A note from Dr. Mike Englesbe, MSQC’s new Director

Dr. Campbell has been described as the “father of surgical quality improvement in the United States.” As he takes his esteemed position as Director Emeritus, he has challenged all of us to continue to serve patients by making Michigan the safest place to have surgery in the United States. This ambitious vision is obtainable because of our community of excellence, our rigorous and evidenced based structure, and the remarkable support we continue to receive from Blue Cross and Blue Shield of Michigan.

We hope you will enjoy this brief overview of the broad scope and accomplishments of the MSQC program. Not only does it highlight our successes over the past year, but it illustrates the many things that make this organization unique. These include the many new friendships and collaborations forged over the years to drive change in surgical care. The deep meaning of our work drives us to overcome the ever-present limitations of time and resources. We remain steadfast in our mission of improving lives in Michigan and beyond, and are so excited for the future!

I would like to thank Dr. Campbell. We can never measure how many patients’ lives are saved or improved because of his vision and leadership. He has handed all of us the football; we are excited to continue to have him blocking for us.

Mike Englesbe
**MSQC’S YEAR IN REVIEW**

**EVENTS**

**MSQC BIENNIAL CONFERENCE**

This year marked our 5th Biennial Conference—a two-day gathering for surgeons, nurses, and quality improvement specialists. The event was held at Boyne Mountain Resort and was dedicated to the spirit of learning, empowering, and improving.

The focus of the 2017 Conference was to highlight the important work done by all of our many MSQC member hospitals throughout the state of Michigan, provide a great opportunity to examine our work as a leader of improving surgical care, share what we have learned about ourselves this past year, and discuss our successes and goals for the rest of this year and into the future.

Keynote speakers included: Barbara Bass, MD, FACS, President of the American College of Surgeons; Victor Strecher, PhD, MPH, Director of Innovation at the University of Michigan’s School of Public Health; and Mary Hawn, MD, MPH, FACS, Chair of the Department of Surgery at Stanford University.

We also had a record number of poster presentations, a wide variety of breakout sessions with special interest tracks for surgeons, nurses, and quality teams, and a plethora of opportunities for informal networking and collaboration.

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**2018 DATES TO REMEMBER**

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<tr>
<th>Event Type</th>
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<td>December 7</td>
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Want to know more about MSQC?

Visit our website and download our brochure.

[msqc.org/about-us]
MSQC Collaborative Meetings

Six collaborative-wide meetings were held this year at varying locations across the state to promote best practice ideas and encourage collaboration between members.

Meeting highlights include:

**MSQC September 2016 Collaborative Meeting**
John Byrn, MD launches the MSQC Surgical Video Review Program as a tool to improve technical quality in colorectal surgery.

**MSQC December 2016 Collaborative Meeting**
A patient volunteer presented an emotional testimony to connect providers within the collaborative with the real-world impact of opioid prescribing.

**The April MSQC-ASPIRE Collaborative Meeting**
Drs. Englesbe and Shah relayed the importance of partnership between surgeons and anesthesiologists and their plans for integrating the ASPIRE preoperative and intraoperative anesthesia data with the MSQC surgical outcomes data to create a full picture of patient care and evaluate best practices.

**MSQC Surgical Clinical Quality Reviewer (SCQR) Workshop**
Data design expert Kathy Rowell offered in-person, hands-on training to MSQC data abstractors to assist them in utilizing and communicating their hospital data to support their individual Quality Improvement Initiative (QII).

**MSQC QI Workshop: Enhanced Recovery**
Detroit Medical Center’s Dr. Vinay Pallekonda and St. Joseph Mercy Hospital’s Dr. Robert Cleary shared recommendations on garnering engagement, reducing readmissions, and leveraging technologies to support Enhanced Recovery Protocols.

**MSQC QI Workshop: Reducing Sepsis**
Keynote speaker, Dr. Jim O’Brien, the system Vice President of Quality at OhioHealth and Board of Directors member for the Sepsis Alliance, presented on delivering the right care at the right time, sepsis as a life-threatening and -altering disease, and building a care system to help engage patients and regain quality of life after diagnosis (survivorship).
**Executive Committee**

The MSQC Executive Committee oversees and approves organizational level decision making for the collaborative.

During the 2017 evaluation year, committee members reviewed and sanctioned:

- The launch of the data-driven MSQC Opioid Prescribing Recommendations;
- The Performance Improvement (PI) Index for the measurement of Quality Improvement incentive earning;
- The Value Based Reimbursement (VBR) measures selected for incentivizing specialists enrolled with a Physician Organization (PO); and
- The designation of Dr. Michael Englesbe as active MSQC Director.

**Research and Publication Advisory Committee**

The MSQC Research and Publication Advisory Committee reviews and discusses relevant research and publication opportunities to facilitate the dissemination of best practice through literature.

The R&P Advisory Committee had the opportunity to discuss and review MSQC data related to:

- An Emergency General Surgery Research Project—Preliminary analysis suggests mortality is significantly reduced by hospitals following an ACS model and publication opportunities were discussed.
- Publications surrounding Patient Reported Outcomes (PROs) collection, pain and opioid collection, and Surgical Video Review results.

**Hysterectomy Committee**

The MSQC Hysterectomy Committee is made up of MSQC GYN Surgeon Champions with specific interest in the development of best practices for women’s health.

2017 Hysterectomy Committee meetings focused on:

- Goals and barriers to implementation of the hysterectomy bundle reduce.
- Ways to standardize selection of hysterectomy surgical approach.

**Cancer Steering Committee**

The MSQC Cancer Steering Committee consists of a group of clinicians with specific interest in the development of cancer care best practice for general surgery procedures.

The Cancer Steering Committee met to:

- Kick off a Total Mesorectal Excision (TME) grading research and quality improvement project.
- Host Hyperthermic Intraperitoneal Chemotherapy (HiPEC) specialists to present committee members with targeted quality improvement opportunities for HiPEC in the state of Michigan.

**Definition Advisory Committee**

The MSQC Definition Advisory Committee evaluates all data collection definitions to capture the appropriate clinical intent of the variable.

This year, committee members convened to:

- Clarify, add, and update approximately 50 definitions.
- 2017 collection options include the addition of Enhanced Recovery and Pain/Opioid variables.
NATIONAL OUTREACH

Building on the Collaborative Quality Improvement model established in Michigan, the MSQC is bringing together other similar statewide initiatives by establishing the Center of Excellence for Collaborative Quality Improvement (CECQI). This year, an inaugural CECQI summit launched the national discussion to support regional collaboratives. Attendance included several other states, including Tennessee, South Carolina, Illinois, and Pennsylvania, which all have multi-hospital improvement initiatives around surgical care, but on a slightly smaller scale than in Michigan.

CECQI SUMMIT ATTENDANCE
MSQC CASE SELECTION

NEW MSQC 4.0 Sampling Methodology

MSQC understands that not all procedure groups are equally as risky, or clinically as interesting, and thus should not necessarily be given equal consideration for clinical abstraction. Therefore, MSQC 4.0 brings two sampling methodology changes to address these concerns. First, hysterectomy and vascular procedures are now optional ‘clinical pathways’ and require hospitals to declare participation on an individual basis. And second, MSQC 4.0 is moving to a Neyman’s allocation sampling algorithm across the board for selection of the required core procedure cases.

Core Data Collection

Core data collection consists of all cases eligible for basic MSQC abstraction.

General Surgery

MSQC Core Data Collection consists of 217 CPT codes. These general surgery cases are organized into eleven different procedure groups and include: Appendectomy, Cholecystectomy, Bowel, Esophagectomy, Gastrectomy, Hepatectomy, Hernia, Pancreatectomy, Thyroidectomy, Adrenalectomy, and Splenectomy. Core case collection is a requirement of all MSQC participating hospitals, so member hospitals must perform at least one or more of the procedures listed above.

Advanced Data Collection

Advanced data collection allows for a deeper dive into cases already included within the core sample selection.

The Colorectal Cancer (CRC) Project

The Colorectal Cancer Project began as a one-year pilot with ten sites collecting extra data variables relevant to Colorectal Cancer cases (combination of 42 CPT codes with 12 ICD 10 codes). The preliminary data was successful in identifying significant differences between hospitals on rectal cancer quality measures indicating the potential for MSQC to improve the quality of care. Pilot data was presented to the collaborative at a 2014 meeting and interest and participating hospitals grew to 30 sites contributing colorectal cancer data. The following year, data was again reported back to the Collaborative and an additional eight sites joined for a total of 38 contributing hospitals in 2016. Recruitment and abstraction training will open early 2018 for additional interested sites.

Clinical Pathways

Clinical pathways are optional procedures that can be collected by sites to accommodate additional quality improvement efforts outside of the MSQC core CPT codes.

Hysterectomy

In the past years, hysterectomy cases were included as part of the MSQC core collection and in 2013, additional hysterectomy specific variables were added. To customize collection and meet the needs of all member hospitals, hysterectomy cases became an optional clinical pathway in 2017. Sites interested in focused data collection and quality improvement for hysterectomy declare participation in this clinical arm on an annual basis. Participation includes 37 additional hysterectomy CPT codes and involves data collection for core variables, plus 17 additional hysterectomy specific variables. 59 MSQC hospitals participated in this optional data collection for the 2017 year and 57 have declared participation for 2018.

Vascular

In years past, vascular cases were included as part of MSQC core collection, however beginning in 2017, MSQC created a clinical pathway option for the collection of this subspecialty. Vascular cases are now an optional collection pathway and interested hospitals declare participation on an annual basis. The vascular procedure group includes 70 CPT codes and data collection is limited to all core variables. Thirty-eight MSQC hospitals participated in this optional data collection for the 2017 year and 35 have declared participation for 2018.
2017 PERFORMANCE FEEDBACK ENHANCEMENTS

• New ArborMetrix functionality for 2017 includes email-driven surveys for collecting patient-reported outcomes (PROs), a surgical video review platform, and architecture improvements that significantly improved data collection speed and efficiency.

• In September 2017, MSQC revised the reports available in the ArborMetrix application. The revision included simplifying over 30 measures into 16 dashboard measures and removing infrequently used reports. The remaining dashboard measures focus on Morbidity, SSI, Sepsis, and Utilization, including ED Visit rates and Length of Stay, among others. These revisions will help hospitals identify problem areas more easily and work toward quality improvement in those areas.

• In December 2017, MSQC launched a new Hysterectomy bundle report. The measures included in the bundle are: use of minimally invasive surgery, reduced operative duration, avoidance of hemostatic agents and appropriate IV prophylactic antibiotics. This bundle is intended to help sites reduce the occurrence of hysterectomy related complications.

SUPPORTING QUALITY DATA COLLECTION

• Seven full abstractor training sessions were conducted for a total of 23 new nurse data abstractors. Full sessions include the completion of eleven preparatory online learning modules, one 8 hour in-person training session, five complex variable case studies, two targeted conference calls, two webinars, and completion of two practice cases with entry into a training workstation.

• 12 Inter-Rater Reliability Audits have been conducted during this reporting period. Data entered into the workstation is validated by the MSQC Clinical Site Support nurses and held to a 95% passing rate for data quality assurance.

• 1,248 questions were answered through the Definition Helpline during this reporting period and frequently asked questions were compiled as a quick resource for MSQC data abstraction.
QUALITY IMPROVEMENT

MSQC Toolkits

Venous Thromboembolism (VTE) Quality Improvement Toolkit

The MSQC VTE Toolkit contains abundant resources to help in starting an effective VTE QI project or program. The toolkit contains guidance on forming a steering committee, patient education, project proposal, timeline tip sheet, case review template, smoking cessation tip sheet and more.

Surgical Site Infection (SSI) Quality Improvement Toolkit

The SSI Quality Improvement Toolkit is intended to provide a framework to assist in identifying areas for improvement and to provide resources, recommendations, and ready access-tools to guide the successful implementation of a Surgical Site Infection Reduction Plan. These resources and tools can be individualized to meet the needs of patients and providers within the context of varying hospital cultures.

Enhanced Recovery Program (ERP) Start Up Toolkit

MSQC has designed this toolkit to provide resources, recommendations and ready-access tools to guide users through the process of successful introduction and initial implementation of ERP. The toolkit offerings are intended to “cultivate creativity and inspire innovation” as hospitals pursue the establishment of an enhanced recovery program.

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Enhanced Recovery Program (ERP) Clinical Pathways Toolkit

The Enhanced Recovery Program (ERP) Clinical Pathways Toolkit is a collection of resources, recommendations and tools that will enable providers to introduce, tailor and implement ERP clinical care pathways successfully. The toolkit offerings are intended to “cultivate creativity and inspire innovation” as hospitals pursue the establishment of an enhanced recovery program.

Patient Safety Organization (PSO) Educational Toolkits

During this term, updated MSQC PSO Learning Modules were created to support the protection of data within the PSO and across participating member hospitals:

- **MSQC PSO: Basic Terms and Concepts**
- **MSQC PSO: Defining PSWP and Creating a PSES**

Collaborative Improvement Toolkit: The MSQC Learning Health System Model

The Center of Excellence for Collaborative Quality Improvement (CECQI) created this comprehensive resource to support other organizations in creating similar statewide models for quality improvement. Materials and resources have been generated from the successes and lessons learned from the Michigan Surgical Quality Collaborative.
NEW QUALITY INITIATIVES FOR 2017

IMPROVING SURGICAL CARE

42% RELATIVE REDUCTION
IN SURGICAL SITE INFECTIONS FOR COLECTOMY BUNDLE PROCEDURES (2012–2016)

10% RELATIVE REDUCTION
IN READMISSIONS (2008–2016)

17% RELATIVE REDUCTION
IN LENGTH OF STAY (LOS) (2008–2016)

MSQC PATIENT REPORTED OUTCOMES (PROS)

MSQC recognizes that the true measure of quality care is rooted in the perspective of the patient, so capturing Patient Reported Outcomes is key to evaluating our successes. Measures of satisfaction, functional status, quality of life, pain and opioid use are collected directly from patients after surgery to better evaluate the full impact of care on the patient.

Patient Reported Outcomes is a new and important addition to MSQC’s current and future data collection. In April 2017, we launched our first Postoperative PROs Pilot to capture data directly from the patient to obtain quality of life, functional status, pain and opioid drug prescribing and use measures 90-180 days after surgery. After a complete 3-6 months of data collection is achieved, we plan to evaluate the success of the pilot, refine the application to optimize response rates, and expand PRO collection to all MSQC hospitals.

Future iterations of the MSQC PROs implementation will not only expand postoperative PROs collection to more hospitals, but we also hope to begin a Preoperative PROs Pilot to capture patient-reported measures before surgery. The Preoperative PRO collection is currently in development with MSQC Coordinating Center Clinical Leads, Michigan-OPEN, and engaged sites. Successful implementation of both pre and postoperative patient-reported outcomes will result in powerful quality improvement opportunities and will mark an exciting shift in our data collection toward contributing to patient-centered care development.
MSQC SURGICAL VIDEO REVIEW

MSQC Surgical Video Review allows surgeons to reflect on their own surgical technique through self-evaluation and learning via anonymous peer review. Practicing surgeons can submit a de-identified laparoscopic colectomy surgical video for objective peer review and feedback to assist in improving surgical technical skills and subsequently, reduce negative patient outcomes.

The tool used for peer review has been validated for laparoscopic right colectomy in conjunction with the American Society of Colon and Rectal Surgeons (ASCRS) and it evaluates the following 10 areas using a 1-5 rating scale: Pedicle, Respect for Tissue, Time and Motion, Instrument Handling, Flow of Operation, Exposure, Tissue Planes, Completeness of Dissection, and Overall Technical Skill.

The MSQC video submission and review began in July of 2017 with a focus on laparoscopic and robotic colectomy surgery. Our vision is to replicate the great work performed by the Bariatric Collaborative, MBSC, by facilitating surgical video review for objective peer to peer feedback that will assist in improving surgical technical skills and subsequently, reduce negative patient outcomes.

By August 2017, 17 surgeons contributed videos, over 100 video reviews had been performed and MSQC conducted its very first Surgical Video Review Session at the 2017 MSQC Conference.

MSQC Surgical Video Review Project

- Video-record your laparoscopic colectomy
- Upload your video to be edited and prepared for review
- Evaluate your peers’ videos & your peers will evaluate yours

msqc.org/surgeon-video-review
MSQC OPIOID PRESCRIBING RECOMMENDATIONS

Introduction

It is no secret that nationally we are experiencing an epidemic of opioid misuse and abuse. Recent studies suggest that new persistent opioid use after surgery is common, with approximately 6% to 10% of patients who were not taking opioids before surgery are continuing to use opioids more than 3 months after surgery, depending upon the procedure\(^1\,\^2\). The Michigan Surgical Quality Collaborative has partnered with the Michigan Opioid Prescribing Engagement Network (Michigan-OPEN) on a preventative approach for the state of Michigan which ensures that postoperative patients are receiving appropriate pain management and palliative care, while protecting patients and communities from the harmful effect of excess prescription opioids.

The MSQC Coordinating Center is excited to be partnering with the Michigan Opioid Prescribing Engagement Network to provide a patient-centered and evidence-based approach to postoperative opioid prescribing in Michigan. MSQC is the first CQI to partner with Michigan-OPEN to collect pain and opioid-use data through its data infrastructure. Together, our organizations produced an Opioid Prescribing Video to illustrate the mission, direction, and impact of our partnership.

Opioid Prescribing Recommendations

MSQC in partnership with Michigan-OPEN announced this October post-surgery prescribing recommendations that are the first of their kind – data-driven prescribing and counseling recommendations for 11 common operations (and growing). Pain and opioid-use data collected from patients across the state was analyzed to develop a more educated approach to prescribing and better align patient needs with prescribing practices. Continued data collection will enable us to reevaluate the recommendations regularly and add additional procedures. Together we aim to decrease the availability of excess opioids and protect Michigan’s patients and communities.

Additional Education and Resources

To accompany the opioidprescribing.info site, Michigan-OPEN and the MSQC Coordinating Center staff are collaborating to create both provider and patient targeted toolkits to support the implementation of the opioid prescribing recommendations. MSQC has also been actively assisting the Michigan-OPEN in its mission to improve opioid return and disposal by widely distributing and promoting the Michigan-OPEN Opioid Disposal Map and publicizing each of the multiple ‘Michigan-OPEN Take Back’ events widely through our infrastructure.


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For the latest Opioid Prescribing Recommendations for Surgery visit: opioidprescribing.info

OPEN
OPIOID PRESCRIBING ENGAGEMENT NETWORK

MSQC
Michigan Surgical Quality Collaborative
A SPIRIT OF COLLABORATION

MSQC is a true collaboration. Our members provide their data, share their ideas, and help identify the issues of importance to them. We host and maintain the data in our robust regional registry, analyze issues, identify best practices, and disseminate the information widely.

Support for MSQC is provided by Blue Cross and Blue Shield of Michigan and Blue Care Network as part of the BCBSM Value Partnerships program.

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