

# Where is bariatric rehab on the safety scale?

BY HARRY K. PERKINS

Staff injury-prevention programs for bariatric patients are hard to find; providers learn as they go.

**L**ate last year, the Occupational Health and Safety Administration won approval from Congress to move ahead with a proposed set of workplace safety standards that, if implemented, will directly affect rehabilitation providers.

Congress allowed previous restrictions to lapse on the agency's ability to establish rules regarding a specific class of workplace accidents that result in back injuries, fractures and long-term muscle damage. OSHA has labeled these injuries "work-related musculoskeletal disorders."

The proposed standards are actually a set of ergonomic guidelines that address concerns about employees, such as rehab workers, who repeatedly expose themselves to injury as a result of lifting, lowering, pushing, pulling or carrying heavy objects. Although the standards are still in draft form, they cover a range of preventive measures, including the adoption and use of special equipment and employee safety training.

The news will greatly benefit the therapy staff at Madonna Rehabilitation Hospital in Lincoln, Neb. In 1998, Madonna launched a program aimed at treating patients with serious medical problems stemming from their extreme obesity.

In addressing a need that was getting little attention within the rehab community, the hospital has become one of only a handful in the country with any formal expertise in inpatient bariatric medicine.

In the process, the clinical staff has had to write its own prescription for staff safety.

## Some providers shun care for obese patients

The lessons being learned at Madonna could serve other hospitals eyeing the future of bariatric rehab. Unfortunately, it is a field in which present demand for services is far outpacing the supply, experts say.

"Patients with severe obesity have been overlooked, even shunned, by sub-acute providers," according to Michael Dionne, PT, a Gainesville, Ga.-based physical therapist and founder of Choice Physical Therapy. The company provides temporary manpower and technical training to hospitals in bariatric patient care. "These are patients who weigh between 200 and 700 pounds or more," Dionne adds.

Figures culled from several sources, including the Centers for Disease Control and Prevention in Atlanta and hospital morbidity and mortality data, suggest that more than 3.5 million Americans suffer from extreme obesity. Their weight typically exceeds 300 pounds, and they have a range of medical problems.



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The reason providers have turned these patients away isn't based on indifference, Dionne says. General acute-care hospitals have become familiar with the medical problems of severely obese patients. But almost nothing is known about how to direct their long-term medical care in a

rehab environment, Dionne asserts.

Providers are also concerned, often justifiably, that these patients are expensive to care for and that they require additional staff training and special equipment, including large mechanical lifts and wide wheelchairs. Furthermore, few protocols have been pub-

lished for their bedside management, which hampers efforts to develop cost-efficient programs of care, adds Dionne.

Current Medicare and Medicaid reimbursements have not made these patients financially attractive, he notes. The two government-sponsored programs are the chief

## Simple patient-transfer technique Teamwork reduces risk of injury.

**W**orking with a banatic patient is likely to expose a rehab-assist team to a heightened potential for personal injury, says Michael Dionne, PT, a physical therapist in Gainesville, Ga., who trains hospital personnel on working with extremely obese patients.

Most of the challenge focuses not on the therapy but on simple daily movements and transfer techniques. Dionne illustrated four steps involving the transfer of a seated 500-pound patient from the edge of a bed to a wheelchair. An optimum number of three rehab aides should be involved in the transfer, Dionne observes. Here's how it works:

■ Before moving the patient, the aides must place a nylon draw sheet under the patient. To ensure a safe transfer for both the staff and the patient, one staff member must stand on each side of the seated patient. The patient's thighs and feet must be parallel to the floor.

A third aide should be standing behind the wheelchair holding one side of the chair firmly against the side of bed next to the patient's knees. With the armrest of the chair closest to

the side of the bed removed, the two workers standing on each side of the patient need to time their movements with accuracy.

■ Holding the draw sheet firmly in two hands and in a position above the patient's legs, the aide closer to the back edge of the chair has to pull his or her end of the sheet up and away from the bed in a forward swiveling motion.

■ The other aide is to pull his or her end of the sheet in a level, upward direction to keep the patient from falling to one side. By synchronizing these movements, the patient can be transferred in a sideways direction forward from the bed to the waiting chair, Dionne says.

What is most important about the movement Dionne emphasizes, is that the patient's thighs remain parallel to the floor at all times and the legs stay closed, which can be achieved by firmly "blocking" the patient's legs from each side with each staffer's own legs. The maneuver eliminates the need to lift in a pulling or pushing motion, which can avoid

However, Dionne acknowledges that despite the minimal effort involved, personnel assigned to performing these tasks should be in good physical condition.



payment sources, but a number of severely obese patients are uninsured.

Once their acute medical problems are stabilized, bariatric patients are typically discharged to home care programs without regard for their obesity-related disability, says Sharon Balters, RD, PhD, director of Madonna's Clinically Severe Obesity Rehabilitation program.

Madonna officials took a different tack. They admitted post-operative and acute-care referrals from local hospitals and physicians. Most of these patients were seriously ill. They suffered from renal failure, diabetes, respiratory distress and cardiac problems. Many needed daily ventilator support. All were bedridden, Balters says.

The hospital is one of only two inpatient rehab institutions that *Rehab Report* has found with any type of formal inpatient program in bariatric rehab. The other is Jewish Memorial Hospital and Rehabilitation Center in Boston. [Jewish Memorial officials did not respond to a request for information.]

## Profession lacks relevant staff safety guidelines

Thus far, hospitals that work with bariatric patients have largely been on their own regarding the development of relevant staff safety measures, says Dionne.

This is a patient population that faces a constant obstacle in attaining mobility because of their extraordinary size and weight, says Sandy Stutzman, RN, employee health manager at Madonna. Therefore, the rehab staff has a direct daily involvement with each patient, Stutzman says. Transferring the patient from a bed to a wheelchair requires careful planning.

In addition, many bariatric patients are extremely lethargic and unresponsive. They also experience difficulty in breathing, going to the bathroom or simply sitting upright

The process of working with these patients involves taking extra precautions when moving them, working at a much slower pace than usual and coordinating with other staff members during routine movements, says Stutzman. Established principles of body

mechanics learned in professional training apply as much to bariatric patients as to anyone, says Michael Bradbury, PT, a physical therapist in Madonna's CSOR program.

Terry Jennings, PT, a Poughkeepsie, N.Y., therapist who conducts in-service education programs on injury prevention for health care workers, says little is known about working with the extremely obese from a worker-safety standpoint. Jennings offers some suggestions.

For example, upon admission, a risk assessment should be done on each patient, Jennings says. The assessment should address questions such as these:

- How much relative independence does the patient possess?
- How much direct staff involvement will be needed and at which times of day?
- What will be the specific duties of each rehab team member?
- What kinds of specific mobility problems are to be addressed?
- Will therapists and aides participate directly in hands-on therapeutic programs or

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will some staff be limited to assisting in activities of daily living?

However, in working with extremely obese patients, what appears to make a big difference is a consistent reliance on mechanical lifts, wheelchairs, draw sheets and shower commodes.

Standard commodes, even those bolted to the wall, peak in strength capacity at about 200 pounds. Bariatric commodes are larger in size and are designed to support much heavier loads. They also enable aides to be less physically involved in patient handling.

## Equipment has helped and hindered progress

A small but growing cadre of companies is responding to the industry's demand for special designs and stronger materials in bariatric assistive devices.

A Cambridge, Md., firm, for example, manufactures an adjustable "litter" that converts to a chair. The equipment enables rehab workers to slide an obese

patient from a bed to the litter in a supine position. The litter can then be elevated at the head and foot to raise the patient into a seated position.

Made by Cambridge Technologies, the litter is especially useful when a lift sling can harm the patient or when transferring obese hip- or knee-replacement patients. Its adjustable horizontal positioning frees both patient and attendant from concerns about interfering with the site of the surgery, especially in the presence of an internal or external hip or knee fixator. Its relative width and construction enable the litter to support someone with a weight of 200 pounds or more.

Another company meeting the needs of the growing bariatric market is Columbus McKinnon in Amherst, N.Y. The company found a niche for turning its expertise in heavy construction equipment to building mechanical lifts that can support patients of 600 pound or more.

The firm manufactures an adjustable overhead lift that fits over a bed like a

## Information on bariatric medicine and worker- safety issues

■ **Madonna Rehabilitation Hospital, Carol Jess, public relations manager, 5401 South St., Lincoln, NE 68506; 402/489-7102; Web site: [www.madonna.org](http://www.madonna.org)**

■ **Choice Physical Therapy, Michael Dionne, consultant, 5233 Indian Circle, Gainesville, GA 30506; 770/532-4327; Web site: [www.bariatricrehab.com](http://www.bariatricrehab.com)**

■ **Occupational Health and Safety Administration, Public Affairs Office, 200 Constitution Ave., Room 3647, Washington, DC 20210; 202/693-1999; Web site: [www.osha.gov](http://www.osha.gov) (click on "Draft Proposed Ergonomic Standards?")**

■ **Joint Commission on Accreditation of Healthcare Organizations, Public Affairs, 1 Renaissance Blvd., Oakbrook Terrace, IL 60181; 630/792-5000; Web site: [www.jcaho.org](http://www.jcaho.org) (click on Search and type in "Ergonomics: How to Contain On-the-Job Injuries in Health Care")**

reinforced-steel arch and can move the sling extended from a chain electrically along a track in a side-to-side direction.

Using the proper equipment enhances the rehab team's ability to apply traditional biomechanical principles to lifting, supporting and managing bariatric patients, says Amy Nelson, OT, a therapist in Madonna's CSOR program. But it has also become apparent that so much reliance on equipment has left moot the safety issue regarding hands-on staff interaction.

Proponents of dedicated bariatric rehab support the idea of creating self-contained hospital-room environments designed exclusively for obese patients. The rooms should be adjusted and equipped with mechanical ventilators, parallel bars, large bathrooms and showers, and widened doorways. They should also be furnished with king-sized beds (exceeding 60 inches in width), 36-inch-wide wheelchairs, and large shower seats and commodes, says Dionne.

Economically, "it's more feasible for a hospital to set up a designated, properly equipped room for the bariatric patient than to rent the equipment piecemeal," says Robert Dearstyne, a marketing director of mobility products at Columbus McKinnon.

## Safety measures should be based on patients' needs

But equipment aside, is staff safety training a simple matter?

The training should coincide with the therapeutic goal of helping patients gain a measure of functional independence, says Jennings. To begin with, the staff should be aware that their physical involvement with a bariatric patient is limited by the patient's relative dependence on mechanical devices.

The patients are bound to have trouble sitting up in bed, rolling over and going to the bathroom. These factors should make the creation of specific training protocols relatively easy to identify, says Jennings.

The unit should have specific, fixed policies regarding when the patient should or should not be moved or touched and appropriate handling maneuvers for rolling, supporting and eventually ambulating the patient. These standards can be developed internally based on practical biomechanics and common sense, says Stutzman. But therapists should regularly review and modify them based on each patient's requirements. The more therapists know about the needs of each patient, the better, says Jennings.

At Madonna, staff training for the CSOR program is not formalized. Except for an initial orientation session for new team members and two shorter sessions later, the staff has found that relying on their professional rehab education and training has worked best in the 1 l-bed unit.

More experienced staff regularly coach assigned personnel. The therapy staff members play a big role in contributing their knowledge to the mix of formal education and on-the-job training, says Nelson. The unit has not had a single incident of staff injury with a bariatric patient, says Balters.

As hospital admissions involving bariatric patients increase, administrators will no doubt have to address the issue of staff safety in greater detail. The Joint Commission on Accreditation of Healthcare Organizations in Oakbrook Terrace, Ill., has joined ranks with OSHA on the subject of ergonomics in reducing employee on-the-job injuries.

These efforts are occurring at an opportune time, according to bariatric

medicine proponents. At the moment, it seems the issue of delivering better medical care to the obese is intrinsically tied to the ability of providers to create a safe, quality setting for both patients and staff.

*Harry Perkins is a freelance writer specializing in medical, science and business topics.*

For Department of Labor statistics on occupational injuries to physical and other therapists, go to [www.rehabreport.com](http://www.rehabreport.com).

