



Time for a Mindshift on Obesity Care and Gastric Emptying

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We have all read the numbers. We all take care of the patients. But we bring our own experiences and biases, with varying levels of knowledge about obesity and its treatments, to the job. The media – lay press, social media, and medical journals – all play roles in our attitudes and behaviors toward those with obesity. A disproportional number of surgical patients have obesity-related conditions, such as cardiovascular disease, cancer, arthritis, renal disease, and chronic pain. Imagine if we played a positive role in decreasing that impact on human life and health care spending?

Understanding of the physiology and pathophysiology of obesity has skyrocketed in recent years. To “eat less and exercise more” has been roundly disproved as an effective prescription for a very complex disease process (*Curr Obes Rep* 2016;5:201-7). Widespread misunderstanding of the current body of knowledge, revealed in many online physician discussions, may lead to bias and stigma, which in turn degrades care for those with obesity (*Obesity Reviews* 2015;16:319-26). Overheard recently in ORs where we work: “I don’t understand why they don’t just stop eating, like I do.” “Sure, obesity is a ‘disease,’” (sarcasm in italics). Something just read in an anesthesiology social media forum: “It was your choice to take those meds” (as opposed to attempting weight loss through purely behavioral methods, to someone struggling with weight loss). In an anesthesiology news journal, a reader commented, “instead of doing the work of most high BMI patients, we continue to look for the quick fix” (asamonitor.pub/47X3kCi). In anesthesiology publications, leadership missives, and chat forums, glucagon-like peptide 1 receptor agonist (GLP-1) medications are erroneously called “off-label” for weight loss, when there are three specifically FDA approved for the treatment of obesity (liraglutide since 2014 and semaglutide in 2021 in adults, and tirzepatide most recently, a dual action incretin with GLP-1 and gastric inhibitory polypeptide agonism activity).



With 42% of the pre-pandemic U.S. adult population classified as obese, all physicians – anesthesiologists included – must prioritize productive, compassionate care for people affected by this pervasive disease (asamonitor.pub/49YJKre). From their recent position statement on addressing bias and stigma in patients with obesity, the American Association of Clinical Endocrinology states that “Weight bias within the health care system and their personnel results in unempathetic care and shaming of patients and impedes the development of and access to effective care programs with the notion that [obesity] is a lifestyle choice and not a chronic disease” (*Endocrine Practice* 2023;29:417-27). Many patients with obesity avoid medical care, anticipating the “fat shaming” and bias that they have already experienced in the health care system. They miss out on basic health care and screening as well as opportunities to treat the disease that likely contributes to their medical challenges. Only 1% of people eligible for metabolic/bariatric surgery undergo it (*Surgery for obesity and related diseases* 2019;15: 146-51). Less than 2%

of people eligible to take anti-obesity medications (AOMs) are prescribed them (*Obesity* 2019;27:1975-81). Mortality is increased by nearly 18% in those with “excess weight” overall, with differences in sex, age, and racial characteristics (*EClinicalMedicine* 2022;48:101429). The rate of obesity in our population has more than tripled since the 1960s (asamonitor.pub/3N4Voae). Have we become three times lazier and more gluttonous? Of course not. Our environment and lifestyles have changed drastically.

The media initially embraced celebrity promotion of highly effective GLP-1s but now races to sensationalize speculation of every potential side effect. Common effects of all significant weight loss can be seen blamed on new medications (“Ozempic face,” gallstones, hair loss, loss of muscle mass). They are generally well-tolerated and safe, with some legitimate contraindications and rare significant side effects in susceptible patients. GLP-1s have been used since 2005, when exenatide was approved for the treatment of diabetes mellitus, and thus have a long safety record. Drs. Das and Shafer summarized the impressive health benefits of GLP-1s several months ago in the *ASA Monitor* (*ASA Monitor* 2023;87:1,4). But be aware that there are six other FDA-approved anti-obesity medications being used successfully in conjunction with the other pillars of obesity treatment: behavior, nutrition, and physical activity. They all are tools to be used alongside a comprehensive treatment plan for the appropriate patients.

Gastric emptying delays

Appropriately, our specialty is addressing the desired delay in gastric emptying. The ASA Task Force on Preoperative Fasting recently issued an advisory on



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holding GLP-1s due to concerns about increased risk of aspiration under anesthesia (asamonitor.pub/3O9to4O). Though case reports of full stomachs with appropriate fasting duration abound, we have little data about the true incidence of significant delayed gastric emptying with usual preoperative fasting, or about incidence or risk of aspiration. As a result, the task force has made conservative recommendations until such data clarifies the true risk. The side effects tend to abate with time on the drug, and between dose escalations. I personally (SB) have cared for hundreds of patients on GLP-1s without issue, though I take a careful history of drug duration, dosing schedule, and symptoms. Many wonder why we did not see or read of significant gastric emptying delay or full stomachs until recently, when there are now five separate drugs in seven forms being used clinically. The higher potency of the newer agents may cause both better diabetes management and weight loss, as well as more gastric-emptying delays.

The ASA Task Force on Preoperative Fasting recommends holding weekly injectable medications (semaglutide, dulaglutide, and tirzepatide) for one week prior to surgery, and daily dosed medications (oral semaglutide and all other injectables such as liraglutide) for one day prior to surgery, with standard NPO durations. These hold times are roughly one elimination half-life for each of the medications per their package inserts, though clinical effect half-lives are not described. Many anesthesiologists report that some patients still have significant gastric

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Learn more through the Obesity Medicine Association (obesitymedicine.org), the American Association of Clinical Endocrinology (aace.com), the American Society for Metabolic and Bariatric Surgery (asmbs.org), The Obesity Society (obesity.org), the Obesity Action Coalition (obesityaction.org), and many others.

and self-care. Caring for colleagues with distress, depression, SUD, and suicidal risks is critical, as are peer-support programs for second victims. Robust resources for anesthesiologists' well-being exist via ASA and the American Medical Association, along with national suicide prevention hotlines.

Psychological safety

Psychological safety describes the felt permission for candor that enables teamwork to thrive and for others to speak up – to disagree with the leader, ask for help, and admit errors without the fear of being humiliated, blamed, or ignored. Psychological safety exists at the group level; the local authority figure has the

So, What Exactly Is Psychological Safety?

The ability to:

- Ask questions
- Share concerns
- Admit mistakes
- Request help
- Raise dissenting views

Without the fear of being:

- Humiliated
- Blamed
- Ignored

It is NOT:

- The same as a “safe space”
- Freedom from conflict
- Always easy
- A license to inflict harm
- Elimination of hierarchy
- The absence of accountability

most powerful influence on the climate of the team environment. In the OR, anesthesiologists are in a crucial position to create psychological safety. They can

ask open-ended questions to encourage contribution, such as, “What do I have wrong about this?” Always appreciate the thoughts and suggestions offered and

be willing to discuss. Such actions highlight to the team that they have been heard, not ignored, and serve as learning moments. ■



All references, resources, and recommendations from these authors on these topics can be accessed via the QR code.

Report medication errors related to medication shortages:

- ismp.org/report-medication-error
- forms.asahq.org/81783710213149

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contents retained with those recommendations, though many more undergo uneventful anesthetics. Clinical experience of obesity medicine experts is that there is wide variability in dose response and in side effects for these drugs. They must be tailored carefully, and we suggest that our drug hold times and NPO times will have to account for this variability. Objective measures via gastric ultrasound of stomach contents or similar procedures must be added to our preoperative assessment

for these patients to improve good decision-making and minimize both risk and unnecessary cancellations. Longer fasting for solids may prove effective, but controlled research regarding emptying times and which patients are at highest risk is required. Potential consequences of holding the drugs for prolonged periods of time should also be defined. We need to work with other groups of experts (obesity medicine, endocrinologists, pharmacologists, etc.) to refine our guidelines.

Now is a thrilling time for the treatment of obesity, with amazing breakthroughs in knowledge, surgery, pharmaceuticals, and a

growing community of experts in the field certified by the American Board of Obesity Medicine. But we have many miles to go, fighting the high incidence, myriad causes, and barriers to treatment. The GLP-1s are the start of many new anti-obesity drugs coming through the pipeline, to which we must adapt, just as we have with many other challenging drugs. As physicians, we owe it to our patients to educate ourselves and play an active, positive role, especially in how we treat our patients and each other. We must encourage our patients to continue accessing good, unbiased health care. Having

obesity is not a personal failure. Treating it is legitimate and necessary. ■

Disclosure: Dr. Fitch is an advisor for Novo Nordisk, Eli Lilly, SideKick Health, Jenny Craig, Vivus, Currax, and Carmot.

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Thoracic epidural analgesia for cardiac surgical patients (September 2023)

Neuraxial analgesia is not generally employed for cardiac surgery in the United States due to concerns about spinal epidural hematoma (SEH) after systemic anticoagulation for cardiopulmonary bypass. However, a recent meta-analysis including 51 randomized trials in cardiac surgical patients noted thoracic epidural analgesia (TEA) was associated with shorter lengths of stay in the intensive care unit and hospital (by approximately seven hours and one day, respectively), as well as lower pain scores and rates of delirium, transfusion, arrhythmia, and pulmonary complications.¹ No trial reported a case of SEH. These findings support the use of TEA in cardiac surgical patients.

Aerosol generation during noninvasive respiratory support modalities (October 2023)

Studies have reported conflicting data as to whether high levels of aerosols are generated when noninvasive ventilation (NIV) or high-flow nasal oxygen (HFNO) is used. In a 2023 systematic review including 12 studies in patients with respiratory infections and 15 studies in healthy volunteers, use of NIV or HFNO was not

associated with increased generation of pathogen-laden aerosols compared with controls with unsupported normal or labored breathing, low-flow nasal oxygen, or oxygen or nonbreather mask.² Inconsistency among studies may reflect differences in sampling and detection methodologies and operating room ventilation. Notably, the National Health Service in the United Kingdom has removed mask ventilation, intubation, and extubation from its list of aerosol-generating procedures.

1. Chiew JK, Low CJW, Zeng K, et al. Thoracic Epidural Anesthesia in Cardiac Surgery: A Systematic Review, Meta-Analysis, and Trial Sequential Analysis of Randomized Controlled Trials. *Anesth Analg* 2023; 137:587.
2. Zhang MX, Lilien TA, van Etten-Jamaludin FS, et al. Generation of Aerosols by Noninvasive Respiratory Support Modalities: A Systematic Review and Meta-Analysis. *JAMA Netw Open* 2023; 6:e2337258.

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