Weighing In on Bariatric Surgery

Procedure Use, Readmission Rates, and Mortality

Bruce M. Wolfe, MD
John M. Morton, MD, MPH

IN RECENT YEARS, THERE HAS BEEN A DRAMATIC INCREASE in the number of bariatric surgical procedures performed in the United States and worldwide.[1-4] This in-

dren,[5] suggesting that the epidemic will worsen before it improves. Furthermore, it is estimated that at least 5% of the adult population in the United States experiences severe obesity, defined as a body mass index (BMI) greater than 40.[5]

Second, multiple epidemiologic studies have demonstrated that increasing BMI is a causative factor in many life-

FLUM JAMA 2005, 4.6% 1 YEAR MORTALITY

These studies demonstrate that there are vulnerable patient populations and potential additional costs associated with surgery but suggest that surgical volume helps mitigate these risks and costs," wrote Bruce M. Wolfe, M.D., of Oregon Health & Sciences University in Portland and John M. Morton, M.D., M.P.H., of Stanford in an accompanying editorial.

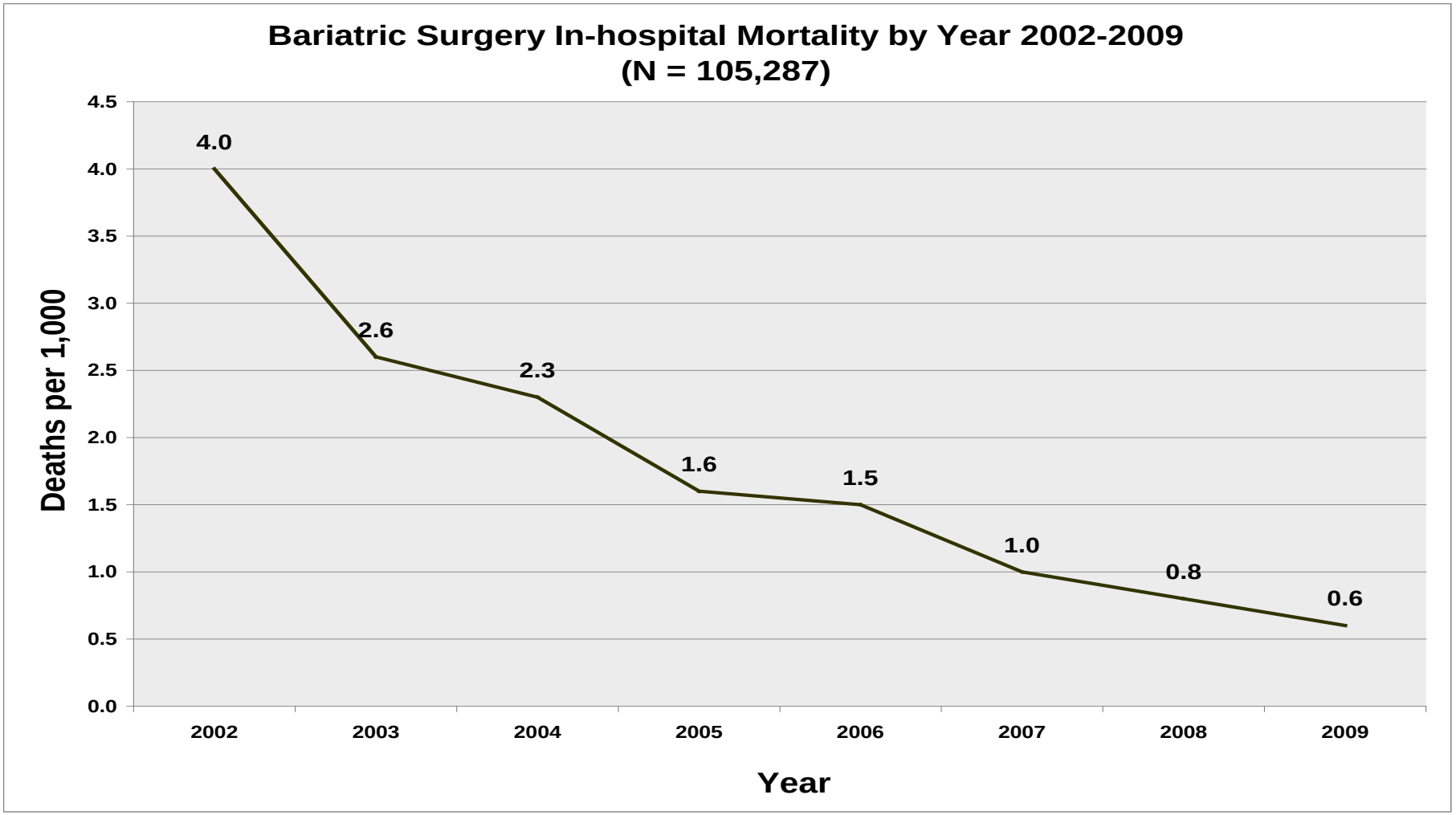
"Bariatric surgery may be a potentially life-saving intervention in the **right patients and in the right surgeons' hands**," they added. "The studies presented in this issue indicate that experience and technique count."

JAMA, 294(15), 1960-1963, 2005

Disclosures

- ASMBS Chairman General and Foregut Surgery and Membership Committees (mild)
- American Society for Metabolic and Bariatric Surgery Disclosures:
  - Ethicon - Educational Grant – Major
  - Medtronic – Educational Grant – Major
  - Apollo Endosurgery – Educational Grant – Major
  - W.L. Gore -Educational Grant – Major
  - Olympus – Educational Grant – Major
  - NovoNordisk – Educational Grant – Major
  - Bariatric Advantage - Meeting Sponsorships – Major
  - KVK Tech – Meeting Sponsorships – Major
  - Karl Storz – Meeting Sponsorships – Minor
  - USGI – Meeting Sponsorships – Minor
  - ConMed – Meeting Sponsorships – Minor
  - Mederi – Meeting Sponsorships – Minor

BARIATRIC SURGERY: AMERICAN SURGICAL SUCCESS STORY



Nguyen et al. SOARD 2012

In-Patient Outcomes
Morton, Ann Surg 2014

	Unaccredited	Accredited	P value
Total charges (mean), $	51,189	42,212	<0.0001
Any complication, %	12.3	11.3	0.001
Mortality, %	0.13	0.07	0.019
FTR, %	0.97	0.55	0.046

Life | Tue Aug 2, 2016 10:41am EDT

Related: HEALTH

For obesity surgery, consider accredited centers

BYCAROLYN CRIST

(Reuters Health) - Patients have better weight loss surgery outcomes in accredited centers, a review of past studies has found.

BREAKINGVIEWS

Bariatric Surgery Outcomes in US Accredited vs Non-Accredited Centers: A Systematic Review

Dan Azagury, MD, John M Morton, MD, MPH, FACS, FASMBS

RESULTS: Thirteen studies were published in a very short time frame and covered >1.5 million patients. Ten of the 13 studies identified a substantial benefit of Center of Excellence accreditation for risk-adjusted outcomes. Six of the 8 studies reported a considerable reduction in mortality in patients operated on in Centers of Excellence, with odds ratios ranging from 2.26 to 3.57 for non-accredited centers; 2 studies showed no significant difference. Similarly, morbidity was reduced in 8 of 11 studies, although more discreetly, with odds ratios ranging from 1.09 to 1.39.

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MBSAQIP Accreditation Required

- **Blue Cross Centers of Distinction**
- **Aetna Institutes of Quality**
- **United/Optum Centers of Excellence**
- **Cigna Bariatric Centers of Excellence**

BlueCross BlueShield

Bariatric Centers of Excellence Network

UnitedHealthcare

aetna®

CIGNA JPMC Bariatric Centers of Excellence

CIGNA

SAR Summary Data for Cases in CY2016

30-day Mortality Snapshot – All Cases

Number of Sites	Total Cases	Death Cases	Mortality Rate (%)	Mean Site Mortality Rate (%)
783	185883	207	0.1114	0.1176

- **E**mploying **N**ew **E**nhanced **R**ecovery **G**oals in Bariatric Surger**Y**
- MBSAQIP's second nation-wide quality improvement project

- An Enhanced Recovery pathway aims to treat pain and nausea from surgery and decrease the use of narcotic pain medicine.

- Site selection:
  - Invitations were extended to 80 MBSAQIP centers who were high outliers for Extended Length of Stay (ENLOS), defined as a post-op LOS ≥ 4 days in **both** 2014 and 2015
  - **37** centers currently enrolled in the project
- Fulfills requirement for Standard 7.2 – Quality Improvement Process for two years

BEYOND MORTALITY

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Rehospitalizations among Patients in the Medicare Fee-for-Service Program

Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D., and Eric A. Coleman, M.D., M.P.H.

We estimate that the cost to Medicare of unplanned rehospitalizations in 2004 was $17.4 billion.

90% Unplanned Readmissions

22.4 % of Conditions at Index Discharge Surgical

Decreasing Readmissions through Opportunities Provided (*DROP)*: The First National Quality Improvement Collaborative from the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (*MBSAQIP*)

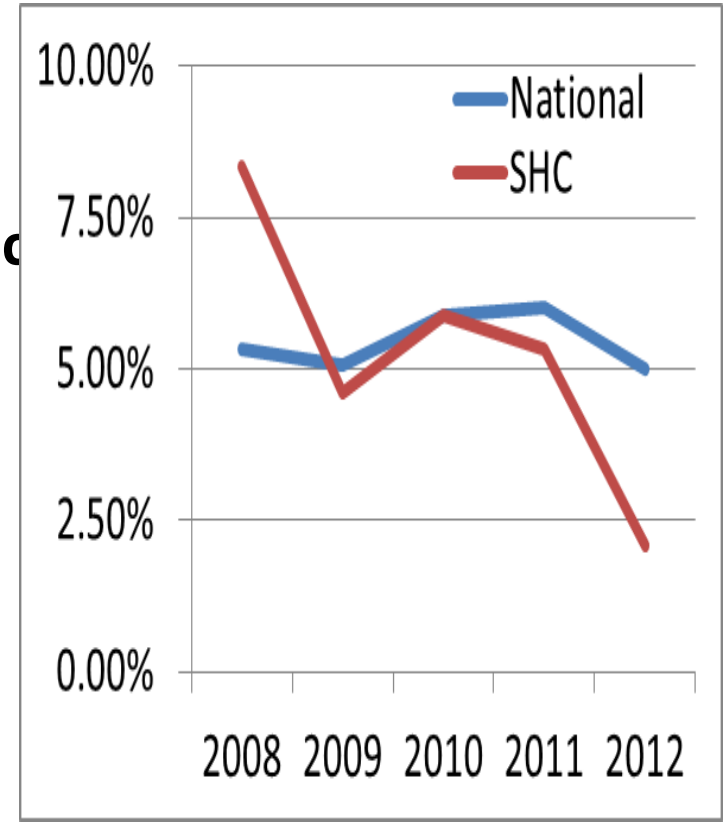
John Morton MD, MPH; Stacy Brethauer MD;
Teresa Fraker RN, Jennifer Bradford MFA,
Kristopher Huffman MS, Elizabeth Berger MD,
Anthony Petrick MD, Cliff Ko MD

Bariatric Surgery Pilot Study: *Actions Reducing Re-admissions*

8 to 2.5 %
69% Reduction

Goal: Reduce re-admissions for complications within 30 days to remain below national average.

- **Improved patient education/ discharge planning**
- **Provided direct phone numbers**
- **BMI Clinic RN calls each pt day s/p dc**
- **Same day appointments now available for concerns**
- **Using Clinical Decision Unit for 23 hour stays**



Original article

A postoperative nutritional consult improves bariatric surgery outcomes

Trit Garg, B.A., Kristine Birge, R.D., Ulysses Rosas, B.A., Dan Azagury, M.D., Homero Rivas, M.D., John M. Morton, M.D., M.P.H.*

Table 3
Incidence of postoperative complications and readmissions

Characteristic	Surgeon alone	Surgeon + dietician	*P* value
Readmissions, n (%)			
All	18 (6.0)	12 (4.6)	.57
Diet-related	9 (3.0)	0 (0.0)	<.001
Complications, n (%)			
All	33 (10.9)	24 (9.0)	.43
Major	17 (6.0)	18 (6.9)	.66
Minor	16 (5.6)	6 (2.4)	.08
Diet-related	6 (2.0)	3 (1.1)	.51
12-mo changes			
Thiamine	−18.5 ± 71.3	7.5 ± 85.2	.04

Methods

- **Setting: 128 Representative Hospitals**
- **Piloted in 5 centers**
- **Time Period: April 2015-March 2016**

<u>Interventions:</u>

- **14 Webinars**
- **In Person Meetings @ Obesity Week 2015 & Obesity WE 2016**
- **MBSAQIP QI Cmte Mentor Assigned to Each Center for Monthly Phone Calls**
- **Site Specific Reports for Benchmarking**
- **Readmission Bundle**

D.R.O.P. Re-Admission Bundle

1 Preoperative

- Education Video
- Postop Prescription
- Postop Visit Scheduled
- On-Call & Clinic Phone Numbers Given to the Patient

2 Inpatient

- Clinical Roadmap Implementation
- Nutritional Consult Completed
- Discharge Checklist Completed

3 Postoperative

- Discharge Phone Call
- Postop Visit with Surgeon and Nutritionist w/I 30 days
- Referring MD Letter Sent
- Monthly Readmissions Review

4 Data Registry

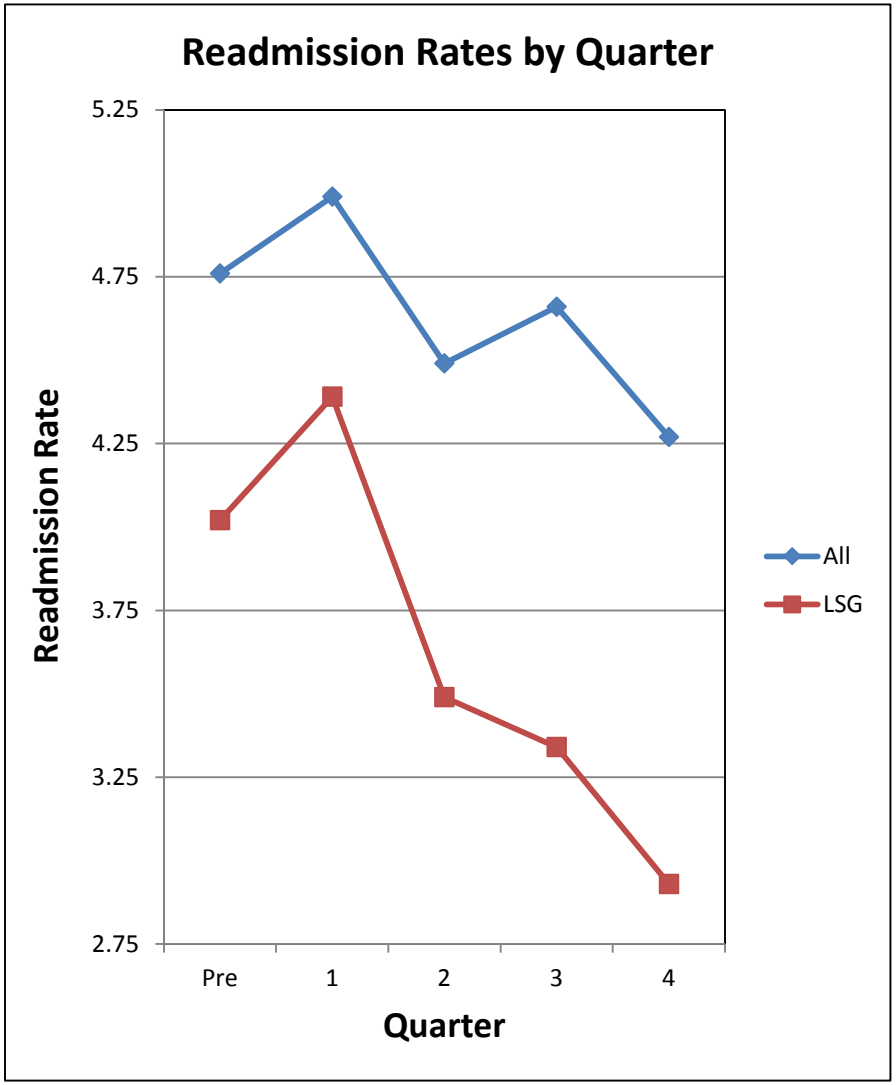
* Custom Fields

Results: Readmissions <24 Hours

	DROP Intervention							
Procedure	LAGB		LRYGB		LSG		All	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Cases	1592	1028	10255	10638	18230	22358	30077	34024
Cases with Readmission < 24 hrs	11	8	175	185	195	194	381	387
Readmisson Rate	0.69	0.78	1.71	1.74	1.07	0.87	1.27	1.14
Percent Change		13.04		1.75		-18.69		-10.24
Chisq P-Value		0.8		0.86		0.04		0.13

Overall Reduction, 10.24%
Sleeve Reduction, 18.69%

Any Readmission By Quarter Acceleration of Change



LSG				
Quarter	**Cases**	**Rate**	**% Change**	**P**
Pre	18230	4.02	-	-
1	5416	4.39	9.20	0.22
2	5731	3.49	-13.18	0.07
3	5953	3.34	-16.92	0.02
4	5258	2.93	-27.11	0.0003