How to Put the “Quality” in MBSAQIP Standard 7.2: “QI Initiatives”

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Getting Started!

Read Standard 7.2 carefully

7.2 Quality Improvement Initiatives

Definition and Requirements

The goal for MBSAQIP®-Accredited centers is to provide safe, effective, and high-quality care to each patient at all times. To achieve this goal, it is imperative to develop a culture of continuous improvement among all MBSQIP Committee members of the center. Quality improvement (QI) embodies a continuous, multi-disciplinary effort to improve the process of care and its outcomes. Thus, QI must be supported by a reliable method of data collection that consistently obtains valid and objective information necessary to identify opportunities for improvement at the center. The sentinel risk-adjusted reports (SAR), non-risk-adjusted reports, and other data sources (for example, patient experience scores) are valuable tools to evaluate areas for improvement for the center and must be used to identify pertinent QI initiatives.

With oversight from the MBSQIP® Committee, MBSAQIP®-Accredited centers must measure, evaluate, and improve their performance through at least one quality improvement initiative each year. The timeline for completion of each QI initiative is variable depending on the scope of the project, and must be determined by the MBSQIP® Committee. However, a new QI initiative must be implemented each year, even if a previous initiative is still underway.

Centers must adopt a consistent methodology for quality improvement initiatives. The methodology may vary from center to center depending on the unique needs and circumstances of each center; however, the methodology must be adapted to support quality improvement initiatives. Further information about QI methodologies can be found on the MBSAQIP® website, facs.org/quality-program/mbsaqip/

Renewal centers must first review their risk-adjusted and non-risk-adjusted clinical outcomes data provided by the MBSAQIP® registry to identify quality improvement initiatives, and must prioritize QI initiatives that focus on improving surgical outcomes. Centers found to be a high outlier on the sentinel risk-adjusted report (SAR) must develop a QI initiative designed to address the high outlier identified. In addition, if a center model on the sentinel risk-adjusted report (SAR), the MBSQIP Committee must prioritize these clinical issues and the non-QI initiative must address the greatest risk to patient safety. Although only one QI initiative is required each year, the MBSAQIP® encourages the use of multiple QI initiatives to address issues related to clinical outcomes and patient safety when warranted. If further investigation reveals a QI initiative addressing a high outlier status is warranted for example, concurrent data shows subsequent resolution of the issue, the center may select an alternative QI initiative driven by other data or process reviews. However, the center must provide written justification to support this decision.

Initial centers, and renewal centers that do not have a high outlier status on the sentinel risk-adjusted report (SAR), must develop quality improvement initiatives prioritizing other issues related to clinical outcomes and patient safety. If no such issues are readily identifiable, QI initiatives must target other areas for improvement, including, but not limited to: internal processes, clinical pathways, patient education, patient experience, or other relevant issues related to providing safe, efficacious, and high-quality care to metabolic and bariatric patients.

Quality Improvement Outline

These 8 steps outline the basic process for completing a quality improvement initiative that satisfies the requirements of MBSAQIP®-Accredited centers.

1. Review Data
   a. Sentinel risk-adjusted reports (SAR)
   b. Non-risk-adjusted reports
   c. Internal data

2. Identify the Problem
   a. High outlier status
   b. Other areas for improvement

3. Propose Intervention
   a. Intervening control factors
   b. Root-cause analysis

4. Choose Quality Improvement Methodology
   a. MBSAQIP®-Accredited centers are able to use any consistent quality improvement methodology that satisfies their unique needs
   b. Establish a timeline for review and metrics to track progress

5. Implement Intervention & Monitor Data
   a. Consistently implement the intervention
   b. Monitor data

6. Present Results
   a. Gather all documentation and data
   b. Review progress
   c. Summarize the findings and results of the quality improvement initiative
Standard 7.2 Verbiage

Quality Improvement Outline
These 6 steps outline the basic process for completing a quality improvement initiative that satisfies the requirements outlined above. Further information about quality improvement, including a detailed review of this 6 step process, can be found on the MBSAQIP website, facs.org/quality-programs/mbsaqip/resources.

1. Review Data
   a. Semiannual risk-adjusted reports (SAR)
   b. Non-risk-adjusted reports
   c. Internal data

2. Identify the Problem
   a. High outlier status
   b. Other areas for improvement

3. Propose Intervention
   a. Discuss contributing factors
   b. Root cause analysis

4. Choose Quality Improvement Methodology
   a. MBSAQIP-Accredited centers are able to use any consistent quality improvement methodology that satisfies their unique needs
   b. Establish a timeline for review and metrics to track progress

5. Implement Intervention & Monitor Data
   a. Consistently implement the intervention
   b. Monitor data

6. Present Results
   a. Gather all documentation and data
   b. Review progress
   c. Summarize the findings and results of the quality improvement initiative
Standard 7.2: The 5 Process Steps

1. Review Data to Identify the Problem
2. Write a Problem Statement
3. Choose & Implement Performance Improvement Methodology & Metrics
4. Implement intervention and monitor data
5. Present QI Initiative Summary
1. Review Data

2. Identify Problem

3. Propose Intervention

4. Choose PI Methodology & Metrics

5. Implement Intervention & Monitor Data

6. Present Study Results

Standard 7.2

Quality Improvement Process
Before you get started:
Assemble a CORE QI Team

- MBS Director
- MBS Coordinator
- MBS Clinical Reviewer
- Hospital QI Rep. (if available)
1. Review Data

**Data Sources**

1. SAR Site Summary Report
2. Online Benchmarking Reports
3. Internal Data (e.g., patient experience scores)
Benchmark Data

**IMPORTANT:** Dedicate time to learn about your SAR data!

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**July 2018 Semiannual Report**

The following are a list of published documents for July 2018 Semiannual Report.

- July 2018 Semiannual Report
- Model Reports
- Site List
- Powerpoint Presentation
- Site-Level QCDR Measures
- MBSAQIP Semiannual Report Supplement QCDR Measures
  - Tutorials - Interpreting the MBSAQIP SAR
  - Tutorials - Statistical Modeling
- Site Summary Report
Benchmark Data

If Outlier = “High”, then QI project required*

07/01/2012 - 06/30/2013  Semiannual Report: Site Summary

Site Number:

<table>
<thead>
<tr>
<th>Laparoscopic Sleeve Gastrectomy</th>
<th>Total</th>
<th>Observed</th>
<th>Pred**</th>
<th>Expected</th>
<th>Odds</th>
<th>C.I.***</th>
<th>Outlier</th>
<th>Decile</th>
<th>Performance*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>Events</td>
<td>Rate</td>
<td>Obs. Rate</td>
<td>Rate</td>
<td>Ratio</td>
<td>Lower</td>
<td>Upper</td>
<td></td>
</tr>
<tr>
<td>LSG All Cause Intervention</td>
<td>158</td>
<td>1</td>
<td>0.63%</td>
<td>0.65%</td>
<td>0.66%</td>
<td>0.98</td>
<td>0.29</td>
<td>3.38</td>
<td>No</td>
</tr>
<tr>
<td>LSG Related Intervention</td>
<td>158</td>
<td>1</td>
<td>0.63%</td>
<td>0.51%</td>
<td>0.44%</td>
<td>1.15</td>
<td>0.31</td>
<td>4.50</td>
<td>No</td>
</tr>
<tr>
<td>LSG All Cause Readmission</td>
<td>158</td>
<td>9</td>
<td>5.70%</td>
<td>4.14%</td>
<td>2.74%</td>
<td>1.55</td>
<td>0.87</td>
<td>2.75</td>
<td>No</td>
</tr>
<tr>
<td>LSG Related Readmission</td>
<td>158</td>
<td>8</td>
<td>5.06%</td>
<td>3.42%</td>
<td>1.81%</td>
<td>1.93</td>
<td>1.00</td>
<td>3.73</td>
<td>High</td>
</tr>
</tbody>
</table>
Benchmark Data

Drill down using Case Occurrences Report

Risk-Adjusted Case Occurrences Report

SAR Period: 07/01/2014 - 06/30/2015
Type of Model: Laparoscopic Sleeve Gastrectomy

Case Occurrences for LSG All Occurrences Morbidity
07/01/2014 - 06/30/2015

- With Complications
- Without Complications

61 Total Cases

Cases for LSG All Occurrences Morbidity

- Download Case Details Report for Selected Cases

<table>
<thead>
<tr>
<th>Case #</th>
<th>Had Occurrence</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>100491</td>
<td>yes</td>
<td>0.041667705</td>
</tr>
<tr>
<td>100567</td>
<td>yes</td>
<td>0.068598103</td>
</tr>
<tr>
<td>100467</td>
<td>no</td>
<td>0.083655062</td>
</tr>
<tr>
<td>100492</td>
<td>no</td>
<td>0.052349712</td>
</tr>
<tr>
<td>100286</td>
<td>no</td>
<td>0.029138542</td>
</tr>
<tr>
<td>100562</td>
<td>no</td>
<td>0.037829115</td>
</tr>
<tr>
<td>100503</td>
<td>no</td>
<td>0.030619193</td>
</tr>
</tbody>
</table>
Prioritize Patient Safety and Outcomes

If Outcomes Data does not reveal a problem, ask:

- Gaps in resources or care services?
- Issues regarding timeline of care?
- Gaps in patient compliance or follow-up?
- Issues related to patient satisfaction or procedure effectiveness?
- Educational gaps for patients or staff?
Write a Problem Statement

3 things that must be included in the Problem Statement:

1. Clearly identify a **specific** problem you want to solve through your QI Project.

2. Identify your baseline and goal metrics.

3. Identify the timeline for meeting this goal.
SMART

Specific
Measurable
Attainable
Relevant
Time-oriented
Our predicted (adjusted) observed rate for All Cause Readmission for LSG was 7.2% in the 2015 calendar year, which makes us a high outlier in this model. Our goal is to lower our LSG readmission rate to the expected rate of 3.72% by December 31, 2016.
Propose Intervention

- Gather all members of the MBS Committee to discuss all possible factors contributing to the problem


- May choose to implement a Root Cause Analysis tool such as “The 5 Whys”, “SIPOC”, or a “Fishbone Diagram”

- Document a plan for intervention
PI Tools and Metrics

• Choose Process Improvement (PI) Tool or standardized methodology
• Identify metrics and measurement tool
  ✓ Choose/create a measurement tool (MBSAQIP Data Registry, Survey, Excel Spreadsheet, etc.)
  ✓ Create a data point using MBSAQIP Data Registry If you want to capture a specific data point
    ➢ In the Data Registry Custom Fields and extract that data via the Case Details and Custom Fields Report
• Establish project calendar
PDC(S)A

PLAN
Recognize and plan for an improvement opportunity

DO
Test the plan

CHECK
Analyze the results and identify what you have learned

ACT
Implement the improvement; change the study if there is no improvement

4. Choose PI Methodology & Metrics
PDC(S)A

The benefits of repeated cycles
• Belief that change will result in improvement
• Opportunities for ‘failures’ without impacting performance
• Minimizes resistance when implemented
• Adapts to changing environment
DMAIC

4. Choose PI Methodology & Metrics

Define
- Look at data sources to identify an area of improvement related to patient safety, efficacy, or experience.

Measure
- Quantify the problem through a methodical approach to defining defects, metrics, and a detailed process map.

Analyze
- Identify sources of variation and determine root causes.

Improve
- Develop intervention to address the root causes that are critical to quality.

Control
- Monitor and validate the intervention to ensure a positive outcome, unintended consequences and sustainability.
Prioritization Matrix *(Define phase of DMAIC)*

1. **High Benefit/Low Effort**
   (low hanging fruit--make this the highest priority!)

2. **High Benefit/High Effort**
   (prioritize when necessary)

3. **Low Benefit/Low Effort**
   (prioritize when all goals for patient safety and satisfaction have been met)

4. **Low Benefit/High Effort**
   (ignore these)
Bounding Exercise

Draw a large square picture frame on a flip chart – This metaphor helps the team identify what falls inside the picture of their project and what falls out.
### More Of/Less Of: Clinic Patient Throughput Example

<table>
<thead>
<tr>
<th>More of…</th>
<th>Less of…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved patient satisfaction surveys</td>
<td>Patients complaining to manager</td>
</tr>
<tr>
<td>Patients praising reduced wait-time</td>
<td>Patients leaving without being seen</td>
</tr>
<tr>
<td>Transparent communication to patients about wait-time</td>
<td>Staff not communicating with each other and patients</td>
</tr>
<tr>
<td>Staff working together as a team</td>
<td>Providers being upset at staff</td>
</tr>
<tr>
<td>Prompt room assignment</td>
<td>Long wait times in reception area</td>
</tr>
<tr>
<td>Coordination of check-in/check-out</td>
<td>Patients waiting to check-out</td>
</tr>
</tbody>
</table>
ACS Sample SIPOC

Title: __________________________
1. __________________________
2. __________________________
3. __________________________
4. __________________________
5. __________________________
6. __________________________
7. __________________________
8. __________________________

INPUTS:
SUPPLIERS

OUTPUT:
CUSTOMERS

SUPPLIERS

Current or Future Process

Suppliers
Inputs
Process
Output
Customers
1. **OUTPUT:** What product, process, procedure, policy, improvement or new entity does this team want to produce. State it here as the OUTPUT. 5 words or less.

2. **Customers**
   - Who is going to receive and benefit from the OUTPUT the team desires to produce. The primary beneficiary of the OUTPUT is the CUSTOMER. Other, secondary or adjunct interested parties are STAKEHOLDERS. List all that apply.

3. **Process**
   - Imagine how the OUTPUT is to be produced. What are the 10–12 MAJOR steps or activities that need to be performed, in order to create the desired OUTCOME? List them here. This is the High Level Process that either exists, or will exist. Functional Workflows will develop this process in more detail. State your Process steps using a Verb/Noun two word descriptor.

4. **Suppliers**
   - In order to accomplish the 10–12 Process Steps: Who will supply the items described in your Process? Who will provide the Labor, Equipment, Facility, Materials, Components or Environment for your Process steps to convert, to achieve the desired Output. These are the required SUPPLIERS for the PROCESS.

5. **INPUTS:** INPUTS are the specific items the Suppliers provide to the Process, for the Process to work effectively. Sometimes identifying the Suppliers is enough detail. If more detail is desired, you can individually state for each supplier, the specific contribution. State what makes sense or leave blank.
Sample SIPOC: 100% patient compliance w/ preoperative CPAP and BIPAP use

1. Screen patients (screening tool for sleep apnea)
2. Obtain referral
3. Make appointment
4. Complete sleep study
5. Interpret results
6. Discuss results w/ patient
7. Order CPAP machine
8. Teach patient on use of machine
9. Measure patient compliance
10. Approve/Deny/Schedule surgery

INPUTS:
- Referring physicians
- Sleep medicine physicians
- CPAP equipment
- Patient education
- Sleep lab

OUTPUT: Surgery date scheduled
- Customer: Patient
- Stakeholder: Surgeon
- Stakeholder: Anesthesiologist
- Stakeholder: Inpatient nursing staff
- Stakeholder: Respiratory Therapist

Current or Future Process
- Suppliers
- Inputs
- Process
- Outputs
- Customers
5 Whys (Analyze Phase of DMAIC)

Do the following steps to find the Root Cause:
1. State the main cause
2. Ask WHY the main cause happens
3. Ask WHY the cause in #2 happens
4. Ask WHY the cause in #3 happens = Root Cause
5 Whys Example

**Problem:** Post-operative UTIs in 20 patients within 30 days of surgery.

**Main Cause:** Foleys were placed in the OR in each of these patients.

**Why?** This is the surgeon’s preference.

**Why?** Because the surgeons are worried about urinary retention during the case.

**Why?** Urinary retention causes pain for the patients & potentially occludes the operative field, in addition, patients often have trouble urinating after general anesthesia.
Process Improvement Comparison

**DMAIC vs PDCA**

- **DEFINE**
- **MEASURE**
- **ANALYZE**
- **IMPROVE**
- **CONTROL**

- **PLAN**
- **DO**
- **CHECK**
- **ACT**
Implement Intervention and Monitor Data

• Communicate, communicate, COMMUNICATE!
• MBS Director gathers all stakeholders to ensure engagement and buy-in
• Intervention must be clearly defined and implemented consistently
• Data must be monitored closely and often.
  ✓ If desired outcomes are not achieved, adjustments to the protocol should be made
QI Wrap - Up

• Gather all documentation and data for presentation to the MBS Committee at the annual QI Meeting (see Standard 2.4 for details); compare your data with current national benchmark data if available
• Review lessons learned, ways to sustain improvement, etc.
• Keep all records and documentation on file for your next triennial MBSAQIP Site Visit

CELEBRATE your efforts and your successes!
Remember!

1. QI Projects must be led by the MBS DIRECTOR and engage all members of the MBS Committee

2. Accredited centers must implement a NEW QI project every year

3. QI Projects are DYNAMIC and must be monitored over the course of the year

4. QI Projects must address a PROBLEM
Remember!

5. QI Projects must be **DATA-DRIVEN**

6. Once you begin receiving Semiannual Risk-adjusted Reports (SARs), your center must prioritize QI related to models where the center is found to be a **HIGH OUTLIER** (see Standard 7.2 for complete details)
Reminder!

**IMPORTANT NOTE:** Identifying a good QI initiative may require reviewing multiple different topics in order to identify the one most appropriate for your program.
QI Ideas from the “Trenches”

• Project to increase PO protein intake at 30-day post-operative visit
• Project to increase attendance at support groups
• Project(s) to increase long-term follow-up (LTFU) compliance
• Project to ensure lab results obtained prior to LTFU appointments with MBS Team members
• Project to decrease patient waiting times in MBS Clinic
QI Ideas from the “Trenches”

• Project to increase patient adherence to post-operative exercise regimen
• Project to identify thorough pre-operative patient work-up/evaluations
• Project to increase patient compliance with preoperative CPAP use
• Project to increase PO hydration the first 30-days after surgery
Additional Resources:
http://www.health.state.mn.us/qi/
Quality Improvement Toolkits

• 30-Day Readmission, Surgical Site Infection (SSI) and Urinary Tract Infection (UTI)

• Resource Portal
Quality Improvement Toolkits

- Toolkit elements:
  - Educational video
  - PowerPoint presentation
  - Case study
  - Visual abstract
  - Additional resources
QI Projects must address a **PROBLEM** (if you don’t have any SSIs in your sleeve patients, then don’t choose this as your project)

QI Projects must be **DATA-DRIVEN**—develop a metric to measure the effectiveness of your QI project and identify the baseline

**Closing Reminders**
What Not to Do....

• Do **not** conduct a QI Initiative on a “hunch”
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