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SURGERY FOR OBESITY AND RELATED DISEASES

Editorial

Unrestricted insurance access to bariatric surgery: no more excuses

I'm mad as hell and I'm not going to take it anymore.

Peter Finch speaking as Howard Beale in the movie "Network," 1976.

A recent article in the *American Journal of Managed Care* by Cremieux et al. titled "A Study on the Economic Impact of Bariatric Surgery" [1] documented the rapid increase in the rate of obesity (24%), morbid obesity (50%), and super morbid obesity (75%). The authors attempted to calculate the third-party payor return on the investment for bariatric surgery using claims data and a matched-control population for a computer model. Their conclusion assumed a bariatric surgery investment of $17,000–$26,000, with a downstream savings offsetting the initial surgery costs within 2–4 years. The study by Finkelstein and Brown [2] in 2005 stated a return on investment within 5–10 years using a simulated model.

The publications of Cremieux et al. [1] and Finkelstein and Brown [2] each make multiple assumptions concerning the economics and statistics that are far too sophisticated for me to understand and dissect. The message I took away from these studies is that at some point bariatric surgery pays for itself. It is, therefore, in the economic interest of third-party payors to include bariatric surgery as a core benefit in their insurance coverage, just as the Centers of Medicare and Medicaid Services did for Medicare in its 2006 National Coverage Determination. Reports in 2007 by Adams et al. [3] and Sjostrom et al. [4] in the "New England Journal of Medicine" have conclusively documented the long-term resolution of co-morbidities such as type 2 diabetes and heart disease and the reduction of cancer deaths and overall mortality. Their findings have also indicated an improvement in the quality of life. Given these facts, how can "core benefit" status possibly be denied to the morbidly obese? We have heard from the payors that bariatric surgery is too dangerous, does not work, and is too expensive.

Let us examine their concerns.

The Agency for Healthcare Research and Quality [5] reported a 78% reduction of operative mortality from 1999 to 2004 for bariatric surgery from a rate of .9% to .2%. Also, health grades reported a .19% 30-day mortality rate in approximately 80,000 surgeries from 2002 through 2004. The Bariatric Surgery Center of Excellence application data to the American Society for Metabolic and Bariatric Surgery/Surgical Review Corporation [6] covering 55,000 patients revealed a hospital mortality rate of .14% and a 90-day mortality rate of .34%. The mortality meta-analysis of 361 studies covering 90,567 patients by Buchwald et al. [7] showed a 30-day mortality rate of .4% and a 30-day to 2-year mortality rate of .8%. That report covered January 1990 to April 2006. Although the overall results were impressive, they were even better in the later years of the study because the use of the laparoscopic approach increased in frequency.

This mortality rate compares favorably with a mortality rate for abdominal aortic aneurysm surgery of 3.9%, coronary artery bypass grafting of 3.5%, esophagectomy of 9.1%, and pancreatectomy of 8.3% [8]. A more recent study [9] showed a mortality rate for colectomy of 4.6% and for gastrectomy of 8.4%, with little difference if the surgeon had undergone additional specialty training. The safety of bariatric surgery should no longer be an issue, because it has proved itself to be, essentially, the safest major intra-abdominal procedure done today.

The next issue payors have raised concerns the weight loss results and resolution of co-morbidities. Numerous publications have confirmed the long-term benefits of bariatric surgery. The landmark study in 1995 by Pores et al. [10] established the dramatic resolution of type 2 diabetes after gastric bypass. Christou et al. [11] in 2004 showed a mortality rate reduction from 6.17% to 0.68% in the patients undergoing surgery compared with the controls. This was with a sustained loss of excess weight of 61.7% and a 400% reduction in the incidence of new cancer cases (8.49% versus 2.03%), as well as a 45% reduction in overall medical costs. The meta-analysis published in the "Journal of the American Medical Association" by Buchwald et al. [12] in 2004 demonstrated the complexity-related differences among the restrictive, combined, and malabsorptive operations in terms of the weight loss, mortality, and resolution of co-morbidities. A significant message is that all these procedures brought about the resolution of co-morbidities at rate never before seen as a result of both weight loss and factors thought to be independent of weight loss [4]. In the

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"New England Journal of Medicine," Adams et al. [3] reported on a group of Utah gastric bypass patients and matched controls and showed an overall decrease in the mortality rate of 60%. Individual co-morbidities, including type 2 diabetes (92%), coronary heart disease (56%), and cancer (60%), showed reductions in mortality. Other co-morbidities, not already alluded to, have demonstrated similar dramatic improvements, such as obstructive sleep apnea, high blood pressure, and hyperlipidemia, as well as improvements in quality of life from such maladies as arthritis, polycystic ovarian syndrome, urinary incontinence, and menstrual irregularities.

Bariatric surgery has proved itself safe and effective beyond any reasonable criteria.

Now, let us examine the real issue—cost. I will attempt to do this without mentioning third-party payors' billion dollar profits and their executives' tens-of-million dollar salaries.

A benchmark for cost-effectiveness has been $50,000 for each added quality-adjusted life year. The benchmark has recently been recalculated to $129,000 per year for each quality-adjusted life year [13].

One item that Cremieux et al. [1] and Finkelstein and Brown [2] agreed on, regardless of the nuances of the computer models and the assumptions made, is that bariatric surgery pays for itself. This is a standard to which no other medical treatment has ever been held.

Type 2 diabetes mellitus is the most rapidly increasing chronic disease in the world. By 2025, it has been predicted that 380 million people will have been diagnosed with diabetes mellitus and 409 million will have prediabetes worldwide. In the United States alone, currently 24.1 million people have been diagnosed with diabetes and 57 million have prediabetes, an increase of 3 million within the past 2 years [14]. It is known that microvascular changes begin in the prediabetic state and that the cost of care increases by >$1200/annum for each of the 8 years before the diagnosis of diabetes [15]. The cost of care per year of diabetes mellitus varies from the American Diabetes Association's estimate [16] of $11,744 to the Unum Group's estimate [17] of $33,495. The actual mortality of type 2 diabetes is difficult to obtain because of the many ways it has been expressed. Zhou et al. [18] estimated a 10-year mortality rate of 51%, with an incidence of stroke of 18%, myocardial infarction of 19%, end-stage renal disease of 3%, neuropathy of 52%, and amputation of 5%. Regardless of the actual numbers, the cost in quality and quantity of life, as well as the economic effect, is staggering and not sustainable, because the incidence of diabetes continues to increase rapidly.

The effect of bariatric surgery on this single co-morbidity is impressive. Given that the long-term remission rate of diabetes is 50–95%, depending on the type of surgery and that bariatric surgery actually pays for itself within a few years, we could see a major beneficial effect on healthcare costs—provided that access issues allow more than the current 1% of eligible patients to undergo surgery. I believe that bariatric surgery and the patients it treats have been subjected to discrimination and denied access to proved therapy at levels unprecedented in modern times. It has occurred without major resistance, because people of weight face discrimination even by others with the same disease. This level of discrimination has been shown to be as strong as that directed against race and gender, neither of which are currently tolerated by society [19].

Now that bariatric surgery has been proved to be safe and effective and to pay for itself, third-party payors have no reason to continue their discriminatory behavior toward the obese. Bariatric surgery must immediately be included as a core benefit in all health insurance plans. No medical, moral, or economic justification exists to do otherwise.

Having demonstrated the quality, safety, and cost-effectiveness of bariatric surgery, now is not a time to relax our efforts. We must drill down on any and all adverse events to make the surgery even safer. We must investigate how bariatric surgery reverses co-morbidities so that these effects can be delivered in a less-invasive way, even if it no longer requires surgical intervention. We must organize "people of weight" to exert their sociopolitical influence to ensure that they can receive the care they need and deserve within the benefits of standard medical insurance policies.

On a personal note, we in bariatric surgery and our allied health colleagues are the missing link. We know the benefits of significant sustained weight loss as do no others, except for our grateful patients. It must be our mission to convince society that "business as usual" is unacceptable. We need a long-term, well-funded strategy to slow and ultimately reverse the obesity epidemic if our culture is to survive.

Yes, I am still mad. Patients deserve better, much better.

Disclosures

The author claims no commercial associations that might be a conflict of interest in relation to this article.

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