Dear Colleagues,

We are pleased to share the 2017 quality outcomes for the Summa Health Bariatric Care Center, a critical component of Summa Health’s Weight Management Institute. As you know, the pace at which obesity rates are growing has become one of the greatest public health challenges of our time. Today, more than two-thirds of U.S. adults are considered overweight or obese, and obesity is ranked the second-highest cause of preventable deaths in the country.

To help reverse this obesity epidemic, Summa is committed to offering both surgical and nonsurgical options for medically supervised weight loss. While there is not yet agreement on a single best approach to nonsurgical weight loss management, there is consensus that the most effective and long-lasting treatment for morbid obesity is surgical weight loss intervention.

Since starting the Bariatric Care Center surgical program in 2004, we have performed more than 3,600 primary and revisional weight loss surgeries, with 405 primary weight loss surgeries in 2017 alone. Moreover, in the past 10 years, the Summa Health Bariatric Care Center has grown by nearly 200%.

Moving forward, weight loss management will continue to be a critical initiative for Summa Health. In 2018, a tremendous amount of work has transpired to expand treatment options that produce the best possible outcomes for our current and future patients. As always, our goal is to help these patients achieve significant weight loss in order to eliminate or reduce medical problems caused by their obesity, as well as reclaim their lives.

We appreciate you taking the time to review our 2017 results. As you’ll see, the Summa Health Bariatric Care Center offers a successful program for any patient interested in losing weight. Therefore, please do not hesitate to contact us directly if you have questions or would like additional information for your patients.

Sincerely,

John Zografakis, M.D., FACS, FASMBS
Director, Bariatric Care Center

Adrian Dan, M.D., FACS, FASMBS
Director, Bariatric Care Center

“The surgery is totally worth it. I wouldn’t go to any place except Summa Health.”

Margo Haren, Weight Loss Surgery Patient
Surgical Procedure Volume

Volume

Surgical weight loss procedures performed at Summa Health include laparoscopic Roux-en-Y gastric bypass, laparoscopic sleeve gastrectomy, laparoscopic adjustable gastric banding and laparoscopic revisional procedures. Our bariatric surgeons are fellowship-trained in advanced laparoscopic and weight loss surgery. Some procedures can be done using a single incision or robotic-assisted approach.

Procedure Totals

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Summa Health’s Bariatric Care Center Percentage</th>
<th>National Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roux-en-Y Gastric Bypass</td>
<td>0.000%</td>
<td>0.200%</td>
</tr>
<tr>
<td>Sleeve Gastrectomy</td>
<td>0.000%</td>
<td>0.100%</td>
</tr>
</tbody>
</table>

30-day Mortality

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Summa Health’s Bariatric Care Center Number of Days</th>
<th>National Average Number of Days*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roux-en-Y Gastric Bypass</td>
<td>2.06</td>
<td>2.40</td>
</tr>
<tr>
<td>Sleeve Gastrectomy</td>
<td>1.11</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Average Length of Stay

Revisions

Our bariatric care team collects and monitors quality of care data and works continuously to refine and improve its processes and program to make sure each patient receives the highest level of care.

Summa Health’s Bariatric Care Center is a MBSAQIP Accredited – Comprehensive Center. MBSAQIP works to advance safe, high-quality care for bariatric surgery patients through the accreditation of bariatric surgical centers.

A bariatric surgical center achieves accreditation following a rigorous review process during which it proves that it can maintain certain physical resources, human resources and standards of practice.
"I used to be very limited, but now I can do anything."
Gary Jentes, Weight Loss Surgery Patient

Demographics
Candidates for a primary weight loss procedure at Summa Health range in ages from 17 to 70. These are patients with morbid obesity, with or without comorbid diseases such as type 2 diabetes, obstructive sleep apnea, hypertension and gastroesophageal reflux disease. The typical patient has usually tried many different approaches to weight loss but has been unsuccessful in sustaining weight loss. In many cases, patients also struggle with underlying issues such as binge eating, emotional eating or other behavioral health conditions which have contributed to their obesity.

- Age
  - <20: 11 (.39%)
  - 20-29: 218 (6.7%)
  - 30-39: 693 (21.3%)
  - 40-49: 838 (25.7%)
  - 50-59: 869 (26.6%)
  - 60-69: 546 (16.7%)
  - 70-79: 86 (2.6%)
  - ≥80: 11 (0.3%)
  - Average Age: 47 years

- Gender
  - Male: 655 (20%)
  - Female: 2,606 (80%)

- Race
  - Caucasian: 2,798 (86%)
  - African-American: 412 (13%)
  - Hispanic/Other: 51 (2%)

- BMI
  - <30: 1,870 (59.0%)
  - 30-39.9: 231 (11.1%)
  - 40-49.9: 1,681 (51.5%)
  - 50-59.9: 851 (26.1%)
  - 60-64.9: 357 (10.9%)
  - ≥65: 11 (0.3%)
  - Average BMI: 48.07 kg/m²
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Bariatric Care Center

“...on my health. Now I feel liberated.”
Jim Sommers, Weight Loss Surgery Patient

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2017 Outcomes Report

Surgical Percentage of Excess Body Weight Loss

Laparoscopic Roux-en-Y Bypass
The average percentage of excess body weight loss as a result of laparoscopic Roux-en-Y bypass is 64% after three years.

Laparoscopic Sleeve Gastrectomy
The average percentage of excess body weight lost as a result of a laparoscopic sleeve gastrectomy as a primary weight loss procedure is 49% after three years.

Laparoscopic Adjustable Gastric Band
The average percentage of excess body weight loss as a result of an adjustable gastric band is 42% after three years.

Long-term weight loss for patients with diabetes using a nonsurgical, conservative weight loss method is 6% at one year and 4% at three years.

1 Beginning in 2010, the laparoscopic sleeve gastrectomy was performed as a primary weight loss surgery and as the first step in a staged procedure leading to a roux-en-y gastric bypass.

Surgical Comorbidity Resolution

Type 2 Diabetes Mellitus
1,003 of 3,261 (31%) patients undergoing weight loss surgery had type 2 diabetes preoperatively.

Following weight loss surgery:
• 64% of patients have complete resolution of type 2 diabetes.
• 82% of patients experienced resolution and/or improvement of their type 2 diabetes.

Five years post-operatively:
• 77% of patients experienced resolution and/or improvement of their type 2 diabetes.

Hypertension
1,913 of 3,261 (56%) patients undergoing weight loss surgery had hypertension preoperatively.

Following weight loss surgery:
• 47% of patients have complete resolution of their hypertension.
• 70% of patients experienced resolution and/or improvement of their hypertension.

Five years post-operatively:
• 74% of patients experienced resolution and/or improvement of their hypertension.

Obstructive Sleep Apnea
1,862 of 3,261 (58%) patients undergoing weight loss surgery had obstructive sleep apnea preoperatively.

Following weight loss surgery:
Two years post-operatively:
• 71% of patients experienced complete resolution of their obstructive sleep apnea.

Five years post-operatively:
• 80% of patients experienced resolution of their obstructive sleep apnea.

Gastroesophageal Reflux Disease
1,714 of 3,261 (53%) patients undergoing weight loss surgery had gastroesophageal reflux disease preoperatively.

Following weight loss surgery:
Two years post-operatively:
• 55% of patients experienced complete resolution of their gastroesophageal reflux disease.

Five years post-operatively:
• 64% of patients experienced resolution of their gastroesophageal reflux disease.

Hypertriglyceridemia
1,019 of 3,261 (31%) patients undergoing weight loss surgery had hypertriglyceridemia preoperatively.

Following weight loss surgery:
Two years post-operatively:
• 53% of patients experienced complete resolution of their hypertriglyceridemia.

Five years post-operatively:
• 64% of patients experienced resolution of their hypertriglyceridemia.
Fellowship Training

Fellowship training offers physicians the opportunity to obtain additional, specialty-focused education after the completion of residency training. The ability of a hospital to provide care by fellowship trained physicians is a strong indicator of a higher level of care. Completion of a fellowship means a surgeon has spent additional time developing in-depth knowledge and surgical expertise in their chosen specialty.

Summa Health offers a one-year fellowship in minimally invasive surgery with a focus on advanced laparoscopic and weight reductive surgery. It is a collaborative effort between the department of surgery and Summa Health Foundation. The fellow works closely with the four attending surgeons in our bariatric surgery program, performing high volumes of minimally invasive weight reductive and general surgeries. The fellow also works with the Bariatric Care Center team, developing expertise in the clinical management of patients.

This fellowship is now in its eighth year, having started in 2011. It is accredited by the MIS Fellowship Council for dual Minimally Invasive Surgery (MIS) and Bariatric Surgery. It is led by fellowship program director, Adrian G. Dan, M.D., FACS, FASMBS.

All four of the surgeons at Summa’s Bariatric Care Center are fellowship trained as follows:

- John G. Zogafakis, M.D., FACS, FASMBS: Evanston Northwestern Healthcare
- Adrian G. Dan, M.D., FACS, FASMBS: Cleveland Clinic Foundation
- Mark Pozsgay, D.O., FASMBS: University of Pittsburgh Medical Center
- Tyler Bedford, M.D.: Summa Health

Our Fellows:

- Tyler Bedford, M.D.: 2016-2017
- Lindsey Berbiglia, M.D.: 2015-2016
- Kristine Makiewicz, M.D.: 2017-2018
- Andrew Standerwick, M.D.: 2012-2013
The program offers several nonsurgical weight loss options depending on a patient’s need:

**Comprehensive Two-Year Program**
- Six months of physician visits
- A foundational Kick-Off Workshop
- Three Intensive Outpatient Weight Loss Groups
- Ongoing physician follow-ups for meal planning

**Individual Physician Visits Specializing in Weight Loss**
- For patients who:
  - Don’t have time for the full program
  - Only want the physician component
  - Are looking primarily for individualized meal planning
  - May have more complicated medical conditions, such as diabetes

**Individual Psychologist Visits Specializing in Weight Loss & Eating Disorders**
- For patients who:
  - Don’t have time for the full program
  - Only want the behavioral component
  - Struggle with eating in response to emotions or stress
  - Struggle with depression and anxiety

Unlike others in the area, the Summa nonsurgical weight management program is led by a multidisciplinary team that includes physicians, psychologists, dietitians and clinical exercise specialists. These professionals guide and educate patients throughout their weight loss journey, from setting realistic and achievable short- and long-term goals to ensuring they stay on track and remain successful.

**Outcomes**
Patients who fully participate in our program typically achieve a weight loss of five to 20 pounds per month. Success is directly related to how closely they follow the prescribed program.

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"They counsel you on how to eat healthy. I am about to change my life."
Reggie Eggleston, Weight Loss Surgery (pre-op) Patient
Research and Education

Research is an integral component of a large, quality focused program. Summa contributed to research regarding surgical weight loss intervention as follows:

Invited Lectures
- "Emergent Surgical Care of the Bariatric Surgical Patient for the General Surgeon"; Ohio Chapter, American College of Surgeons, May 2014.
- "Metabolic Surgery"; Grand Rounds, Department of Obstetrics and Gynecology, Summa Akron City Hospital, Summa Health System, August 2014.
- "The Emergency Department Evaluation of the Weight Loss Surgery Patient."; Grand Rounds, Department of Emergency Medicine, Summa Akron City Hospital, Summa Health System, March 19, 2013.
- "Evaluation and Management of the Weight Loss Surgery Patient"; Northeast Ohio Medical University (NEOMED), February 28, 2012.
- "Common Questions in the Office: The Postoperative Management of the Weight Loss Surgery Patient"; ASMBS, Ohio State Chapter Meeting 2012; May 11, 2012, Columbus, OH.

Publications
- Dan AG, Mirhaidari S, Pozsgay M, Standreiber AB, Bohon AN, Zografakis JG; Two-Trocar Cholecystectomy by Strategic Laparoscopy for Improved Cosmesis: Accepted in 2012 for publication in JSLTS, Journal of the Society of Laparoendoscopic Surgeons.

Poster Presentations
- Pasini D, Hanna E, Hawk K, Zografakis JG, Dan AG, Pozsgay M; "Case Management of Bariatric Surgical Patients Results in Improved Patient Satisfaction Scores"; Poster Presentation; OHA Quality Institute's 6th Annual Quality Summit, Columbus, OH, June 2013.
- Yoho D, Pozsgay M, Zografakis JG; "Removing the "Bag From Our Bag of Tricks; A Paradigm Shift in the Surgical Management of Acute Pancreatitis", Poster Presentation; Presented at the Twenty-First Annual Summa Health System Postgraduate Day, June 3, 2013.

Book Chapters

Book Editor

Awards
- Subichin M, Clanton J, Maliszewski M, Bohon A, Zografakis JG, Dan AG; "Body Mass Index and Age do not Influence Severity of Liver Disease: A Review of 1,000 Consecutive Patients Undergoing Weight Loss Surgery"; Pathological findings of intra-operative liver tissue biopsy in patients undergoing weight loss operations; Presented at the Twenty Second Annual Summa Health System Postgraduate Day, June 2, 2014.

Appointments
- 2014 Zografakis JG; Vice President; Ohio Chapter of the American Society of Metabolic and Bariatric Surgery.
- 2013 Zografakis JG; Secretary; Ohio Chapter of the American Society of Metabolic and Bariatric Surgery.
- 2012 Zografakis JG; Secretary; Ohio Chapter of the American Society of Metabolic and Bariatric Surgery.
- 2011 Zografakis JG; Vice President; Ohio Chapter of the American Society of Metabolic and Bariatric Surgery.
- 2010 Zografakis JG; President; Ohio Chapter of the American Society of Metabolic and Bariatric Surgery.
“Dr. Pozsgay gave me my life back.”

John Konneker, Weight Loss Surgery Patient
To refer a patient or for more information, call 330.375.6590 or go to summahealth.org/weightloss

Summa Health System
Akron Campus
Bariatric Care Center

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