

Prepare to care for patients of size

How to make mobilization and lifting safer for bariatric patients and staff

By Dee Kumpar, MBA, BSN, RN, CSPHP



Providing care for bariatric patients is a concern for healthcare facilities and staff everywhere. Delayed patient mobilization due to fear of injury and lack of proper policy, knowledge, or equipment for handling these patients can lead to poor outcomes—and may pose legal and ethical concerns. Specialized equipment, beds, patient lifts, and surgical instruments must be made

available to help nurses and other healthcare professionals care for and support best practices for bariatric patients. (See *Bariatrics by the numbers*.)

Mobility matters

When patients can't mobilize independently, they rely on nursing and physical therapy staff to prevent immobility complications—pressure ulcers, contractures, deep vein

thrombosis, muscle wasting, and pneumonia. Increased patient size is a significant barrier to early mobility, as are lack of proper equipment to lift and move the patient.

Yet providing early mobilization for dependent patients is challenging, and when they're large, it may seem overwhelming. The bariatric patient may be at even greater risk for immobility and deconditioning during hospitalization because nurses may fear they'll injure themselves while providing patient care. Manual patient mobilization increases the risk of musculoskeletal injury to caregivers. One study found that although bariatric patients accounted for less than 10% of the patient census in acute-care facilities, patient-handling injuries involving them accounted for 29.8% of staff-reported injuries. Safe patient handling and lifting requires skill and specialized products that support early mobility, lifting, and ambulation.

Bariatric patients may fear falling and may be embarrassed that it takes four or five people to lift, move, or support them during toileting or out-of-bed activities. They may have moderate to severe mobility limitations due to body type, decreased range of motion at the hip and knee, generalized adiposity, and location and size of the pannus (a dense layer of fatty tissue over the lower abdominal area).

Bariatrics by the numbers

In 2011, the Centers for Disease Control and Prevention reported that 69% of adults were overweight, including 35% who were obese. Among adolescents ages 12 to 19, 18.4% were obese; among children ages 6 to 11, 18% were obese; and among children ages 2 to 5, about 12% were obese. Obesity is defined as a body mass index (BMI) of 30 to 39; morbid obesity, a BMI of 40 or higher. Overweight is defined as a BMI between 25 and 29.9.

Overweight and obese persons are at increased risk for many diseases and disorders, including type 2 diabetes, hypertension, hyperlipidemia, coronary heart disease, gallbladder disease, cancer, osteoarthritis, sleep apnea, and depression.

Promoting a culture of safety

As a nurse, you can lead the way to creating and maintaining a culture of safety by supporting and modeling safe patient-handling practices on your unit. A focused approach to managing bariatric patients' mobility needs requires thoughtful planning and knowledge of the technology designed to support care for these patients throughout their entire stay. Lifting and mobility practices can be standardized successfully if nurses have a voice in developing a safe patient-handling and mobility (SPHM) program and in selecting SPHM technology.

Assessing the level of assistance needed

Changing practice begins with evaluating the types of lifting and moving tasks required. Bariatric patients may need assistance with common activities, such as toileting, bathing, skin care, eating, sitting upright, and ambulating. To eliminate variations in care practices, caregivers should be clear on how to assess a patient's mobility status. Barriers to moving independently—not the patient's weight—should be the main criteria for determining the need for lift equipment.

Standard categories of dependency levels include:

- *dependent*—the patient relies on the nurse or caregiver for all lifting and moving activities
- *minimally to moderately dependent*—the patient relies on the nurse or caregiver for more than 50% of lifting and moving activities
- *independent*—the patient can perform lifting and moving activities without assistance from the nurse or other caregiver.

Other assessment considerations include:

- weight-bearing capability (full, partial, or none)
- whether the patient has bilateral upper-extremity strength
- patient's level of cooperation and comprehension
- medications, such as vasopressors and paralytics
- conditions that may affect choice of transfer technique, such as stomas, fractures, severe edema, or joint replacements.

For more information on assessment, read "Implementing a mobility assessment tool for nurses" in this supplement.

Patient-handling algorithms

In 2003, the Veterans Administration created algorithms to provide guidance on how to safely perform high-risk activities related to patient handling and movement. Each algorithm specifies the suggested number of caregivers as well as selection and use of appropriate lift equipment. To download these algorithms, visit www.tampavaref.org/safe-patient-handling.htm.

Organizational guidelines

Manual lifting of any patient isn't safe. The National Institute of Occupational Safety and Health (part of the Occupational Safety and Health Administration), recommends 35 lb (15 kg) as the safe patient-lifting limit for healthcare workers. The American Nurses Association (ANA) supports a policy of no manual lifting, as discussed in its 2013 book, *Safe Patient Handling and Mobility: Interprofessional National Standards*.

A 2010 white paper from The

Facility Guidelines Institute, titled *Patient handling and mobility assessment* (FGI-PHAMA), provides recommendations for the right amount of equipment in the right location based on the specific needs of patients on each type of unit. (The ANA publication mentioned above cites this document as supporting evidence on select-

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ing and using lift equipment.) For example, we know many patients in intensive care units (ICUs) are dependent and must rely on nurses to boost, turn, and reposition them frequently throughout the day. FGI-PHAMA recommends 100% ceiling lift coverage in ICUs to ensure patient mobilization activities can be done without delay or injury to nurses. For medical-surgical units, FGI-PHAMA recommends 50% ceiling lift coverage, because generally half the patients on these units depend on the nurse to lift, manage, move, and support their ambulation activities throughout some portion of their stay.

Challenging environments

Advances currently are under way to promote safe patient handling in other challenging hospital areas, such as the operating room (OR), emergency department, outpatient areas, and ancillary units. Preplanning for patient flow and transfer activity to and from these units is essential. The care team must communicate, coordinate, and cooperate during patient transport, lateral transfers, and

Case study: Bariatric surgery using the proper SPHM technology

By Ronda Fritz, RN, BSN, MA

An estimated 179,000 bariatric surgeries were performed in the United States in 2013. Demand for such surgery continues to rise. However, using safe patient handling and mobility (SPHM) technology in the operating room (OR) can be challenging because of the sterile environment and potential lack of knowledge about safe equipment use—especially for such tasks as lifting the pannus and limbs. This case study shows how one nurse was able to promote a culture of safety in the OR and how the surgeon recognized the benefits to both the surgical team and patient. As described below, a team of experts in the hospital determined how to incorporate the patient lift system to support the pannus during surgery to protect staff from injury and enhance the surgeon's visualization and safety.

A morbidly obese patient weighing 488 lb (221 kg) with a BMI of 70 was scheduled for a panniculectomy (pannus removal) and hernia repair. The surgeon requested use of a patient lift during the procedure to lift and hold the pannus. As the patient was being prepped for surgery, the surgeon learned that the requested Böhler Steinmann pin holders, which would attach to the lift to support the pannus, weren't available. He cancelled the surgery and rescheduled it for a later date. He said he wouldn't perform the surgery without the patient lift because he didn't want staff to hold the pannus, which weighed more than 100 lb (45 kg), for the 3 to 5 hours the surgery would take.

The panniculectomy was rescheduled. Before the operation, the nurse worked with SPHM experts to assess how to best handle the patient and developed a plan to incorporate the patient lift system to support the pannus during surgery, thus protecting staff from injury and enhancing the surgeon's visualization and safety.

The surgery was performed with use of a portable patient lift. The patient was positioned on an OR table appropriate for his size and weight and prepped in sterile fashion. The pannus was suspended with two Steinmann pins attached to two Böhler Steinmann pin holders and a Golvo® 7007 lift. The patient was draped and prepped in standard sterile fashion. An SPHM expert positioned and operated the lift during the procedure. The panniculectomy removed 40 lb (18 kg) of adipose tissue. When the surgery was completed, the patient was transferred off the OR table with an air-assisted lateral transfer device.

Benefits of using the proper equipment


Using the proper patient-handling equipment during the panniculectomy yielded the following benefits:

- No unpredictable movement of the pannus occurred while it was attached to the lift. It was moved only when the surgeon moved the tissue or directed the SPHM expert to reposition or lift it.
- Use of the lift during the surgery enhanced patient safety.
- The patient's adipose tissue was hiding many blood vessels. Having the pannus stabilized by the lift helped avoid unintentional vessel dissections. Estimated blood loss was 300 mL.
- Use of OR staff was improved. Although six additional staff members were assigned to assist with holding the pannus and transferring the patient off the OR table, they weren't needed and were released to other duties.
- No staff members were injured during the procedure. Because the air-assisted lateral transfer device was used, no patient or staff injuries occurred during transfer from the OR table to the bed.
- No patient injuries occurred.

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repositioning. With technology available to prevent injury to both caregivers and patients, no department should put staff at risk for injury during transfer activities.

(For a case study on bariatric equipment use in the OR, see *Case study: Bariatric surgery using the proper SPHM technology*.) Bariatric patients present multi-

ple concerns for healthcare workers. We encourage all nurses to speak up about safety and to support a SPHM workplace environment. 

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