

Risks of Bariatric Surgery

Rates of obesity are reaching unprecedented levels—more than one-third of US adults were obese in 2005-2006 (Centers for Disease Control & Prevention), and as a result, the numbers of patients undergoing bariatric surgery have increased dramatically.¹ According to the American Society for Bariatric Surgery, approximately 170,000 of these procedures were performed in 2005 up from fewer than 20,000 in 1998.

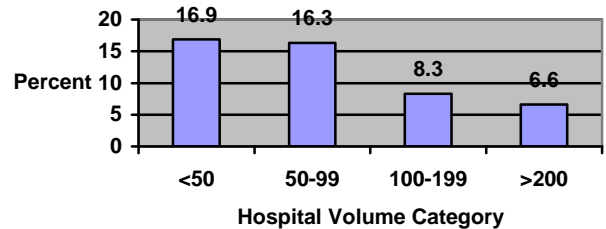
While very effective in helping patients to lose weight, bariatric surgery has substantial risks. Most studies report peri-operative mortality rates of well below 1%. However, serious complications are not uncommon with most studies reporting in-hospital morbidity rates 10-20% for bariatric surgery patients. In addition, more than a quarter of bariatric surgery patients are readmitted for treatment of a complication within three years of surgery.²

Variation in the Outcomes of Bariatric Surgery

The outcomes of bariatric surgery vary widely across hospitals and surgeons. For this reason, there is growing interest in public reporting of the outcomes for individual providers of bariatric surgery. Unfortunately, the clinical data required to report on outcomes directly are not currently available. Therefore, information that is available and that we know to be correlated with outcomes can be used to help patients choose where to undergo bariatric surgery.

Similar to many high-risk surgeries, procedure volume, or the number of surgeries that a particular hospital performs, has been shown in most studies to be an important correlate of the outcomes of bariatric surgery.^{2-7,10} For example, in one study the rates of serious complications, including life threatening cardiac, respiratory, or medical events was 4.1% if less than 150 surgical cases and 2.3% if more than 300 surgical cases at the hospital level.¹¹

Figure. Risk of Serious Complications with Bariatric Surgery by Hospital Procedure Volume in California from 1996-2000.³



Potential Benefits of Hospital and Surgeon Volume Standards

If all of the 170,000 bariatric surgery patients were to receive surgery in hospitals that perform at least 125 bariatric procedures annually, more than 3,000 serious complications would be avoided each year. In addition to the benefits measured in terms of reduced patient suffering, reducing the numbers of bariatric complications would result in substantial financial savings. By one estimate, healthcare payments exceed \$65,000 for patients readmitted for complications in the 6 months following bariatric surgery compared to about \$25,000 for those who do not have complications.⁸

The Leapfrog Volume Standards for Bariatric Surgery

Under the advisement of national experts in bariatric surgery and quality improvement, The Leapfrog Group has adopted the following volume standards for bariatric surgery. Given recent research^{10,11} indicating that being deemed a Center of Excellence does not result in lower complication rates, Leapfrog did not approve a standard that included the designation as a Center of Excellence.

Rating	Standard
Fully meets standards	Annual hospital volume ≥ 125 and participates in ACS NSQIP, ACS database, or SRC's B.O.L.D.
Some progress towards standards	Annual hospital volume ≥ 125 –or– participates in

Bariatric Surgery

Rating	Standard
	ACS NSQIP, ACS database, or SRC's B.O.L.D.
Willing to Report	Reports to Leapfrog
Exempt	New (<2 years) bariatric programs

It is anticipated that the volume standard will rise to reflect the most current volume information¹¹ on complications in the 2012 survey.

Challenges

Most hospitals do not meet these volume standards for bariatric surgery.⁹ While, high volume hospitals should be able to absorb the relatively minor increase in case loads that minimum volume standards would bring about, it is unknown what kind of geographic barriers there would be to regionalizing bariatric surgery. We exempt new bariatric programs from the standards in order to allow time for these programs' volumes to stabilize as they become established.

References

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¹¹ Birkmeyer, N. Dimick, J. et al. "Hospital Complication Rates With Bariatric Surgery in Michigan." *JAMA*; Vol. 304 No. 4, July 28, 2010.

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