

Updated Evidence-based Recommendations for Best Practices in Weight Loss Surgery

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The prevalence of severe obesity continues to surge despite a rapid increase in the use of weight loss surgery (WLS) (1,2). The number of operations climbed 900% from 1998 to 2004 (ref. 3), and another 11% between 2005 and 2006, growing from ~180,000 (ref. 4) to an estimated 200,000 (refs. 1,4). WLS generates substantial, sustainable weight loss and improvements in obesity-related comorbidities (5,6). Mounting evidence also indicates significant survival advantages in WLS patients compared with their untreated peers (7–12).

Benefits notwithstanding, there are associated risks of surgery, including a nationwide mortality rate of ~1% and a morbidity rate of 20% (6). This issue of *Obesity* addresses these risks with a series of evidence-based updates to best practice recommendations published in 2005 (ref. 13). Findings in these reports are based on a comprehensive review of the most current literature on WLS. They directly link patient safety to methods for setting evidence-based guidelines developed from peer-reviewed scientific publications (14). This approach has been accepted as a reasonable and rational way to make decisions about the individual care of patients (15). We believe that it is a valid route to best practice recommendations, not only in the field of WLS, but in other areas of medicine as well (14).

More than 100 specialists from across the state and across the many disciplines involved in WLS came together to develop these new standards. They assessed the quality, impact, and applicability of evidence from comprehensive literature review, and integrated extensive clinical expertise with the latest findings from systematic research (13–15). Their recommendations, vetted through

informed discussion, are peer-reviewed and consensus-based (16).

Guidelines developed in this way provide an unbiased summary of the latest science. They advance patient safety in a field that is subject to rapid technological and demographic change. Risks and opportunities in such environments create an imperative for a systematic approach to the evaluation of new surgical approaches, the accreditation process for training (16), and procedures for delivering comprehensive, long-term multidisciplinary care. In this supplement, a total of 11 separate task groups present these and other issues in a series of evidence-based reports.

The Surgical Care task group (17) covers the safety and efficacy of WLS options, including those on the leading edge of care. It also delves into pertinent issues in patient selection and credentialing standards. The Multidisciplinary Evaluation and Treatment group (18) focuses on the expanding scope of expertise required to optimize short- and long-term outcomes, including exercise physiology and body contouring surgery. Other task groups summarize new and compelling science in perioperative nursing (19), behavioral and psychological care (20), pediatric/adolescent WLS (21), and anesthetic perioperative care and pain management (22).

This supplement includes articles on every facet of WLS related to patient safety, from informed consent (23) and data collection (24) to detailed specifications on the equipment and facilities required to meet the needs of extremely obese patients (25). The Policy and Access group (26) speaks to healthcare disparities in WLS and issues surrounding stigma, childhood obesity,

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third party coverage, and the management of innovation. The Endoscopic Interventions group (27) reports on an emerging field at the frontier of minimally invasive WLS. With up to 1 in 10 US adults a potential candidate for WLS (28), these findings are of particular relevance.

The reach of this Lehman Center report, like that of its predecessor (13), will extend beyond the covers of this journal. It will be submitted to the Agency for Healthcare Research and Quality (AHRQ) (29) for abstracting. It will form the basis for the second International Patient Safety in Weight Loss Surgery, a Harvard Medical School CME program for surgeons, anesthesiologists, internists, and other healthcare professionals. It will be presented to the Public Health Council, the Massachusetts Department of Public Health's regulatory body (30).

The first Lehman Center report set the standard of care for WLS in Massachusetts and beyond, but much has changed since its development in 2004. The body of knowledge contained in the literature has increased substantially in size and quality. The growing need for effective treatment has prompted new or revised WLS procedures (e.g., biliopancreatic diversion and sleeve gastrectomy). And numerous efforts are underway to advance investigational approaches, such as interventional endoscopy (27) and implantable gastric stimulation (31).

Other changes have been brought about by the actions of professional societies and credentialing bodies. Since 2004, accreditation programs have been launched by the American Society for Metabolic and Bariatric Surgery/Surgical Review Corporation (ASMBS/SRC) (32) and the American College of Surgeons (ACS) (33). These efforts are sanctioned by the Centers for Medicare and Medicaid Services (34), which will only cover WLS carried out in facilities that meet standards of excellence established by these organizations.

Such advances notwithstanding, the field of WLS is maturing in fits and starts. As the US population becomes older, and increasingly obese (1), the government is stepping up efforts to standardize data collection and track short- and long-term WLS outcomes (35). At the same time, some health insurance companies have moved to restrict or deny coverage based on incomplete, inaccurate, or biased information (36). We expect these updated recommendations to counter such measures and advance efforts to deliver safe and equitable best practice care.

This report from the Expert Panel on WLS has been requested and funded by the Betsy Lehman Center for Patient Safety and Medical

Error Reduction (Lehman Center). Its purpose is to improve the safety and well-being of patients who undergo WLS in the Commonwealth of Massachusetts.

Since the publication of the original Lehman Center guidelines (13) in 2005, certain hospitals in the state have discontinued their WLS programs, while new ones, accredited by the ASMBS/SRC or the ACS, have entered the field. Since 2005, the mortality rate for WLS in the state of Massachusetts has been 0.25%, far below the national average. The earlier version of this document achieved its objectives. It was also instrumental in shaping policy and setting best practice standards on a national and international scale (37–40). We expect nothing less from this update.

SUPPLEMENTARY MATERIAL

To review task group appendices, go to www.mass.gov/dph and search "Weight Loss Surgery."

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