



PPO BEST PRACTICES FOR ASSURING SUCCESSFUL BARIATRIC SURGERY OUTCOMES

ISSUE BRIEF

BARIATRIC SURGERY – A FRAMEWORK FOR PPOS

INTRODUCTION

Over the past decades obesity has emerged as one of the most significant chronic conditions in the U.S. According to the Centers for Disease Control and Prevention, one third of the adult population and 15% of children are obese (Body Mass Index greater than 30.)¹ Obesity is one of many underlying factors in the escalating costs of health care in the US: a July 2009 study in Health Affairs attributed \$147 billion in medical spending costs to obesity.² For fully-insured and self-insured employers, obesity is both a health care cost and productivity problem. The National Business Group on Health reports that obese adults incur annual medical expenses almost 40% higher than non-obese adults. Plus, severely obese adults have 118% more lost time from work, and also have twice as many work limitations.³

Addressing the obesity epidemic requires a multi-factorial approach undertaken by individuals, employers, communities, schools, the media and other sources of lifestyle support and information.⁴ At the community level, recommended remedies include changing American dietary habits and increasing exercise opportunities. The health care system addresses the problem by assisting patients in maintaining normal weight, helping patients achieve medical weight loss, and supporting severely obese patients in need of weight loss surgery.

to advance awareness of the benefits — greater access, choice and flexibility — that PPOs bring to American health care. PPOs work in collaboration with the medical community respecting the doctor-patient relationship.

Currently, more than 193 million individuals are enrolled in a PPO program, which means 69 percent of Americans with health care coverage receive their health care services through a PPO delivery system. A PPO network of providers may be an embedded part of a traditional insurance program or it may be contracted as an element of a self-insured program that includes a third party administrator of claims and care management programs. PPOs also provide network services to newer types of insurance products such as consumer directed health plans. PPOs have variable access to claims data and information about quality of care.

This Issue Brief is part of a series developed by the American Association of PPOs examining bariatric surgery policy for PPOs. The Issue Briefs and the AAPPO web site on bariatric surgery (aappo.org) were created to provide risk and non-risk PPOs, along with their employer clients, with information on best practice considerations for bariatric surgery. The series is supported by Ethicon Endo-Surgery.

About AAPPO and the Best Practice Initiative

AAPPO is the leading national association of preferred provider organizations (PPOs) and affiliate organizations. It was established in 1983

PPO Roles In Leveraging Bariatric Surgery Benefits And Quality

PPOs, as the dominant delivery approach to health care in the U.S., must take notice of

obesity as an important cost driver to their customers. PPOs are positioned to work closely with employers and other purchasers to improve the delivery of preventive benefits, and to ensure high quality obesity treatment. Risk-bearing PPOs can offer their clients value-added strategies such as measurement of trends, wellness programs and initiatives to promote network physician identification and intervention of early obesity. Risk-bearing PPOs may also use benefit design innovations and incentive payments to engage physicians and patients in addressing weight management and obesity.

Non-risk PPOs offer a qualified network and clinical expertise to purchasers and risk-bearing entities. Non-risk PPOs can offer a network of high quality medical and bariatric surgery providers ensure cost effective services are available to members. These network PPOs can also position themselves to offer expert guidance to purchasers on the important trend of obesity and obesity treatment. Through their network assets, risk and non-risk PPOs can help to shape delivery and benefit options to direct patients to the highest performing services and providers and support them in engaging in healthier behaviors.

ABOUT OBESITY

The National Institutes of Health defines overweight in terms of body mass index (BMI), a measure calculated on the basis of the patient's height and weight. A BMI of greater than 25 is considered overweight, a BMI of 30 and above is considered obese, and a BMI of 40 and above is considered severe or extreme obesity. Severe obesity has increased from 2.9% of the population in 1994 to 5.9% of the population in 2006.⁵ Obesity is often accompanied by cardiac and metabolic co-morbidities, including hypertension, coronary heart disease, diabetes and sleep apnea. These factors increase the "absolute risk" of the patient and the chances of mortality. Obesity is also associated with other co-morbidities that do not impact risk of mortality but reduce patient quality of life and increase medical costs; these include musculoskeletal problems, gynecologic issues and gallstones.⁶

Impact of Obesity Treatments Including Bariatric Surgery

Physician-developed clinical practice guidelines recommend prevention of obesity and medically supervised weight loss as the first line treatments for excess weight.⁷ Overweight and obesity can be treated with behavioral modification, pharmacotherapy and bariatric surgery in any combination. Both the Centers for Disease Control and Prevention and the American Diabetes Association recommend structured interventions including education and counseling on improved health behaviors (such as exercise) as the first line approach to weight loss and reduction of risk for prediabetes. Behavioral intervention is only marginally effective, particularly for severely obese

people, as weight loss is often small, regaining weight is common, and there are variations in effectiveness across different racial and ethnic groups.⁸

A review of studies sponsored by the federal Agency for Healthcare Research and Quality (AHRQ) reported weight loss attributable to pharmacotherapy to be between approximately 3 and 6 kilograms, with weight loss up to 6% of baseline body weight.⁹ A review of research on obesity treatment by DMAA: The Care Continuum Alliance (DMAA) also found that pharmacotherapy has modest effects, with patients in combined programs of behavioral therapy plus pharmacotherapy losing approximately 5kg of weight. Weight loss was generally greater with use of medications than for behavioral interventions alone, and can be up to 16% of excess weight when behavioral interventions, medication and supervised diet are combined.

For severe obesity physician organizations have concluded that bariatric surgery is the most effective intervention. Bariatric surgery is indicated for individuals with a BMI greater than 40, or individuals with a BMI greater than 35 plus a co-morbid condition.^{10,11} The DMAA review concluded that there is "solid evidence" that bariatric surgery is effective at reducing weight.¹² Another review showed the impact of bariatric surgery on both weight and co-morbidities, finding 61% excess weight lost through surgery, a 77% reduction in diabetes, and a 61% reduction in hypertension.¹³

Considerations in Assessing Bariatric Surgery Outcomes

Bariatric surgeries have increased from 13000 in 1998 to 200,000 in 2007. The number of bariatric surgeons has increased from 250 in 1998 to 1100 in 2003.¹⁴ The number of surgeons and the number of surgeries has continued to rise since these data were published. Bariatric surgical procedures can be carried out either through open surgery or laproscopically. The majority of procedures are being done laproscopically. Gastric restriction procedures include various types of banding of the stomach, while gastric bypass procedures cut and rearrange parts of the stomach and intestinal system to alter food intake and absorption. Each type has a slightly different profile in terms of expected weight loss, nutritional impact, follow up, and rate of complications; generally the type of surgery is determined by the expertise of the surgeon as there is no clear evidence suggesting superiority of one technique over another for specific patients.¹⁵

Two key considerations impact how PPOs should respond to the rise in bariatric surgery: the effectiveness and safety of bariatric surgery, and the cost and efficiency of bariatric surgery.

- In terms of effectiveness, guidelines and evidence reviews cited in this document conclude that bariatric surgery is the most effective treatment for severe obesity. For example, a Cochrane analysis found, "Surgery results in greater weight loss than conventional treatment in moderate (body mass index greater than 30) as well as severe obesity. Reductions in comorbidities, such as diabetes and hypertension, also occur."¹⁶ As noted, there are variations in expected weight loss related to different types of bariatric surgery.
- Regarding safety, a variety of physician and insurer organizations have concluded that the rate of complications for bariatric surgery is comparable to that of other major procedures. A 2009 study concluded that the overall risk of death and other adverse outcomes after bariatric surgery is low, and should be contrasted to the risks the patient would otherwise experience from being extremely obese.¹⁷ A trends review article

in 2005 found mortality rates range from 0.1% to 0.2% and the rate of unexpected re-operations for surgical complications ranges from 6% to 9%.¹⁸ Bariatric procedures are getting safer. A 2009 study found a major drop in the complication rate over time; the authors attributed the decrease, which occurred as the patient population was becoming older and sicker, to an increase in volume of surgeons, and a greater use of laparoscopic surgery and banding techniques.¹⁹ As a result of improved safety profile of bariatric surgery, both CMS and the Veterans Administration have recognized that the benefits of surgery outweigh the risks and approve surgery when medically necessary.

- In terms of efficiency, newer procedures have reduced length of stay and cost. The study comparing surgery in 2001 and 2006 found that hospital length of stay has decreased over time, and hospital payments for bariatric surgery patients have fallen. Rates fell from \$29,563 to \$27,905 for uncomplicated surgeries and dropped from \$41,807 to \$38,175 for patients who experienced complications.²⁰ Recent years have brought more conclusive findings about the impact of bariatric surgery to reverse costly comorbidities such as Type II diabetes. With such findings there have been new calculations of return on investment for bariatric surgery. Recent studies have found an expected ROI for surgery to be realized in a period of 2-4 years, since reversals in co-morbidities such as diabetes, hypertension and sleep apnea reduce expenditures for pharmaceuticals, office visits and hospitalizations.²¹

CHANGING ENVIRONMENT FOR BARIATRIC SURGERY

An important consideration for PPOs is that the actual surgical intervention is only one component of the treatment process. Pre-operative screening and behavioral treatment are essential to ensure that patients are capable of carrying out the post operative regimen, have realistic expectations, and are motivated to succeed. Major surgical guidelines and experts in the field concur that bariatric surgery must be accompanied by behavioral and nutrition support in order to be effective. These issues will be the subject of a separate AAPPO Bariatric Best Practices Issue Brief.

Increasing Knowledge about Best Practices

High quality bariatric surgery requires a coordinated multidisciplinary approach to behavioral and physical needs of the patients in addition to high quality technical surgical services. As with many surgical procedures, bariatric surgery outcomes are better when conducted by high volume providers in experienced facilities.^{22,23}

Several organizations have taken the initiative on identifying and certifying best practice organizations. Centers of Excellence (COE) designation is based on standards that address among other topics:

- Volume of surgeries by the surgeon and the surgical facility
- Training and credentials of surgeons
- Facilities with equipment and experience working with severely obese populations
- Presence of trained staff to offer nutrition and surgical support, including follow up
- A track record of appropriately screening patients to identify and properly manage co-morbidities

Many insurance organizations require that bariatric surgeries be carried out in designated Centers of Excellence.

PPO Approaches to Bariatric Surgery Policy PPOs

PPOs have three primary roles in helping to assure best practices relating to bariatric surgery: contracting with high quality physicians and hospitals, creating or supporting evidence based medical policy, and advising employer/payer clients on strategic benefit policy. These issues are discussed here:

Contracting Strategy

The case studies in this Issue Brief reflect one approach to contracting policy: many PPOs contract with COEs for bariatric surgery to ensure patient access to a systematic surgical and behavioral approach. The case studies included with this Issue Brief reflect two overlapping approaches to contracting with best practice organizations. The Surgical Review Corporation has developed evidence based certification standards for facilities and individual practitioners. The Blue Cross and Blue Shield Association has created the “Blue Distinction” program that recognizes high performing bariatric surgery centers and is in addition to certification by an independent organization such as SRC. The Blue Distinction program is a service offered to Blue Cross Blue Shield licensed plans, and enables plans to voluntarily contract with high performing organizations. Blue Distinction also includes a consumer interface so that prospective patients can identify centers with the best outcomes. Most COEs have multidisciplinary care teams prepared to manage all aspects of bariatric surgery. PPOs can promote good outcomes by contracting with COEs and by using strategic contracting to assure that patients seeking bariatric surgery have access to a multidisciplinary array of providers in network.

Medical Policy

Health plans and medical management organizations are often called upon to develop medical policy that outlines the evidence basis for determining medically necessary services. Medical policy describes when coverage will be available, required precursors to treatment, if any,

and when the service is not considered medically necessary. The AAPPO web site includes links to a number of plans that have posted bariatric surgery policy for public access. Many policies describe the underlying evidence as part of the policy. Data on effectiveness of bariatric surgery and characteristics of high quality programs continue to be published frequently. PPOs may find that it is worth revisiting the evidence for medical necessity with clients as data continues to accumulate about the impact of surgery reducing obesity and reversing expensive co-morbidities.

Benefit Policy

PPOs medical staff have an important role in guiding benefit decision-makers in employer and other customer organizations to help them arrive at an evidence based surgery policy. A 2008 Mercer survey found that approximately 57% of public and private employers offer some type of bariatric surgery benefit.²⁴ Bariatric surgery is subject to a number of state benefit mandates; in case where it is not mandated, researchers have found that many insurers exclude bariatric

surgery from benefit coverage or make denials more frequently than for other services.²⁵ Many experts suggest a rethinking of the rationale for excluding bariatric surgery based on new findings on the health impacts and improvements in both cost and quality. Major public insurers and many private insurers are offering medically necessary coverage in the context of careful management programs.

In addition to considering coverage, benefit decision makers should consider the evidence underlying aspects of benefit eligibility. Many benefit coverage decisions depend on the beneficiary navigating a number of hurdles such as sustained preoperative weight loss. While some requirements, such as a behavioral health screening and participation in nutritional counseling prior to surgery have a clinical rationale, others may adversely impact access to medically necessary surgery. Some strategies used to design effective benefit policy will be the subject of a subsequent AAPPO Issue Brief.

EMPLOYER, PAYER AND PPO CONSIDERATIONS

PPO clinical staff are positioned to counsel employers and payers and to guide them to resources such as those cited in this Issue Brief. Employers and payers have two sources of interest in obesity and obesity treatment. One, employers are concerned with the health and productivity of their employees (and the employee's dependents, to the extent that dependent care often impacts absenteeism). Second, employers are concerned with the cost and potential cost of health care.

There are costs to providing treatment for obesity, but a growing body of research suggests that there are also costs to not treating obesity. This is due to the higher medical care utilization of obese people for obesity and related co-morbidities. For employers, determining what benefits to offer often comes down to a calculation of what benefit strategy will offer both the best contribution to health of employees and will be most cost effective. For employers, an excellent discussion of the health and productivity implications of bariatric surgery policy can be found in the publication, "Benefit Manager Guide: Bariatric Surgery," by the National Business Group on Health, a membership organization representing large employers.²⁶

The DMAA Obesity Toolkit also contains a chapter, "Value-Based Benefit Design For Obesity And Comorbidities: A Practical Manual" that includes valuable information for employers on designing and pricing and evidence based continuum of care benefits for obesity. At minimum employers are encouraged to offer benefit design that promotes identification of obesity through regular BMI assessments and promotes counseling and behavioral interventions to promote patient weight loss.²⁷

Some employers are concerned that offering an easily accessible bariatric surgery benefit will result in uncontrolled utilization. Although the rate of bariatric surgery has increased exponentially in the past years, researchers note that the rate of surgery is relatively low in relation to the number of adults clinically eligible. A 2005 study put the rate at 6% of the 11.5 million obese adults.²⁸ Bariatric weight loss medications were similarly under-utilized, with just 2.4% of potentially eligible adults receiving one or more of these medications, and with the average length of use below recommended levels. This could suggest a pent up demand for

both bariatric surgery and medications, but could also reflect limits to demand, as not all patients are ready to change. Nonetheless, it is clear that benefits need to be carefully constructed to ensure that the correct multidisciplinary service mix is offered to ensure proper patient selection, to meet patient needs, and to ensure access for patients committed to change.

Future Directions

Unfortunately, the epidemic of obesity does not seem to have crested, and employers and payers can expect to see a growing prevalence of severe obesity in the general population. All employers, health plans and PPOs are encouraged to take actions to prevent obesity, ranging from offering healthier food choices at work sites to promoting more active lifestyles. In addition, PPOs should assess the adequacy of the network for expertise in preventing and managing obesity, and develop capability in this area.

From a network management perspective, PPOs should ensure that appropriate bariatric practitioners are contracted in the network, including certified Bariatric COEs and multidisciplinary bariatric specialists. PPOs will be able to deliver added value to customers by addressing obesity through multiple approaches:

- Providing innovative ideas to customers for improving beneficiary health and managing costs of obesity

- Allowing customizable benefits structures for employer customers that include integrated or well coordinated health promotion and wellness offerings
- Encouraging network providers to adopt best practices for preventing and medically managing obesity, including routine measurement of BMI
- Tracking and reporting to customers on physician performance in identification and medical management of obesity and surgical outcomes
- Negotiating with providers and COEs for comprehensive bariatric surgery services at the most competitive pricing
- Creating value-added opportunities for managing obesity and bariatric services that distinguish PPOs from competing plans, for example, by contracting with multidisciplinary bariatric professionals
- Encouraging patient accountability through education and plan design options, and steering members to programs with documented best outcomes
- Positioning the PPO to show expertise in assessing and implementing new bariatric product offerings that improve health and productivity outcomes.

As health care organizations dedicated to offering a high value network, PPOs can expect and should prepare for a greater demand in bariatric medical, pharmacologic and surgical care. Bariatric surgery offers the promise of improvement in health and productivity of patients. PPOs should stay ahead of this trend to ensure they are out front in promoting cost effective approaches with the best outcomes.

The PPO Best Practices for Assuring Successful Bariatric Surgery Outcomes series is supported by an educational grant from Ethicon Endo-Surgery. Ethicon Endo-Surgery, Inc. has no independent knowledge concerning the information contained in this article, and findings and conclusions expressed are those reached by the authors. AAPPO thanks the sponsor and the expert Advisory Panel members who contributed to the development of this Issue Brief. AAPPO is responsible for the content presented here, which is not intended as medical advice or clinical policy. For more information contact Liza Greenberg, RN, MPH at Lgreenberg@healthpc.org.

References

- ¹Centers for Disease Control and Prevention. OBESITY: Halting the Epidemic by Making Health Easier. At A Glance 2009. Available at: <http://www.cdc.gov/NCCdphp/publications/AAG/obesity.htm>
- ²Finkelstein EA, Trogdon JG, Cohen JW, Dietz W. Annual Medical Spending Attributable To Obesity: Payer- And Service-Specific Estimates. Health Affairs. Published online July 27, 2009. Available at: <http://content.healthaffairs.org/cgi/content/short/hlthaff.28.5.w822>
- ³NBGH Benefit Manager Guide October, 2008 "Bariatric Surgery." [Not publicly available on the web]
- ⁴Centers for Disease Control and Prevention. OBESITY: Halting the Epidemic by Making Health Easier. At A Glance 2009. Available at: <http://www.cdc.gov/NCCdphp/publications/AAG/obesity.htm>
- ⁵CDC NCHS. Prevalence of overweight, obesity and extreme obesity among adults: United States, Trends 1976-80 through 2005-06. Available at: http://www.cdc.gov/nchs/data/hestat/overweight/overweight_adult.pdf
- ⁶National Institutes of Health, National Heart, Lung, and Blood Institute. Identification, Evaluation and Treatment of Overweight and Obesity In Adults. 2000. Available at: <http://www.nhlbi.nih.gov/guidelines/obesity/practgde.htm>
- ⁷Sampsel S, May J. Assessment and Management of Obesity and Comorbid Conditions Disease Management. October 2007, 10(5): 252-265. Available at: http://orc.dmaa.org/pdf/PHM_article_1007.pdf
- ⁸Wee, CC. "A 52-Year-Old woman with obesity. A review of bariatric surgery/ JAMA, 2009. Vol 302 (10) 1097-1104 and DMAA. The Evidence Base for Effectiveness of Obesity Management Programs: A Comprehensive Review of the Literature. In DMAA Obesity Toolkit. Available at: <http://orc.dmaa.org/>
- ⁹Shekelle PG, Morton SC, Maglione M, et al. Pharmacological and Surgical Treatment of Obesity. Summary, Evidence Report/Technology Assessment: Number 103. AHRQ Publication Number 04-E028-1, July 2004. Agency for Healthcare Research and Quality, Rockville, MD. Available at: <http://www.ahrq.gov/clinic/epcsums/obesphsum.htm>
- ¹⁰National Institutes of Health, National Heart, Lung, and Blood Institute. Identification, Evaluation and Treatment of Overweight and Obesity In Adults. 2000. Available at: <http://www.nhlbi.nih.gov/guidelines/obesity/practgde.htm>
- ¹¹AACE/TOS/ASMBS. Metabolic and Bariatric Surgery Medical Guidelines for Clinical Practice for the Perioperative Nutritional and Nonsurgical Support of the Bariatric Surgery Patient. Endocrine Practice Vol 14(Suppl1) July/August 2008. Available at: <http://www.aace.com/pub/pdf/guidelines/Bariatric.pdf>
- ¹²DMAA. The Evidence Base for Effectiveness of Obesity Management Programs: A Comprehensive Review of the Literature. In DMAA Obesity Toolkit. Available at: <http://orc.dmaa.org/>
- ¹³Buchwald H, Avidor Y, Braunwald E, Jensen MD, Pories W, Fahrback K, Schoelles K. Bariatric surgery: a systematic review and meta-analysis. JAMA. 2004 Oct 13;292(14):1724-37.
- ¹⁴AACE/TOS/ASMBS. Metabolic and Bariatric Surgery Medical Guidelines for Clinical Practice for the Perioperative Nutritional and Nonsurgical Support of the Bariatric Surgery Patient. Endocrine Practice Vol 14(Suppl1) July/August 2008. Available at: <http://www.aace.com/pub/pdf/guidelines/Bariatric.pdf>
- ¹⁵AACE/TOS/ASMBS. Metabolic and Bariatric Surgery Medical Guidelines for Clinical Practice for the Perioperative Nutritional and Nonsurgical Support of the Bariatric Surgery Patient. Endocrine Practice Vol 14(Suppl1) July/August 2008. Available at: <http://www.aace.com/pub/pdf/guidelines/Bariatric.pdf>
- ¹⁶Colquitt JL, Picot J, Loveman E, Clegg AJ. Surgery for obesity. Cochrane Database Syst Rev. 2009 Apr 15;(2):CD003641.
- ¹⁷LABS Consortium, Flum, et.al. Perioperative Safety in the Longitudinal Assessment of Bariatric Surgery. NEJM 2009. July 30, Vol. 361. 445-454.
- ¹⁸Santry HP, Gillen DL, Lauderdale DS. Trends in bariatric surgical procedures. JAMA. 2005 Oct 19;294(15):1909-17.
- ¹⁹Encinosa WE, Bernard DM, Du D, Steiner CA. Recent improvements in bariatric surgery outcomes. Med Care. 2009 May;47(5):531-5.
- ²⁰Encinosa WE, Bernard DM, Du D, Steiner CA. Recent improvements in bariatric surgery outcomes. Med Care. 2009 May;47(5):531-5.
- ²¹Cremieux, PY, Buchwald H, Khikora SA et al. A Study on the Economic Impact of Bariatric Surgery. AJMC. Vol 14. No. 9. Sept. 2008. P 589-596.
- ²²Kelly JJ, Shikora S, Jones DB, Hutter MH, Robinson MK, Romanelli J, Buckley F, Lederman A, Blackburn GL, Lutz D. Best practice updates for surgical care in weight loss surgery. Obesity (Silver Spring). 2009 May;17(5):863-70. Epub 2009 Feb 19.
- ²³Bradley DW and Sharma BK. Centers of excellence in bariatric surgery: design, implementation and one year outcomes. Surgery for Obesity and related Diseases (2006) 513-517.
- ²⁴Unpublished data from Mercer National Survey of Employer-Sponsored Health Plans 2008. Summary available at <http://www.mercer.us/summary.htm?idContent=1051300> and full report available for purchase.
- ²⁵Hall MA. Health insurers' medical necessity determinations for bariatric surgery. Surg Obes Relat Dis. 2005 Mar-Apr;1(2):86-90.
- ²⁶NBGH Benefit Manager Guide October, 2008 "Bariatric Surgery." [Not publicly available on the web]
- ²⁷Tohill BC et. al. Obesity evidence-statement: screening, counseling, and treatment. In: Campbell, KP et. all editors. A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage. Washington, D.C. National Business Group on Health; 2006. Available at: http://www.businessgrouphealth.org/benefitstopics/topics/purchasers/condition_specific/evidencestatements/obesity_es.pdf
- ²⁸Encinosa, WE et.al. Use and Costs of Bariatric Surgery and Prescription Weight-Loss Medications. Health Affairs (2005). Vol 24 No. 4. 1039-1046.