

## AAHC issues guidelines for obese patients

Screening heavier patients for ambulatory surgery just became a little easier, thanks to a new brochure from the Accreditation Association for Ambulatory Health Care (AAHC) Institute for Quality Improvement, Skokie, Illinois.

Titled “Ambulatory surgery and obesity in adults: Preventing complications,” the two-page toolkit draws on some 40 research articles outlining risks and techniques associated with surgery on obese patients. It covers evaluation methods and surgical considerations, and includes a flow chart for quick reference.

The growing number of obese Americans and increasing use of outpatient surgery prompted the AAHC Institute to consolidate research findings for easy reference, according to senior director and general manager Naomi Kuznets, PhD. “Knowing the risks and how to handle obese patients is important for ambulatory surgery centers [ASCs] and office-based practices,” she says.

The toolkit can be downloaded at [www.aaahc.org/en/institute/resources](http://www.aaahc.org/en/institute/resources). Another toolkit, “Ambulatory surgery and obstructive sleep apnea,” is also available on the site.

### Careful selection needed

The National Institutes of Health (NIH) uses the body mass index (BMI), a formula based on the ratio of height to weight, to define weight classes. BMI may not be the most accurate determinant of obesity because it does not reflect muscle mass and other components. Some experts favor techniques such as hydrostatic weighing, which measures total body water, minerals, fat, and protein.

The NIH considers a person with a BMI of 25 to 29.9 as overweight, and a BMI of 30 or higher as obese. Obesity is further divided into three BMI classes:

- Class I: 30 to 34.9
- Class II: 35 to 39.9
- Class III: 40 and above.

The Centers for Disease Control and Prevention estimates that 69% of US adults are overweight and 36% are obese. Even as more people become heavier, more complex procedures are moving from hospitals to outpatient settings.

The only way to manage that trend is to pay even closer attention to patient selection. As anesthesiologist David Shapiro, MD, manager of the Ambulatory Surgery Company in Tallahassee, Florida, notes, “Most ASC tragedies occur not from error, but from faulty patient selection.”

With obese patients, associated conditions such as obstructive sleep apnea increase the risk of undergoing anesthesia.

The American Society of Anesthesiologists publishes a six-level scale of patient status ranging from normal and healthy to brain dead. Weight is only one of the factors used to locate a patient on the scale.

The Agency for Healthcare Research and Quality (AHRQ), part of the US Department of Health and Human Services, advises against accepting a patient with a BMI higher than 34.9 for outpatient surgery (see patient selection guidelines at [www.ahrq.gov](http://www.ahrq.gov)).

Meena Desai, MD, managing partner of Nova Anesthesia Professionals in Villanova, Pennsylvania, notes that the problem is not so much a patient's weight, but the comorbidities that accompany it. In addition to obstructive sleep apnea, they may include:

- systemic hypertension
- coronary artery disease
- asthma
- stroke
- renal dysfunction
- diabetes
- deep vein thrombosis.

Even successful surgery may have aftereffects. "The risk of respiratory complications may last for several days after surgery," Dr Desai says.

### **Higher infection rates**

During a procedure, high BMI creates other difficulties. According to research by William Mihalko, MD, PhD, chair of the department of orthopedics at the University of Tennessee, Knoxville, high BMI can raise blood glucose levels, increasing the risk of surgical site infections. The presence of diabetes also may delay wound healing, he notes.

Heart disease may be aggravated by the stress of surgery. Dr Mihalko and his colleagues found obese patients had higher mortality after total hip arthroplasty and higher rates of coronary events following total knee arthroplasty.

In a presentation to the American Academy of Orthopaedic Surgeons, Dr Mihalko noted that even without general anesthesia, obese patients in ASCs tend to have more complications.

"Even when regional anesthesia is used, obese patients with sleep apnea have higher complication rates after orthopedic procedures," he said.

Researchers at Johns Hopkins University School of Medicine, Baltimore, found obese patients are 12 times more likely to experience complications following elective plastic surgery.

In a study published in the journal *Plastic and Reconstructive Surgery*, Martin Makary, MD, MPH, reported, "Our data demonstrate that obesity is a major risk factor for complications following certain kinds of elective surgery."

Dr Makary notes that obese patients present an additional problem for surgeons: Their procedures are more difficult, yet reimbursement from insurers and Medicare remains the same as for less challenging patients.

"Payments are based on the complexity of the procedure and are not adjusted for the complexity of the patient. Policymakers need to make sure they aren't giving physicians financial incentives to discriminate on the basis of weight," Dr Makary says.

Other researchers have noted that ASCs seeking to serve obese patients must also invest in new equipment, such as longer needles and sturdier furniture. Staff must be trained to lift and maneuver heavy patients safely, and still there is risk of injury.

### **The selection process**

In its review of the scientific literature, the AAAHC Institute concludes that BMI alone should not dictate whether a patient is appropriate for the ASC. This is especially true for patients with BMIs below 50, the toolkit explains. However, "the literature indicated that the 'super obese' (BMI >50 kg/m<sup>2</sup>) appear to be at higher risk of perioperative complications and should be thoroughly evaluated before undergoing

surgery in an ambulatory setting.”

The toolkit also reminds ASC managers to be sure staff are trained to communicate with patients about their physical size, showing compassion and sensitivity.

The preprocedure screening is especially important, the toolkit notes, and identification of comorbidities should be a primary consideration.

A review of current medications should include weight loss drugs. Patients with obstructive sleep apnea should avoid opioids, and the toolkit recommends the lightest practical level of sedation.

The flow chart shows the BMI and waist measurements and reviews comorbidities. At each stage, a patient not within guidelines should be referred to a hospital, or the procedure should be delayed until conditions improve.

The toolkit is meant for immediate use—the AAAHC Institute offers a laminated version to post on the wall—but can also be a starting point for discussion.

“This new tool is intended for quick reference when staff have questions. It also can serve as a guide for surgery center clinical committees in developing their own internal guidelines,” Kuznets says. ❖

—Paula DeJohn

## References

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Chen C, Shore L, Johns R, et al. The impact of obesity on breast surgery complications. *Plastic & Reconstructive Surgery*. 2011;128(5):395e-402e.