

## Report on a QI Project Eligible for MOC – ABMS Part IV and NCCPA PI-CME

### Colorectal Surgery ACTIVATE (Advancing Care, Treatment efficiency, Innovation, Value, And Teamwork for Colorectal Episodes)

#### Instructions

**Determine eligibility.** Before starting to complete this report, go to the Michigan Medicine MOC website [<http://www.med.umich.edu/moc-qi/index.html>], click on “Part IV Credit Designation,” and review sections 1 and 2. Complete and submit a “QI Project Preliminary Worksheet for Part IV Eligibility.” Staff from the Michigan Medicine Part IV MOC Program will review the worksheet with you to explain any adjustments needed to be eligible. (The approved Worksheet provides an outline to complete this report.)

**Completing the report.** The report documents completion of each phase of the QI project. (See section 3 of the website.) Final confirmation of Part IV MOC for a project occurs when the full report is submitted and approved.

An option for preliminary review (strongly recommended) is to complete a description of activities through the intervention phase and submit the partially completed report. (Complete at least items 1-18.) Staff from the Michigan Medicine Part IV MOC Program will provide a preliminary review, checking that the information is sufficiently clear, but not overly detailed. This simplifies completion and review of descriptions of remaining activities.

Questions are in bold font. Answers should be in regular font (generally immediately below or beside the questions). To check boxes, hover pointer over the box and click (usual “left” click).

For further information and to submit completed applications, contact either:

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#### Report Outline

Section	Items
<b>A. Introduction</b>	1-6. Current date, title, time frame, key individuals, participants, funding
<b>B. Plan</b>	7-8. Patient population, general goal 9-11. Measures, baseline performance, specific aims 12-15. Baseline data review, underlying (root) causes, interventions, who will implement
<b>C. Do</b>	16. Intervention implementation date
<b>D. Check</b>	17-18. Post-intervention performance
<b>E. Adjust – Replan</b>	19-22. Post-intervention data review, underlying causes, adjustments, who will implement
<b>F. Redo</b>	23. Adjustment implementation date
<b>G. Recheck</b>	24-26. Post-adjustment performance, summary of individual performance
<b>H. Readjust plan</b>	27-30. Post-adjustment data review, underlying causes, further adjustments, who will implement
<b>I. Participation for MOC</b>	31-33. Participation in key activities, other options, other requirements
<b>J. Sharing results</b>	34. Plans for report, presentation, publication
<b>K. Organization affiliation</b>	35. Part of UMHS, AAVA, other affiliation with UMHS

## QI Project Report for Part IV MOC Eligibility

### A. Introduction

1. **Date** (*this version of the-report*): 3/9/2021
2. **Title of QI effort/project** (*also insert at top of front page*): Colorectal Surgery ACTIVATE (Advancing Care, Treatment efficiency, Innovation, Value, And Teamwork for Colorectal Episodes)
3. **Time frame**
  - a. **MOC participation beginning date – date that health care providers seeking MOC began participating in the documented QI project** (*e.g. date of general review of baseline data, item #12c*): 8/30/2019
  - b. **MOC participation end date – date that health care providers seeking MOC completed participating in the documented QI project** (*e.g., date of general review of post-adjustment data, item #26c*): 2/26/2021

### 4. Key individuals

- a. **QI project leader** [*also responsible for confirming individual's participation in the project*]  
**Name:** John Byrn, MD  
**Title:** Clinical Associate Professor of Surgery  
**Organizational unit:** Department of General Surgery, Division of Colorectal Surgery  
**Phone number:** 734-647-9710  
**Email address:** jcbyrn@med.umich.edu  
**Mailing address:** 2922 Taubman Center, 1500 E. Medical Center Dr. SPC 5300, Ann Arbor, MI 48109
- b. **Clinical leader who oversees project leader regarding the project** [*responsible for overseeing/"sponsoring" the project within the specific clinical setting*]  
**Name:** David Miller, MD, MPH  
**Title:** Chief Clinical Officer, University Hospital and Cardiovascular Center  
**Organizational unit:** Michigan Medicine  
**Phone number:** 734-647-6313  
**Email address:** dcmiller@med.umich.edu  
**Mailing address:** Urology, 3747 Taubman Center, Ann Arbor MI 48109-5330

### 5. Participants. Approximately how many physicians (by specialty/subspecialty and by training level) and physicians' assistants participated for MOC?

Participating for MOC	Primary Specialty	Subspecialty, if any	Number
Faculty physicians	General Surgery	Colon & Rectal Surgery	1
Faculty physicians	Urology		1
Physicians' Assistants	General Surgery	Colon & Rectal Surgery	3

### 6. How was the QI effort funded? (Check all that apply.)

- Internal institutional funds (e.g., regular pay/work, specially allocated)
- Grant/gift from pharmaceutical or medical device manufacturer
- Grant/gift from other source (e.g., government, insurance company)

- Subscription payments by participants
- Other source (*describe*):

*The Multi-Specialty Part IV MOC Program requires that QI efforts include at least two linked cycles of data-guided improvement. Some projects may have only two cycles while others may have additional cycles – particularly those involving rapid cycle improvement. The items below provide some flexibility in describing project methods and activities. If the items do not allow you to reasonably describe the steps of your specific project, please contact the UMHS Part IV MOC Program Office.*

## B. Plan

**7. Patient population. What patient population does this project address (e.g., age, medical condition, where seen/treated):** Adult patients (age  $\geq 18$ ) undergoing one the following procedures: ileostomy takedown, ostomy creation, segmental colectomy, abdominal perineal resection and who are admitted to units 5A, 5B, or 5C.

### 8. General purpose.

#### a. Problem with patient care (“gap” between desired state and current state)

(1) What should be occurring and why should it occur (benefits of doing this)?

There should be a standard practice to follow to help with clinical decision-making and patient throughput after colorectal surgery. By establishing standard guidelines to follow and metrics, patients receive consistent, standard care, and the residents, Advanced Practice Teams (APTs, including Physician Assistants and Nurse Practitioners), and physicians can be educated and feel empowered to independently act on the next clinical steps.

Patients should be ambulating within 4 hours of arriving on the unit. The extent of ambulation can range from walking from the stretcher to the bed, to whatever level of physical activity with which the patient feels comfortable. Surgeons should be referring 100% of patients undergoing a planned colorectal procedure to Michigan Surgical & Health Optimization Program (MSHOP), a “pre-hab” program designed to optimize patients for recovery before they undergo their procedure. Post-op ostomy education for ostomy creation and abdominal perineal resections should be completed within three visits.

(2) What is occurring now and why is this a concern (costs/harms)?

Patient care and outcomes are being impacted by capacity constraints and lack of efficiency in moving patients forward along their perioperative continuum. Colorectal surgery is a high volume practice with a wide variety of cases and a proven history of quality improvement, and as such, it is a clear candidate for targeting Length of Stay (LOS) reduction measures. The targeted issues are twofold: patients either enter the hospital having not been optimized for surgery, thereby affecting their recovery trajectory, or patients who have met post-op discharge criteria are staying longer than needed. These issues lead to slower patient recovery trajectories and increased capacity constraints.

#### b. Project goal. What general outcome regarding the problem should result from this project?

(*State general goal here. Specific aims/performance targets are addressed in #11.*)

By enrolling all elective cases in MSHOP, ambulating patients within four hours of arrival to their post-op unit, and completing ostomy education within three ostomy nurse visits, ACTIVATE aims to streamline patient care and recovery to decrease LOS, accelerate patients’ recovery trajectories, and lower the hospital census burden with the ultimate goals of increasing operating room availability and improving patient satisfaction.

**9. Describe the measure(s) of performance:** (*QI efforts must have at least one measure that is tracked across the two cycles for the three measurement periods: baseline, post-intervention, and post-*

adjustment. If more than two measures are tracked, copy and paste the section for a measure and describe the additional measures.)

Measure 1

- **Name of measure** (e.g., Percent of . . ., Mean of . . ., Frequency of . . .):  
Median LOS of ACTIVATE patients
- **Measure components** – describe the:
  - Denominator (e.g., for percent, often the number of patients eligible for the measure):  
Number of ACTIVATE patient inpatient hospital days total
  
  - Numerator (e.g., for percent, often the number of those in the denominator who also meet the performance expectation):  
Number of ACTIVATE patient inpatient stays/events total
- **The source of the measure is:**
  - An external organization/agency, which is (name the source, e.g., HEDIS):
  - Internal to our organization and it was chosen because (describe rationale): Our goal is to decrease LOS, and we chose the median over the average so as to mitigate the effects of outliers who may have longer LOS for clinical reasons and who may not be addressed in our initiative
- **This is a measure of:**
  - Process – activities of delivering health care to patients
  - Outcome – health state of a patient resulting from health care, LOS reduction

**10. Baseline performance**

a. What were the beginning and end dates for the time period for baseline data on the measure(s)?

2/1/2018 – 8/1/2018

b. What was (were) the performance level(s) at baseline? Display in a data table, bar graph, or run chart (line graph). Can show baseline data only here or refer to a display of data for all time periods attached at end of report. Show baseline time period, measure names, number of observations for each measure, and performance level for each measure.

LOS (days)	Group 1: Ileostomy Takedown (n = 54)	Group 2: Creation of Ostomy (n = 54)	Group 3: Segmental Colectomy (n = 93)	Group 4: Abdominal Peritoneal Resection (n = 7)
Baseline Median LOS	2.0	5.5	4.0	7.0
Goal (median)	1.5	5.0	3.0	6.0

**11. Specific performance aim(s)/objective(s)**

a. What is the specific aim of the QI effort? “The Aim Statement should include: (1) a specific and measurable improvement goal, (2) a specific target population, and (3) a specific target date/time

*period. For example: We will [improve, increase, decrease] the [number, amount percent of [the process/outcome] from [baseline measure] to [goal measure] by [date]."*

Our specific aims are to decrease median LOS for ileostomy takedowns from 2.0 to 1.5 days, ostomy creations from 5.5 to 5.0 days, segmental colectomies from 4.0 to 3.0 days, and abdominal perineal resections from 7.0 to 6.0 days by 12/4/2020.

**b. How were the performance targets determined, e.g., regional or national benchmarks?**

Discussion was held between the Colorectal Surgeon, Clinical Liaison, and parties involved in collecting the metrics. They predicted what they thought a reasonable goal would be for these metrics. There is literature proving early ambulation can decrease LOS by 1 day. Our hospital conducted a study showing pre-operative management (MSHOP) can also help reduce LOS by 1 day.

**12. Baseline data review and planning. Who was involved in reviewing the baseline data, identifying underlying (root) causes of problem(s) resulting in these data, and considering possible interventions (“countermeasures”) to address the causes? (Briefly describe the following.)**

- a. **Who was involved?** (e.g., by profession or role) Physicians, physician assistants, nurse practitioners, project managers, Michigan Medicine administration
- b. **How?** (e.g., in a meeting of clinic staff) Bi-weekly ACTIVATE meetings
- c. **When?** (e.g., date(s) when baseline data were reviewed and discussed) 8/30/2019

**Use the following table to outline the plan that was developed: #13 the primary causes, #14 the intervention(s) that addressed each cause, and #15 who carried out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at <http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation> in section 2a. As background, some summary examples of common causes and interventions to address them are:**

<b>Common Causes</b>	<b>Common Relevant Interventions</b>
<i>Individuals: Are not aware of, don't understand.</i>	<i>Education about evidence and importance of goal.</i>
<i>Individuals: Believe performance is OK.</i>	<i>Feedback of performance data.</i>
<i>Individuals: Cannot remember.</i>	<i>Checklists, reminders.</i>
<i>Team: Individuals vary in how work is done.</i>	<i>Develop standard work processes.</i>
<i>Workload: Not enough time.</i>	<i>Reallocate roles and work, review work priorities.</i>
<i>Suppliers: Problems with provided information/materials.</i>	<i>Work with suppliers to address problems there.</i>

<b>13. What were the primary underlying/root causes for the problem(s) at baseline that the project can address?</b>	<b>14. What intervention(s) addressed this cause?</b>	<b>15. Who was involved in carrying out each intervention? (List the professions/roles involved.)</b>
Lack of efficiency of patient education	Prioritizing completing ostomy education earlier by encouraging ostomy nurses to finish educating patients within three ostomy visits	Ostomy nurses, physician assistants
Variation in physician practice with respect to enrolling patients in pre-operative	Increasing physician awareness of MSHOP through faculty meetings, encouraging 100%	Physician faculty, physician assistants

management through MSHOP	enrollment in MSHOP for patients undergoing planned procedures	
Patients not optimized for surgery preoperatively; care continuity affected by lack of standardized communication method between teams	Creation of a Care Management Patient Pre-Surgery Checklist to be mailed to patients within two weeks of their surgery, in addition to a scheduled phone call with LPN to discuss individual patient needs	Physician assistants, project managers, care managers, clinic managers, LPNs
Patients not motivated to ambulate after surgery due to lack of education on post-op expectations and lack of encouragement to ambulation from the care team	Encouraged early ambulation (within 4 hours) after surgery by having nurses prioritize ambulation with every patient	Floor RNs, nurse aids

Note: If additional causes were identified that are to be addressed, insert additional rows.

**C. Do**

16. By what date was (were) the intervention(s) initiated? (If multiple interventions, date by when all were initiated.) 10/15/2019

**D. Check**

17. Post-intervention performance measurement. Are the population and measures the same as those for the collection of baseline data (see item 9)?

Yes  No – If no, describe how the population or measures differ:

**18. Post-intervention performance**

a. What were the beginning and end dates for the time period for post-intervention data on the measure(s)?

10/15/2019 – 3/22/2020

b. What was (were) the overall performance level(s) post-intervention? Add post-intervention data to the data table, bar graph, or run chart (line graph) that displays baseline data. Can show baseline and post-intervention data incrementally here or refer to a display of data for all time periods attached at end of report. Show baseline and post-intervention time periods and measure names and for each time period and measure show number of observations and performance level.

LOS (days)	Group 1: Ileostomy Takedown	Group 2: Creation of Ostomy	Group 3: Segmental Colectomy	Group 4: Abdominal Peritoneal Resection (APR)
Baseline Median LOS	2.0	5.5	4.0	7.0
Post-intervention Median LOS	1.9	5.3	3.2	6.3

**c. Did the intervention(s) produce the expected improvement toward meeting the project’s specific aim (item 11.a)?**

Yes – median LOS decreased for each of the four procedure categories, with the largest gains seen in the APR and segmental colectomy categories.

**E. Adjust – Replan**

**19. Post-intervention data review and further planning. Who was involved in reviewing the post-intervention data, identifying underlying (root) causes of problem(s) resulting in these new data, and considering possible interventions (“countermeasures”) to address the causes? (Briefly describe the following.)**

**a. Who was involved? (e.g., by profession or role)**

Same as #12?     Different than #12 (describe):

**b. How? (e.g., in a meeting of clinic staff)**

Same as #12?     Different than #12 (describe):

**c. When? (e.g., date(s) when post-intervention data were reviewed and discussed)**

7/7/2020 (data were not gathered and meetings were put on hold from the end of March to the beginning of July 2020 due to COVID-related caseload reductions)

**Use the following table to outline the next plan that was developed: #20 the primary causes, #21 the adjustments/second intervention(s) that addressed each cause, and #22 who carried out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at <http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation> in section 2a.**

*Note: Initial intervention(s) occasionally result in performance achieving the targeted specific aims and the review of post-intervention data identifies no further causes that are feasible or cost/effective to address. If so, the plan for the second cycle should be to continue the interventions initiated in the first cycle and check that performance level(s) are stable and sustained through the next observation period.*

<p><b>20. What were the primary underlying/root causes for the problem(s) following the intervention(s) that the project can address?</b></p>	<p><b>21. What adjustments/second intervention(s) addressed this cause?</b></p>	<p><b>22. Who was involved in carrying out each adjustment/second intervention? (List the professions/roles involved.)</b></p>
<p>Care Management Checklist was not utilized as intended. A lack of sufficient staffing created a barrier that prevented the team to send the checklist consistently to all patients and/or complete the pre-op phone call. Some clinic staff members were redeployed due to COVID-19, and LPNs were not able to complete the pre-op phone call. The checklist was therefore not sent to all patients two weeks before surgery, as intended.</p>	<p>The Care Management Checklist was transitioned away from ACTIVATE and incorporated into a separate, but related, multidisciplinary project by Clinical Design &amp; Innovation (CDI) and is now attached to the patients’ preop clinic appointment via the patient portal. There was also a “road to discharge” development by care management that incorporated the multi-team checklist.</p>	<p>Physicians, nurses, physician assistants, project managers, CDI Quality Improvement specialists</p>

Advanced Practice Professionals (APPs) were responsible for collecting data on the checklist in addition to their clinical responsibilities, which proved to be a hindrance to APP workflow	We recognized that CDI specialists were engaged in a separate, but related project and asked them to help collect data.	Physicians, nurses, physician assistants, project managers, CDI Quality Improvement specialists
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Note: If additional causes were identified that are to be addressed, insert additional rows.

**F. Redo**

23. By what date was (were) the adjustment(s)/second intervention(s) initiated? (If multiple interventions, date by when all were initiated.)

7/10/2020

**G. Recheck**

24. Post-adjustment performance measurement. Are the population and measures the same as indicated for the collection of post-intervention data (item #19)?

Yes     No – If no, describe how the population or measures differ:

25. Post-adjustment performance

a. What were the beginning and end dates for the time period for post-adjustment data on the measure(s)?

7/10/2020 – 12/4/2020

b. What was (were) the overall performance level(s) post-adjustment? Add post-adjustment data to the data table, bar graph, or run chart (line graph) that displays baseline and post-intervention data. Can show here or refer to a display of data for all time periods attached at end of report. Show time periods and measure names and for each time period and measure show the number of observations and performance level.

LOS (days)	Group 1: Ileostomy Takedown	Group 2: Creation of Ostomy	Group 3: Segmental Colectomy	Group 4: Abdominal Peritoneal Resection (APR)
Baseline Median LOS	2.0	5.5	4.0	7.0
Post-intervention Median LOS	2.3	5.2	3.2	5.2
Post-Adjustment Median LOS	2.3	5.2	3.2	5.4

c. Did the adjustment(s) produce the expected improvement toward meeting the project's specific aim (item 11.a)?

As indicated in the chart above, post-adjustment median LOS remained largely unchanged from the post-intervention medians, except for a slight increase in APR median LOS.

**H. Readjust**

**26. Post-adjustment data review and further planning. Who was involved in reviewing the post-adjustment data, identifying underlying (root) causes of problem(s) resulting in these new data, and considering possible interventions (“countermeasures”) to address the causes? (Briefly describe the following.)**

**a. Who was involved?** (e.g., by profession or role)

Same as #19?     Different than #19 (describe):

**b. How?** (e.g., in a meeting of clinic staff)

Same as #19?     Different than #19 (describe):

**c. When?** (e.g., date(s) when post-adjustment data were reviewed and discussed) Data was reviewed using the CDI collection methods on 2/26/2021

**Use the following table to outline the next plan that was developed: #27 the primary causes, #28 the adjustments/second intervention(s) that addressed each cause, and #29 who would carry out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at <http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation> in section 2a.**

*Note: Adjustments(s) may result in performance achieving the targeted specific aims and the review of post-adjustment data identifies no further causes that are feasible or cost/effective to address. If so, the plan for a next cycle could be to continue the interventions/adjustments currently implemented and check that performance level(s) are stable and sustained through the next observation period.*

27. What were the primary underlying/root causes for the <u>problem(s)</u> following the <u>adjustment(s)</u> that the project can address?	28. What further adjustments/ intervention(s) might address this cause?	29. Who would be involved in carrying out each further adjustment/intervention? (List the professions/roles involved.)
We struggled with the care management/multi team checklist. This was later incorporated into another project with our Clinical Design and Innovation and Care Management groups, who developed a road to discharge flow sheet. These initiatives are piloting now and we have not been able to analyze results yet.	Other teams will be further addressing the checklist. Further integration into the discharge flow sheets may be of more help. We will help investigate the possibility of integrating the checklist into the discharge flow sheets.	Clinical Design and Care Management teams and Physician Assistants

*Note: If additional causes were identified that are to be addressed, insert additional rows.*

**30. Are additional PDCA cycles to occur for this specific performance effort?**

- No further cycles will occur.
- Further cycles will occur, but will not be documented for MOC. *If checked, summarize plans:*

## I. Minimum Participation for MOC

### 31. Participating directly in providing patient care.

**a. Did any individuals seeking MOC participate directly in providing care to the patient population?**

- Yes     No *If "No," go to item #32.*

**b. Did these individuals participate in the following five key activities over the two cycles of data-guided improvement?**

- Reviewing and interpreting baseline data, considering underlying causes, and planning intervention as described in item #12.
- Implementing interventions described in item #14.
- Reviewing and interpreting post-intervention data, considering underlying causes, and planning intervention as described in item #19.
- Implementing adjustments/second interventions described in item #21.
- Reviewing and interpreting post-adjustment data, considering underlying causes, and planning intervention as described in item #26.

- Yes     No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 33.*

### 32. Not participating directly in providing patient care.

**a. Did any individuals seeking MOC not participate directly in providing care to the patient population?**

- Yes     No *If "No," go to item 33.*

**b. Were the individual(s) involved in the conceptualization, design, implementation, and assessment/evaluation of the cycles of improvement? (E.g., a supervisor or consultant who is involved in all phases, but does not provide direct care to the patient population.)**

- Yes     No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 33. If "No," continue to #32c.*

**c. Did the individual(s) supervise residents or fellows throughout their performing the entire QI effort?**

- Yes     No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 33.*

**33. Did this specific QI effort have any additional participation requirement for MOC? (E.g., participants required to collect data regarding their patients.)**

- Yes     No *If "Yes," describe:*

*Individuals who want their participation documented for MOC must additionally complete an attestation form, confirming that they met/worked with others as described in this report and reflecting on the impact of the QI initiative on their practice or organizational role. Following approval of this report, the UMHS QI MOC Program will send to participants an email message with a link to the online attestation form.*

## J. Sharing Results

### 34. Are you planning to present this QI project and its results in a:

- Yes  No Formal report to clinical leaders?
- Yes  No Presentation (verbal or poster) at a regional or national meeting?
- Yes  No Manuscript for publication?

## K. Project Organizational Role and Structure

### 35. UMHS QI/Part IV MOC oversight – indicate whether this project occurs within UMHS, AAVA, or an affiliated organization and provide the requested information.

- University of Michigan Health System**
- Overseen by what UMHS Unit/Group? (*name*): UH/CVC
  - Is the activity part of a larger UMHS institutional or departmental initiative?
    - No  Yes – the initiative is (*name or describe*):
- Veterans Administration Ann Arbor Healthcare System**
- Overseen by what AAVA Unit/Group? (*name*):
  - Is the activity part of a larger AAVA institutional or departmental initiative?
    - No  Yes – the initiative is:
- An organization affiliated with UMHS to improve clinical care**
- The organization is (*name*):
  - The type of affiliation with UMHS is:
    - Accountable Care Organization** (*specify which member institution*):
    - BCBSM funded, UMHS lead state-wide Collaborative Quality Initiative** (*specify which*):
    - Other** (*specify*):