ASK MBSAQIP Call
Topic: Quality Improvement

Thursday, March 14, 2019 12:00 PM CST
The webinar will begin shortly...
# ASK MBSAQIP Agenda

<table>
<thead>
<tr>
<th>Time (CST)</th>
<th>Agenda Item</th>
<th>Panelist</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 Noon</td>
<td>Welcome &amp; Introductions</td>
<td>Kaynaat Syed</td>
</tr>
<tr>
<td>12:05 – 12:40 PM</td>
<td>QI Project Presentation--Manchester Memorial Hospital</td>
<td>Mark Tousignant, MD, FACS</td>
</tr>
<tr>
<td>12:40– 1:00 PM</td>
<td>MBSAQIP QI Toolkits and Updates</td>
<td>Kaynaat Syed Teresa Fraker</td>
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</tbody>
</table>
So You Have to do a QI Project?! 

Mark R. Tousignant, MD, FACS
MBS Director
Manchester Memorial Hospital, Manchester, Connecticut
Manchester Memorial Hospital--ECHN

- Established July 11, 2016
- 150 – bed Hospital
- 10 OR Suites
- Designated as Comprehensive Center on Sept. 24th, 2019

- Staffing:
  - MBS Director/Surgeon
  - MBS Clinical Reviewer
  - MBS Coordinator
  - Dietician – 0.4 FTE
  - Scheduler/Office Manager
MBSAQIP Application Overview

- Submitted initial application on March 12th, 2018
- Final application to be completed on May 12th, 2018
  - Documents that needed to be completed:
    - Section 2.1 MBS Committee
    - Section 2.2 MBS Director
    - Section 2.3 MBS Coordinator
    - Section 2.4 MBS Clinical Reviewer
    - Section 2.6 Credentialing Guidelines for Metabolic and Bariatric Surgeons
    - Section 4.4-1 Anesthesia Services
    - Section 6.1 Data Entry of All Metabolic and Bariatric Procedures and Interventions
    - **Section 7.2 Quality Improvement Process**
    - Application Data Template - completed
So the QI Project is part of the Final Application?

• Initially our team did not anticipate the QI Project to be submitted with the Final Application.

• Concerns regarding the QI Project, (at that time) included:
  • What should the QI Project look like?
    • What topics or goals should be addressed?
  • How should the QI Project be written? What format?
  • As an initial application center, where do we get the data?
  • Who should be on the QI Project team?
“Quality improvement (QI) emphasizes a continuous multidisciplinary effort to improve the process of care and its outcomes” – MBSAQIP Standards Version 2.0, Standard 7.2, “Quality Improvement Process”

• What does this mean in practice?
  1. Demonstrate the Ability to Collect Data
  2. Demonstrate the Ability to Analyze Data
  3. Demonstrate the Ability to improve/change a process
  4. Demonstrate the Ability to Track Outcomes
Data Collection

- Patient Information
  - Initial Height, Weight, BMI
  - Current Height, Weight, BMI
  - Age at time of Consultation
  - Comorbidities
    - Diabetes
    - Hypertension
  - Comorbidity Resolution
  - Excess Weight Loss Percentage

- Surgical Information
  - Date of Surgery
  - Type of Surgery
  - Length of Stay
  - Surgical Video

- Surgical Complications
  - Clavien Dindo Classification
    - Grade I through V
  - 30-Day Reoperations
  - 30-Day Readmissions
  - One-year Reoperations
  - One-Year Readmissions
  - Through put Duration
    - Info session to surgery
Data Collection

• Designate Responsibility for Data Collection
  • Designated TWO areas to collect data
    o Office – primarily by the MBS Director
      o All data points as previously shown
  • Quality Improvement Department
    o Cases performed
    o Complications
    o 30-day reoperations
    o 30-day readmissions

• Provided the ability to validate the data
Team Developed: MBS Committee Members

- MBS Director
  - Data Oversight
  - Data Analysis
  - Primary Author

- MBS Coordinator
  - Coordinator of all documentation
  - Secondary review of QI Project

- MBS Clinical Reviewer
  - Data Collection

- Quality Improvement Liaison
  - Validation of data
  - Responsible for QI Methodology

- Hospital Administration
QI Methodology?

PDCA?

DMAIC?
QI Methodology--Chosen

• Discuss with the Quality Department current methodology

• Utilized existing QI methodology format at Manchester Memorial Hospital
QI Methodology – Performance Improvement Cycle

- Utilized the Performance Improvement Cycle Documentation
- Provided a proven structure to work through the project

**PERFORMANCE IMPROVEMENT CYCLE DOCUMENTATION (Instructions)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Hospital:</td>
<td></td>
</tr>
<tr>
<td>Department:</td>
<td></td>
</tr>
<tr>
<td>Date Initiated:</td>
<td></td>
</tr>
<tr>
<td>Date of Report:</td>
<td></td>
</tr>
</tbody>
</table>

**Project Identification**

1. What do you want to improve?
2. Who are the team members?
3. Is there “Initial Data” that told you this is a problem area? [ ] Yes, [ ] No
   If Yes list the Data.
4. What goal are you trying to achieve?

**Analysis**

During the Analysis Phase you will identify what’s really happening now. Ways to analyze include using brainstorming, flow charting the process, gathering data via surveys or chart reviews, developing logs & tick sheets so that you have it.

5. Describe the current situation. (Attach data, charts, process flow, if available)
6. What does your data tell you?
7. What are the main causes for the current situation?

**Possible Solutions**

8. Can you remove time, steps, dollars?
9. Based on the analysis brainstorm with your team, a list of possible solutions.
10. Prioritize these solutions in order to create an action plan.

**Action**

11. Describe your action plan. (Who will do what, when)
12. Create a timeline/dates for implementing each step of your action plan.
13. Implement your plan.

**Check**

14. What will you measure to show you’ve met your goal, or otherwise made an improvement?

**Results**

15. Compare pre measures to post measures.
   (USE DATA TO SHOW HOW MUCH IMPROVEMENT YOU’VE MADE)

**Follow Up**

16. When will you re-measure? [ ] 2 weeks [ ] 1 month [ ] 3 months [ ] 6 months
17. How often will you re-measure? [ ]
Potential QI Projects

- Identified areas that offer opportunities for improvement
- Prioritization of areas of improvement
  - Safety and outcomes variable
    - Morbidities, reoperations, readmissions, complications, length of stay, operative time, BMI/Weight Loss Outcomes
  - Program variables
    - Follow-up compliance, through put from consultation to surgery
    - Staff Education


“... must prioritize QI initiatives related to safety and patient outcomes over internal process or patient satisfaction-related initiatives.”
Identified the data that indicate an opportunity to improve

30-Day Reoperation Rate was 3.37% in the 2017 Calendar Year
160 Primary cases--total since program inception (at the time of the QI project development)
5 Cases required surgical intervention--since program inception

Set the goal

The goal is to reduce the 30-Day Reoperation Rate to less than 2% for the 2018 Calendar Year ending December 31, 2018.

• Specific and measurable
• Includes a timeframe
Develop Problem Statement

- Extract from the project identification process
- Included
  - Identified target areas
  - Data that indicated room for improvement
  - Clear goal(s) and outcomes
  - Timeframe

1. The observed All Cause 30-Day Reoperation Rate was 3.37% in the 2017 Calendar year. Our goal is to lower the All Cause 30-Day Reoperation Rate to less than 2% by December 31, 2018.
3. Is there Initial Data that told us there was a problem in this area? Yes or No? If Yes, list the data.

There is initial data that indicated that the 30-Day Reoperation Rate would be an area to target for quality improvement. Since the start of the ECHN Center for Weight Loss on July 11, 2016, a total of 160 cases have been completed. Since the start of the program, data has been tracked independently by both the ECHN Center for Weight Loss and the ECHN Quality and Safety Department.

<table>
<thead>
<tr>
<th>DATE OF PRIMARY PROCEDURE</th>
<th>PRIMARY PROCEDURE</th>
<th>REASON FOR REOPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/8/16</td>
<td>Roux-en-Y Gastric Bypass</td>
<td>Stricture at Jejunojejunostomy</td>
</tr>
<tr>
<td>10/18/16</td>
<td>Roux-en-Y Gastric Bypass</td>
<td>Bleed from Short Gastric</td>
</tr>
<tr>
<td>5/23/17</td>
<td>Band to Gastric Bypass</td>
<td>SBO 2° to Port Site Hernia</td>
</tr>
<tr>
<td>6/5/17</td>
<td>Roux-en-Y Gastric Bypass</td>
<td>Stricture at Jejunojejunostomy</td>
</tr>
<tr>
<td>9/25/17</td>
<td>Band to Gastric Bypass</td>
<td>Retained Foreign Body (Band)</td>
</tr>
</tbody>
</table>
Project Identification

“The current running 30-Day Reoperation Rate for the ECHN Center for Weight Loss is 3.13% (5 30-day reoperation cases/160 total cases). The following is the 30-Day Reoperation breakdown per calendar year basis:”

<table>
<thead>
<tr>
<th>CALENDAR YEAR</th>
<th>30-DAY REOPERATION S</th>
<th>BYPASS AND BYPASS REVISIONS</th>
<th>SLEEVES AND SLEEVE REVISIONS</th>
<th>TOTAL NUMBER OF CASES</th>
<th>30-DAY REOPERATION RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2</td>
<td>18</td>
<td>30</td>
<td>48</td>
<td>4.17% (2/48)</td>
</tr>
<tr>
<td>2017</td>
<td>3</td>
<td>38</td>
<td>51</td>
<td>89</td>
<td>3.37% (3/89)</td>
</tr>
<tr>
<td>2018</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>12</td>
<td>0% (0/12)</td>
</tr>
</tbody>
</table>

4. What goal are we trying to achieve?

“The goal is to reduce the 30-Day Reoperation Rate to under 2.00% for the calendar year of 2018, ending December 31, 2018.”
During the Analysis Phase you will identify what’s happening now. Ways to analyze this include brainstorming, flow charting the process, gathering data via surveys or chart reviews, developing logs & tick sheets so that you have #’s.

5. Describe the current situation. (Attach data, charts, process flow, if available)
6. What does your data tell you?
7. What are the main causes for the current situation?
5. Describe the current situation.

“... Of the 5 cases, **two cases had a similar presentation**—stricture at the jejunojejunostomy causing an obstruction, leading to a reoperation.

The three other procedures that required a reoperation within 30 days of the primary procedure were from preventable causes, however, none of the three had the same root cause.”
6. What does the data tell us?

“... stricture at the level of the jejunojejunostomy resulting from the construction of the anastomosis utilizing a handle stitch to establish tension during the linear stapling accounts for 40% of all 30-Day ...”

- The 30-Day Reoperation Rate resulting from a stricture at the level of the jejunojejunostomy in 2016 was 2.08% of total cases and 5.56% of all Roux-en-Y Gastric Bypass cases.

- In 2017, the 30-Day Reoperation Rate resulting from a stricture at the level of the jejunojejunostomy was 1.12% of total cases and 2.63% of all Roux-en-Y Gastric Bypass cases.
7. What is the main cause of the current situation?

“The main cause of the current situation was the potential to easily develop a stricture at the level of the jejunojenostomy while using a handle stitch to apply tension/counter traction on both the BPD limb and the Roux limb causing the anvil of the linear stapler to drift out of the central lumen of the Roux limb.”
8. Can you remove time, steps, dollars?

9. Based on the analysis brainstorm with your team, a list of possible solutions.

10. Prioritize these solutions in order to create an action plan.

*Several possible revisions to surgical technique were considered and one was selected by the surgeon to implement.*
Develop Action Plan

11. Describe your action plan. (Who will do what, when).

12. Create a timeline/dates for implementing each step of your action plan.

13. Implement your plan.

• “Root cause was determined to be one of surgical technique, the procedure was revised to include an intraoperative evaluation. The change was initiated in June 2017.”
14. What will you measure to show you’ve met your goal, or otherwise an improvement?

15. Compare pre-measures to post measures.

“The All Cause 30-Day Reoperation Rate will continue to be measured to determine if the goal has been met or improvement made. All 30-Day Reoperations are to be reviewed by the MBS Committee to determine the root cause of the reoperation. All 30-Day Reoperations will be evaluated to determine if they were caused by the identified issue.”
16. Determine when and how often the results will be re-measured.

“Results are measured on a continual basis. All case complications are to be reported to the MBS Committee. All 30-Day Reoperations are reviewed by the MBS Committee which meets on a quarterly basis.”
Takeaways

- Develop a Project with:
  - Identify Clear target areas
  - Data that indicated room for improvement
  - Clear goal(s) and outcomes
  - Timeframe

- Create the Project Team
  - Assign roles to each member
  - Set deadlines

- Choose a QI Methodology
  - Consider using an your hospitals existing QI Methodology if one exists

- Embrace the QI Project as an opportunity to let your program shine.
- Partner with MBSAQIP to assist you in your QI efforts, if needed
Questions?
Share your QI Projects!

Email: mbsaqipquality@facs.org
MBSAQIP QI Toolkits

- 30-Day Readmission
- Surgical Site Infection (SSI)
- Urinary Tract Infection (UTI)
### Surgical Site Infection (SSI) Toolkit Summary

<table>
<thead>
<tr>
<th>1 Smoking Cessation</th>
<th>2 Glucose Control</th>
<th>3 Preoperative Bathing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interventions such as patient education, coaching, and nicotine medications for current smokers as early as possible following decision to schedule surgery.</td>
<td></td>
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</tr>
<tr>
<td>Target blood glucose levels of 110–150 mg/dl suggested.</td>
<td></td>
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</tr>
<tr>
<td>Chlorhexidine bathing as part of an institutional SSI prevention bundle reduces SSI risk.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>4 Skin Preparation</th>
<th>5 Prophylactic Antibiotics</th>
<th>6 Limited OR Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use alcohol-based solutions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove hair if necessary only with clippers as close to prep time as possible.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not shave the surgical site abdomen in the preoperative area or the OR.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administered within one hour of incision.</td>
<td></td>
<td></td>
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<tr>
<td>Weight-adjusted dosing recommended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choice of prophylactic antibiotic based on surgical procedure and the anticipated pathogens.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimize traffic and distractions in operating room.</td>
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</tbody>
</table>
Decreasing Surgical Site Infections

https://facs.wistia.com/medias/qk4x58ipoi
Case Study

Decreasing Surgical Site Infections (SSI)

Most common type of healthcare-related infection

50% of SSIs are preventable

Interventions

- Smoking cessation
- Optimal blood glucose levels of 110-150 mg/dl
- Preoperative bathing using Chlorhexidine wipes
- Skin preparation using alcohol-based solutions and clippers
- Prophylactic Antibiotics
- Minimize OR traffic and distractions

Registration Now Open!

ASMBS Weekend, June 20-22, 2019, is comprised of three full days of specialized surgical and integrated health courses in an intimate setting. Register online today.

This clinical symposium is designed for all professions involved in obesity prevention, treatment, and research. This year's comprehensive schedule features a special focus in robotics in bariatrics as well as...
MBSAQIP Sessions

MBSAQIP Quality Improvement 101:
An Interactive Session for Novice QI Leaders

- Thursday (6/20)
- 8:45am – 12:15pm
- Chicago Marriott
  Downtown Magnificent Mile Hotel
  Room TBA

Learning Objectives:
1) Describe the differences between PDCA and DMAIC methodologies in constructing a QI project.
2) Discuss important team dynamics & culture necessities to drive QI at the local level.
3) Describe the essential components of the MBSAQIP standard for quality improvement & the necessary components to achieve & maintain MBSAQIP Accreditation.

MBSAQIP:
Building on a Tradition of Quality

- Thursday (6/20)
- 1:15pm – 5:00pm
- Chicago Marriott
  Downtown Magnificent Mile Hotel
  Room TBA

Learning Objectives:
1) Describe the necessary components of documentation & preparing a center for a successful site visit.
2) Discuss various ideas for QI projects, pursuant to the MBSAQIP standard for quality improvement.
3) Review toolkits that assist centers in their QI projects, inclusive of surgical site infections, readmissions, & urinary tract infections.
Save the Date
July 19-22, 2019 | Washington, DC

Save the Date
July 19–22, 2019 | Washington, DC

Mark your calendars for the 2019 ACS Quality and Safety Conference, July 19–22 at the Walter E. Washington Convention Center in Washington, DC.

Questions?
Any inquiries may be directed to acsqscconference@facs.org or 312-202-5319
Thank You for attending ASK MBSAQIP!

Next ASK MBSAQIP Call: Thursday, April 11th, 2019 at Noon CST