typically wore a shirt or blouse that required buttoning and now the patient cannot button his or her own clothing, then that may be scored a four, Vogl says.

But if another patient who can’t button clothing is able to put on and wear a sweatshirt, and if this patient had always worn sweatshirts before the injury, then he or she may be given a score of seven, because the expected level of independence is there, Vogl explains.

This means nurses need to check the patient’s history assessment to see if the type of clothing the patient typically wears is indicated on it, or ask the patient and family what the patient is accustomed to wearing.

“Another form we developed is added to the psychosocial assessment, so in addition to basic demographics we’ve added a section about pre-hospital functioning,” Vogl says.

Typically, the case manager will collect the historical data from the patient and family members.

• **Bowel and bladder management:** Nurses score this, but the way they score it has changed.

“Now they’re asking you to score the level of assistance they need, as well as to score the number of accidents the patient might have had within the last seven years,” Vogl says.

“That’s difficult to get, especially when you’re trying to score that upon admission and you don’t have the luxury of a completed previous chart to know what the patient’s functioning level is,” Vogl adds.

The patient’s acute care chart may not have documentation about a patient’s bowel and bladder accidents.

The rehab facility will request that the referring institution send the last week’s progress notes, but those do not always help, Vogl says. Another option is to ask the patient and family about it.

It’s easier for rehab nurses to assess continued bowel and bladder management, because this much has not changed from previous practice. They simply keep nursing flow sheets that track frequency of bladder accidents and frequency of bowel accidents. **(See sample function modifier form, p. 55.)**

Various factors can affect comprehension

• **Communications:** The staff who do this assessment are the speech language pathologist and nurses. There are two categories that need to be assessed under communications — comprehension and expression. “Do they understand when you speak to them, and are they able to express back what they’re thinking and feeling?” Vogl says.

Under comprehension, the scoring is based on assessing the patient’s ability to understand, but it can be affected by various factors. For example, a question may be: “How do I rate a patient who is unable to understand what I am saying because of a hearing deficit?”

The answer is that if the nurse or therapist has to significantly increase the volume of the voice or repeat a message as a form of prompting, and if they have to do this most of the time with the patient, then the score could be as low as two. If the prompting is only necessary occasionally, then the score is a five, Vogl says. Again, nurses are encouraged to use a decision tree to help them with the scoring.

(Continued on page 56)

Unity Health System
Physical Medicine and Rehab
Function Modifiers

Complete the following specific functional items prior to scoring the FIM Instrument:

- | | Admission |
|--|------------------|
| 29. Bladder Level of Assistance | ___ |
| 30. Bladder Frequency of Accidents | ___ |
| 7 - No Accidents | |
| 6 - No accidents; uses device such as a catheter | |
| 5 - One accident in the past 7 days | |
| 4 - Two accidents in the past 7 days | |
| 3 - Three accidents in the past 7 days | |
| 2 - Four accidents in the past 7 days | |
| 1 - Five or more accidents in the past 7 days | |
| 31. Bowel Level of Assistance | ___ |
| 32. Bowel Frequency of Accidents | ___ |
| 7 - No Accidents | |
| 6 - No accidents; uses device such as an ostomy | |
| 5 - One accident in the past 7 days | |
| 4 - Two accidents in the past 7 days | |
| 3 - Three accidents in the past 7 days | |
| 2 - Four accidents in the past 7 days | |
| 1 - Five or more accidents in the past 7 days | |

Enter in item 39H (Bowel) the lower (more dependent) score of items 31 and 32 above.

- | | |
|---------------------|-----|
| 33. Tub Transfer | ___ |
| 34. Shower Transfer | ___ |

Score items 33 and 34 using FIM levels 1-7; use 0 if activity does not occur. See training manual for scoring of items 39K (Tub/Shower Transfer).

- | | |
|---------------------------------------|-----|
| 35. Distance walked | ___ |
| 36. Distance traveled in a wheelchair | ___ |

Code Items 35 and 36 using: 3 - 150 feet; 2 - 50 to 149 feet; 1 - less than 50 feet; 0 - activity does not occur.

- | | |
|----------------|-----|
| 37. Walk | ___ |
| 38. Wheelchair | ___ |

Score Items 37 and 38 using FIM levels 1 - 7; 0 if activity does not occur). See training manual for scoring of Item 39L (Walk/Wheelchair).

Therapy

FIM Instrument:

Day

Self Care

1 2 3 Goal

- | | | | | |
|---------------------|-----|-----|-----|-----|
| A. Eating | ___ | ___ | ___ | ___ |
| B. Grooming | ___ | ___ | ___ | ___ |
| C. Bathing | ___ | ___ | ___ | ___ |
| D. Dressing - Upper | ___ | ___ | ___ | ___ |
| E. Dressing - Lower | ___ | ___ | ___ | ___ |
| F. Toileting | ___ | ___ | ___ | ___ |

Sphincter Control

- | | | | | |
|------------|-----|-----|-----|-----|
| G. Bladder | ___ | ___ | ___ | ___ |
| H. Bowel | ___ | ___ | ___ | ___ |

Transfers

- | | | | | |
|---------------------------|-----|-----|-----|-----|
| I. Bed, Chair, Wheelchair | ___ | ___ | ___ | ___ |
| J. Toilet | ___ | ___ | ___ | ___ |
| K. Tub, Shower | ___ | ___ | ___ | ___ |

Locomotion

- | | | | | |
|--------------------|-----|-----|-----|-----|
| L. Walk/Wheelchair | ___ | ___ | ___ | ___ |
| M. Stairs | ___ | ___ | ___ | ___ |

Communication

- | | | | | |
|------------------|-----|-----|-----|-----|
| N. Comprehension | ___ | ___ | ___ | ___ |
| O. Expression | ___ | ___ | ___ | ___ |

Social Cognition

- | | | | | |
|-----------------------|-----|-----|-----|-----|
| P. Social Interaction | ___ | ___ | ___ | ___ |
| Q. Problem Solving | ___ | ___ | ___ | ___ |
| R. Memory | ___ | ___ | ___ | ___ |

Signature _____
 Signature _____
 Signature _____
 Signature _____
 Signature _____

Source: Reprinted with permission from Unity Health System, Rochester, NY.

Need More Information?

☎ **Sue Vogl**, MPA, Physical Medicine and Rehab
Administrative Director, Unity Health System, 89
Genesee St., Rochester, NY 14611. Telephone:
(716) 368-3360. Fax: (716) 368-3838. E-mail:
svogl@unityhealth.org.

Another example involves aphasia, which is a common comprehension issue with stroke patients. The question to consider is: "When a patient with aphasia can understand what people mean by looking at gestures, how is this rated?"

The answer would be that if the patient is only understanding commonly used voice expressions such as "hi" and "good-bye," and if he or she understand more by the gesture than the words, then the score is two.

But if the patient appears to have only slight aphasia and understands most of what is being said but misses some words, then the score is a five or six.

With regard to expression, the question to consider might be: "How do you score patients who can only express themselves by simple words or by using a communication board, but they can point to words and write things down?"

The answer is that if the patient can only express by pointing to words, the score is a two because that requires maximal prompting. But if the patient can write full sentences and only uses a pen and paper because he or she is not able to verbally express it, then that's a six because the patient can express all needs and desires, Vogl says. ■

VA steps in to fill void with ergonomics strategy

Guide matches ergo need with solutions

Even as U.S. senators pressured the U.S. Occupational Safety and Health Administration (OSHA) to act on ergonomics, two new models emerged for implementing ergonomics programs. They aim to fill a void left by the demise of ergonomics regulation and provide a possible basis for voluntary health care guidelines.

As of early spring, OSHA was poised to announce its new approach to ergonomics. Sen. **Edward M. Kennedy** (D-MA), chairman of the Senate Labor Committee, and two other leading Senate Democrats, **Tom Harkin** of Iowa and **Paul Wellstone** of Minnesota, asked the Department of Labor for all correspondence related to OSHA's ergonomics efforts. OSHA was expected to release its ergonomics plan before an oversight hearing on ergonomics begins on April 18. Many observers expect the agency to rely on voluntary guidelines and education rather than creating a new standard to replace the one Congress rescinded in late 2000.

It's not yet clear whether OSHA will create industry-specific guidelines. But the health care industry already can benefit from two new guides that provide a tailored approach to reducing patient-handling injuries. The Veterans Health Administration published its "Safe Patient Handling and Movement" guide, a document that provides detailed information on how to match ergonomic equipment to patient needs, how to analyze risks, and how to monitor the success of a program.

Guides address serious problem

"I don't think any of us know what OSHA's going to do, but we do know that we need to do something about the serious problem of musculoskeletal disorders among health care workers," says **Guy Fragala**, PhD, PE, CSP, a leading ergonomics expert and director of environmental health and safety at the University of Massachusetts Medical Center in Worcester. "These guides will help transfer a lot of the knowledge as to how to implement an effective ergonomics program."

The VA's step-by-step approach guides hospitals as they assess ergonomic needs and match patient handling criteria to lifting aids. "There have been ergonomic analyses done in patient handling and movement, but there has never been a guideline such as this," says **Mary Matz**, MSPH, project manager of the Safe Patient Handling and Movement Research Project at the VA Patient Safety Center of Inquiry in Tampa, FL.

The guide helps hospitals focus their resources on the most injury-prone tasks. But Matz also notes that getting input from employees is an essential component. "We asked nursing staff and nurse managers, 'What do you see as your

Transfer guidelines reduce injuries, workers' comp

Lost days cut by 90% in one year

When staff at Southern Ohio Medical Center Home Health Services reported a total of 777 days lost due to work-related injuries in one year, managers knew something had to change. By tapping into the expertise of an occupational therapist and developing a well-defined policy that limits employees' risk of injury when handling patients, the number of lost workdays due to injury dropped to just 80 the following year.

"We are self-insured for workers' compensation injuries, so finding a way to decrease injuries was a real financial incentive," says **Karen L. Marshall**, MS, RN, administrator of the home health agency in Portsmouth, OH. "We asked for help from a staff occupational therapist with a focus on work hardening and return-to-work patients," she says. Along with continuing the agency's inservices on injury prevention, proper transfer of patients, and proper lifting techniques, the occupational

therapist developed a set of guidelines to determine which patients require extra assistance, she explains.

"We titled the policy 'Client Safety Classification,' since weight classification is a sensitive term," says Marshall. There are four classifications that are defined by patient description and type of assistance needed for transfer. The classifications are:

- The Class 1 client is independent with all movement and transfers and does not require any assistance to move from one posture to another.

- The Class 2 client weighs less than 300 pounds and requires minimal assistance for transfer from posture to another. Once in a standing position, the Class 2 patient is able to ambulate independently.

- The Class 3 client weighs less than 300 pounds, needs moderate assistance to move from one posture to another, and requires a walking device or assistance to ambulate.

- The Class 4 client weighs more than 300 pounds and requires moderate assistance, or weighs more than 50 pounds and requires maximum assistance. This patient requires a minimum of two people for assistance. ■

biggest problem?' We took that into account in determining ergonomic controls appropriate for each patient care unit," she says.

Under the now-defunct OSHA standard, hospitals would have been required to respond to musculoskeletal injuries as they occurred. But the VA's Patient Safety Center of Inquiry came up with a proactive approach. It based its analysis of the risk of injury on extensive research conducted by ergonomic experts, as well as surveys of their own staff and a review of musculoskeletal injuries.

Hospitals should identify their highest-risk units and give them priority for resources, equipment, and training, says **Audrey Nelson**, PhD, RN, FAAN, center director.

"It's very important to identify high-risk units. This is a mistake many people make. They have a small budget and they try to spread it too thin," she says. "By focusing on your highest-risk units, it allows you to prioritize your time and resources."

Rehab and spinal injury units are examples of high-risk areas. But other factors may contribute

to injury risk. For example, patients with unpredictable or combative behavior or with cognitive impairments can unwittingly contribute to staff injuries. Frequent twisting or turning or repositioning patients without proper aids can lead to injuries.

"Not all high-risk tasks are lifts or transfers," says Nelson. "People get that in their mind in the beginning, and they neglect other tasks that may have [contributed to long-term stress]."

Help staff identify injury-prone tasks

Purchasing the right kind of equipment is a first step. But how do you make sure employees use the equipment when it's needed? The VA guide provides patient assessment criteria and algorithms to help health care workers identify injury-prone tasks and patients' needs for transfer assistance.

"You want to match the patients' needs to the solution you're using," says Fragala. "Different units may have different solutions for different tasks."

Hospitals can begin by classifying patients according to their level of dependency and ability to bear weight. A patient who needs partial assistance is defined as someone who needs no more than 50% physical assistance from a nurse while performing the transfer. A dependent patient needs more than 50% assistance or is unpredictable in the amount of assistance needed.

"You have two basic classifications of lift: The full-body sling lift and the stand-assist lift," explains Fragala, one of the authors of the VA guide. "The criteria for matching those lifts to a patient are dependency level and weight-bearing capability. Someone who is totally dependent with no weight-bearing capability would require a full-sling lift. If someone has some weight-bearing capability, then the stand-assist lift can be used."

There are many possible factors that could prevent someone from being able to use a lift. "Are they likely to have problems with their skin? Can they not bend certain joints? In that case, you may need to manually transfer them," says Fragala. "To aid such transfers, you would look at these powered lateral assist devices or friction-reducing lateral assist devices."

The patient-handling guide offers algorithms to help health care workers make choices about the best ergonomics equipment.

Monitor impact of ergo program

Once the program has been implemented, its effectiveness should be monitored. The VA guide offers formulas for determining the cost impact of patient-handling injuries. "It's important to set realistic goals for your patient care ergonomics program," says Nelson.

Borrowing an idea from the Department of Defense, the VA began conducting "After Action Reviews," enabling staff to gather in teams to discuss the root cause of injuries and even of near-misses.

The reviews are designed specifically for front-line staff, notes Matz. "If there are recommendations that need to be made, then the supervisor needs to be made aware of them. But they are not involved in the initial brainstorming and recommendation-making process," Matz says.

"It's empowering staff. It's giving them responsibility for their own safety," she says.

(Editor's note: The VHA's Safe Patient Handling and Movement Guide is available on-line at www.patientsafetycenter.com/products.htm.) ■

Shortened LOS proves beneficial to teaching

Patients learn how to improve recovery

As lengths of stay (LOS) for total hip and total knee surgery got shorter and shorter at Sacred Heart Medical Center in Spokane, WA, there was no longer enough time to provide all the necessary education in the inpatient setting. As a curriculum for outpatient teaching was developed, however, it became evident that some information delivered in advance could make for a better recovery.

To have any results from pre-op strengthening exercises, patients must learn and perform them several weeks in advance, explains **Kristine Becker**, RN, MHA, ONC, director of orthopedics at Sacred Heart. Also, it's better for patients to learn how to adapt their home so they have gotten rid of throw rugs and installed handrails where necessary and can be discharged to a safe environment.

During a two-year study, Becker discovered that total hip surgery patients who attended the class were discharged a half-day sooner than those who did not. Also, 70% of those patients went home rather than to an interim facility, while only 54% of patients who did not attend the total hip class were able to go home after their discharge. Total knee surgery patients attending the class had a 0.4 day shorter discharge than those who did not.

Staff on the units want to be assigned to patients who attend the class because they participate more fully in their recovery process, says Becker. In class, they are given a rundown of what happens on the day of surgery, from where they park when they arrive at the hospital to the sights and sounds they might expect when they awake following surgery. They are also told about the role they have in their own care, such as communicating to the care team about pain so it can be managed effectively.

Physical therapy teaches patients pre-op strengthening exercises and informs them of the precautions they need to take during their recovery process. All the information taught in the class is given to patients in a three-ring binder, which they are asked to bring with them to the hospital. "We distributed these booklets throughout the continuum so everyone is talking from the same

booklet," says Becker.

For patients who have been to a class, much of the inpatient teaching is review. Also, they are in a better position to ask good questions because they have been thinking about the information they have been given, says Becker. Yet teaching during the hospital stay is tailored to meet the needs of every patient. For example, if patients have a lot of stairs in their home, the staff will work with them on climbing stairs.

There are some hospitals that cancel surgery if patients don't attend the pre-op class, but Sacred Heart Medical Center is not one of them, says Becker. Instead, the orthopedic department has worked hard at trying to get patients to the class in a timely manner before surgery. At first, the scheduler at the surgeon's office was asked to do it, but time constraints caused the patients to fall through the cracks.

The orthopedic department took over the process. When a patient is scheduled for surgery, his or her name, address, and phone number are entered in the internal data system. This contact information is used to send the patient a letter four weeks prior to the surgery letting the patient know a place in the class was reserved for him or her.

"We let them know their surgeon recommends they attend the class and that other patients have found it very valuable. We ask them to call and confirm so we can put them on the valet parking list," says Becker.

How successful this method will be has yet to be determined because it was first implemented only recently. The prior method of telephoning patients was not successful because they often could not be reached, or when they returned the call the appropriate person in the orthopedic department was not available. Patients who miss the reserved class are given a call to see if they can be scheduled for a class at another date.

The total hip surgery class lasts about 1½ hours on Mondays, while the total knee surgery class held on Tuesdays lasts about an hour. "It is free to the patient and is time-efficient. We have arranged free valet parking for convenience," says Becker. The class helps decrease the anxiety patients often have prior to surgery, she says.

Another challenge has been reaching patients who live 40 to 100 miles away and don't want to drive to Spokane for the class. Sacred Heart Medical Center produced a total knee surgery video to support patients in outlying areas. While it follows the content of the notebook, it is best for people to be in the class interacting with other

Need More Information?

☎ **Kristine Becker, RN, MHA, ONC**, Director of Orthopedics, Sacred Heart Medical Center, P.O. Box 2555, Spokane, WA 99220. Telephone: (509) 474-7126. E-mail: beckerk@shmc.org.

patients who might have questions they had not thought of yet.

For the future, Becker hopes to be able to use interactive technology to connect patients in remote areas with the teachers and students in the classroom at Sacred Heart so they can participate in the classes. ■

Rehab Continuum Report™ (ISSN# 1094-558X) is published monthly by American Health Consultants®, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **Rehab Continuum Report™**, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291, (customerservice@ahcpub.com). **Hours of operation:** 8:30 a.m. -6 p.m. Monday-Thursday; 8:30 a.m.-4:30 p.m. Friday.

Subscription rates: U.S.A., one year (12 issues), \$545. Outside U.S., add \$30 per year, total prepaid in U.S. funds. Two to nine additional copies, \$436 per year; 10 to 20 additional copies, \$327 per year; for more than 20, call (800) 688-2421. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are \$91 each. (GST registration number R128870672.)

Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact American Health Consultants®, Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421. World Wide Web: <http://www.ahcpub.com>.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: **Melinda Young**, (828) 859-2066, (youngtryon@mindspring.com).
Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@ahcpub.com).
Editorial Group Head: **Lee Landenberger**, (404) 262-5483, (lee.landenberger@ahcpub.com).
Managing Editor: **Alison Allen**, (404) 262-5431, (alison.allen@ahcpub.com).
Production Editor: **Brent Winter**.

Copyright © 2002 by American Health Consultants®. **Rehab Continuum Report™** and **Rehabilitation Outcomes Review™** are trademarks of American Health Consultants®. The trademarks **Rehab Continuum Report™** and **Rehabilitation Outcomes Review™** are used herein under license. All rights reserved.



Editorial Questions

Questions or comments?
Call **Alison Allen**, (404) 262-5431.

Assess carefully before proposing training solutions

Direct education toward root causes, not symptoms

By **Patrice Spath, RHIT**
Brown-Spath Associates
Forest Grove, OR

Monitoring of incident reports suggests that caregivers are not performing up to patient safety expectations. People seem to make many of the same types of mistakes over and over again. Cautionary memos and discussions in staff meetings haven't really changed the situation. What should your organization do to reduce patient incidents? Train your employees better? Not necessarily. Be careful to assess the cause of the problem before spending time and money on training programs. When education solutions are directed toward treating the symptoms and not the underlying root causes, nothing will be resolved.

Too often, health care organizations prescribe training solutions for problems that, when properly diagnosed, turn out not to be training-related problems. As a result, people are inundated with training and monies are expended, yet significant problems remain unresolved. It's no wonder that employees begin to question the credibility of performance improvement initiatives that often rely primarily on training solutions. Many times, a quality or patient-safety concern is a symptom of an organizational design or management problem and not the result of skill deficiencies in the workforce. What may be missing is a systematic process for managing the performance of all employees. Focusing on a few individuals' apparent skill deficiency will not solve the performance problem if the problem is the failure of fundamental management and supervision systems.

There are various reasons why people don't follow procedures properly or fail to meet performance expectations. When designing solutions to noncompliance problems, start by investigating the cause. Through interviews and surveys, discover the causal factors that affect people's decision not to follow generally accepted patient management practices. The knowledge gained through this analysis will lead to the right solutions. Make efforts to determine why people don't do what is expected of them and the possible root cause of those actions.

EDITORIAL ADVISORY BOARD

Nancy J. Beckley, MS, MBA
President
Bloomingdale Consulting Group
Valrico, FL

Bonnie Breit, MHSA, OTR
President
BRB Consulting Media, PA

Peggy S. Neale, MA, MBA
National Director,
Medical Rehabilitation
CARF, The Rehabilitation
Accreditation Commission
Tucson, AZ

Tammy L. Ober
Chief Executive Officer
HealthSouth Reading
Rehabilitation Hospital
Reading, PA

Bill Munley, MHSA, CRA
Administrator of
Rehabilitation and the
Vitality Center
St. Francis Hospital,
Greenville, SC

Martin A. Schaeffer, MD
Medical Director
Department of Physical
Medicine
and Rehabilitation
DuBois Regional Medical
Center
DuBois, PA

Susanne Sonik
Director
Section for Rehabilitation
Hospitals and Programs
and Long-term Programs
American Hospital
Association
Chicago

Gary Ulicny, PhD
Chief Executive Officer
Shepherd Center
Atlanta

Carolyn Zollar, JD
Vice President for
Government Relations
American Medical
Rehabilitation Providers
Association
Washington, DC

With budgetary allowances for staff training and education shrinking, the need to spend training dollars wisely is more important than ever before. Accreditation standards and other external requirements consume lots of training resources, leaving very little for specially focused education. When determining the best way to solve noncompliance issues, don't assume training is always the solution. Digging deeper into the causes of noncompliance may unearth systematic problems with the organization's management systems that require more than a quick-fix training session. Your training resources should be preserved for those situations in which knowledge or skills deficits are at the core of the problem.

*[Editor's note: Patrice Spath and a panel of health care experts have written a new book titled **Guide to Effective Staff Development in Health Care Organizations: A Systems Approach to Successful Training** (Jossey-Bass/AHA Press, 2002). To order the book, visit the Jossey-Bass web site (www.josseybass.com) or call (800) 956-7739.] ■*