

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

Improving Handoffs from the ED to the Medical Observation Service

Instructions

Determine eligibility. Before starting to complete this report, go to the UMHS MOC website [ocpd.med.umich.edu], 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 UMHS 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 1-20.) Staff from the UMHS 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:

R. Van Harrison, PhD, UMHS Part IV Program Co-Lead, 734-763-1425, rvh@umich.edu

J. Kin, MHA, JD, UMHS Part IV Program Co-Lead, 734-764-2103, jkin@umich.edu

Ellen Patrick, UMHS Part IV Program Administrator, 734-936-9771, partivmoc@umich.edu

Report Outline

Section	Items
A. Introduction	1-6. Current date, title, time frame, key individuals, participants, funding
B. Plan	7-10. Patient population, general goal, IOM quality dimensions, ACGME/ABMS competencies 11-13. Measures, baseline performance, specific aims 14-17. Baseline data review, underlying (root) causes, interventions, who will implement
C. Do	18. Intervention implementation date
D. Check	19-20. Post-intervention performance
E. Adjust – Replan	21-24. Post-intervention data review, underlying causes, adjustments, who will implement
F. Redo	25. Adjustment implementation date
G. Recheck	26-28. Post-adjustment performance, summary of individual performance
H. Readjust plan	29-32. Post-adjustment data review, underlying causes, further adjustments, who will implement
I. Reflections & plans	33-37. Barriers, lessons, best practices, spread, sustain
J. Participation for MOC	38-40. Participation in key activities, other options, other requirements
K. Sharing results	41. Plans for report, presentation, publication
L. Organization affiliation	42. 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*): 1/17/2018

2. **Title of QI effort/project** (*also insert at top of front page*): Improving Handoffs from the ED to the Medical Observation Service

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 #14c*): 1/27/2016

 - 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 #29c*): 1/18/2017

4. Key individuals

- a. **QI project leader** [*also responsible for confirming individual's participation in the project*]
Name: Jason J. Ham, M.D.
Title: Clinical Assistant Professor
Organizational unit: Dept. of Internal Medicine
Phone number: 734-615-4806
Email address: jasham@med.umich.edu
Mailing address: Dept. of Internal Medicine, 1500 E. Medical Center Drive, Ann Arbor, MI 48109-5301

- b. **Clinical leader who oversees project leader regarding the project** [*responsible for overseeing/"sponsoring" the project within the specific clinical setting*]
Name: Denege Ward, M.D.
Title: Assistant Professor
Organizational unit: Dept. of Internal Medicine
Phone number: 734-936-5582
Email address: corey@med.umich.edu
Mailing address: Dept. of Internal Medicine, 1500 E. Medical Center Drive, Ann Arbor, MI 48109-5301

5. Participants

- a. **Approximately how many health care providers (by training level for physicians) participated in this QI effort** (*whether or not for MOC*):

Profession	Number (<i>fill in</i>)
Practicing Physicians	20
Residents/Fellows	0
Physicians' Assistants	10
Nurses (APNP, NP, RN, LPN)	10NP
Other Licensed Allied Health (e.g., PT/OT, pharmacists, dieticians, social workers)	0

b. Approximately how many physicians (by specialty/subspecialty and by training level) and physicians’ assistants participated for MOC?

Profession	Specialty/Subspecialty (fill in)	Number (fill in)
Practicing Physicians	Internal Medicine/Family Medicine/ Emergency Medicine	10
Fellows		
Residents		
Physicians’ Assistants	(Not applicable)	1 PA

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 admitted to the Medical Observation Service (MOS) from the Emergency Department at the University of Michigan Health System. Patients were unscheduled ED admissions, >17yrs of age and estimated to have a Length of Stay < 2 Midnights.

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)?
Handoffs from ED Providers to Hospitalist Providers on the Medical Observation Service (MOS) should be safe, timely and efficient.
- (2) What is occurring now and why is this a concern (costs/harms)?
ED Provider to Hospitalist Provider handoff time is too long due to variable communication and variable documentation of essential information during the handoff. Hospitalist Providers document patient information communicated from ED Providers during the handoff in an *ad hoc* manner. This variability results in unnecessarily prolonged duration of handoffs, rework, potential safety concerns, and provider dissatisfaction.

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 #13.)
Improve handoffs from the Emergency Department to the Medical Observation Service.

9. Which Institute of Medicine Quality Dimensions are addressed? [Check all that apply.]
(<http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf>)

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Effectiveness | <input type="checkbox"/> Equity | <input checked="" type="checkbox"/> Safety |
| <input checked="" type="checkbox"/> Efficiency | <input type="checkbox"/> Patient-Centeredness | <input checked="" type="checkbox"/> Timeliness |

10. Which ACGME/ABMS core competencies are addressed? (Check all that apply.)
(<http://www.abms.org/board-certification/a-trusted-credential/based-on-core-competencies/>)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Patient Care and Procedural Skills | <input type="checkbox"/> Medical Knowledge |
| <input checked="" type="checkbox"/> Practice-Based Learning and Improvement | <input checked="" type="checkbox"/> Interpersonal and Communication Skills |
| <input type="checkbox"/> Professionalism | <input checked="" type="checkbox"/> Systems-Based Practice |

11. 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 of time (in minutes) from ED Provider to Hospitalist Provider Handoff
- **Measure component** – For patients seen during a time period (equivalent to the “denominator” or “patients included” in other measures), the midpoint of all of the durations of time (in minutes) from the beginning of the Handoff (Step 1) until the end of the Handoff (Step 2).
- **The source of the measure is:**
 - An external organization/agency, which is (name the source):
 - Internal to our organization and it was chosen because (describe rationale): It best approximates the measure with less influence from outliers. Data are readily available.
- **This is a measure of:**
 - Process – activities of delivering health care to patients
 - Outcome – health state of a patient resulting from health care

12. Baseline performance

a. **What were the beginning and end dates for the time period for baseline data on the measure(s)?** 9/1/2015 – 12/31/2015

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.

Median of time from ED Provider to Hospitalist Provider Handoff = 40 minutes
See Also Attached Data Table and Chart.

13. 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].”

We will decrease the Median handoff time from a baseline of 40 minutes to 30 minutes by 4/30/2017.

- b. How were the performance targets determined, e.g., regional or national benchmarks?**
Performance target was set by local clinical leaders within the Department of Internal Medicine, based on their assessment of feasibility.

14. 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, Advanced Practice Professionals (PAs/NPs)
- b. How?** (e.g., in a meeting of clinic staff) Emails, Meetings
- c. When?** (e.g., date(s) when baseline data were reviewed and discussed)
1/27/2016: Considered Problem, Reviewed baseline Data
2/04/2016: Identified Ideal Standards for Handoff
3/10/2016: Voted on Standards used in Handoff

Use the following table to outline the plan that was developed: #15 the primary causes, #16 the intervention(s) that addressed each cause, and #17 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:

Common Causes	Common Relevant Interventions
<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>

15. What were the primary underlying/root causes for the problem(s) at baseline that the project can address?	16. What intervention(s) addressed this cause?	17. Who was involved in carrying out each intervention? (List the professions/roles involved.)
No agreed upon standard for handoff information leads to variable documentation. Variable documentation of high value information during admission handoffs causes prolonged ED to MOS handoff times	Developed a consensus on elements necessary for standard handoff Developed an Admission Handoff Template with standard handoff elements	Physicians, Advanced Practice Professionals (PAs/NPs)
	Educated and reinforced the value of using the Admission Handoff Template by regular email	Project Lead, and individual MOC participant team members

	reminders, provider group meetings, and face to face reminders	
--	--	--

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

C. Do

18. By what date was (were) the intervention(s) initiated? (If multiple interventions, date by when all were initiated.)
5/05/2016

D. Check

19. Post-intervention performance measurement. Are the population and measures the same as those for the collection of baseline data (see items 10 and 11)?

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

20. Post-intervention performance

a. What were the beginning and end dates for the time period for post-intervention data on the measure(s)? 6/01/2016 – 12/31/2016

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.

Median of time from ED Provider to Hospitalist Provider Handoff = 33 Minutes
See Also Attached Data Table and Chart

c. Did the intervention(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)? We achieved significant improvement over baseline, but did not meet the specific aim of 30 minutes.

E. Adjust – Replan

21. 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 #14? Different than #14 (describe):

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

Same as #14? Different than #14 (describe):

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

1/18/2017

Use the following table to outline the next plan that was developed: #22 the primary causes, #23 the adjustments(s)/second intervention(s) that addressed

each cause, and #24 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.

22. What were the primary underlying/root causes for the <u>problem(s)</u> following the <u>intervention(s)</u> that the project can address?	23. What adjustments/second intervention(s) addressed this cause?	24. Who was involved in carrying out each adjustment/second intervention? (List the professions/roles involved.)
Not all providers were using the template	Reached out to providers not using the template--some worked off shifts; others were new providers. These individuals were contacted via emails and engaged through direct, face-to-face discussions	Project Lead and MOC team members

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

F. Redo

25. By what date was (were) the adjustment(s)/second intervention(s) initiated? (If multiple interventions, date by when all were initiated.) 1/18/2017

G. Recheck

26. Post-adjustment performance measurement. Are the population and measures the same as indicated for the collection of post-intervention data (item #21)?

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

27. Post-adjustment performance

a. What were the beginning and end dates for the time period for post-adjustment data on the measure(s)? 2/01/2017 – 4/30/2017

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.

Median of time from ED Provider to Hospitalist Provider Handoff = 32 minutes

See Also Data Table and Graph

- c. Did the adjustment(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)? We continued to improve, but did not quite meet the project’s specific aim of 30 minutes.

28. Summary of individual performance

- a. Were data collected at the level of individual providers so that an individual’s performance on target measures could be calculated and reported?
 Yes No – go to item 29.

H. Readjust

- 29. 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 #21? Different than #21 (describe):
- b. How? (e.g., in a meeting of clinic staff)
 Same as #21? Different than #21 (describe):
- c. When? (e.g., date(s) when post-adjustment data were reviewed and discussed)
 6/01/2017

Use the following table to outline the next plan that was developed: #30 the primary causes, #31 the adjustments(s)/second intervention(s) that addressed each cause, and #32 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.

30. What were the primary underlying/root causes for the <u>problem(s)</u> following the <u>adjustment(s)</u> that the project can address?	31. What further adjustments/ intervention(s) might address this cause?	32. Who would be involved in carrying out each further adjustment/intervention? (List the professions/roles involved.)
A few providers still not using templates	Again reach out to all providers not using the template via email or direct, provider to provider contact.	Project Lead and MOC participant team members
Other remaining root causes contributing to delays in the handoff process included interruptions and multitasking (the need for providers to handle	Further interventions remain to be developed as a part of future QI projects.	A new QI Team charged with the next phase of work.

multiple admission requests simultaneously).		
--	--	--

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

33. 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:*
- Further cycles will occur and are to be documented for MOC. *If checked, contact the UM Part IV MOC Program to determine how the project's additional cycles can be documented most practically.*

I. Reflections and Future Actions

33. Describe any barriers to change (i.e. problems in implementing interventions listed in #16 and #23) that were encountered during this QI effort and how they were addressed.

Implementation of a Q/I project in a 24/7 operation presents unique implementation challenges. It is difficult to reach members of all working shifts to build consensus around standards and to educate on new processes. This is best done using multiple formats such as email and meetings---but face to face meetings work best.

34. Describe any key lessons that were learned as a result of the QI effort.

- The creation of standard communication elements organized in a handoff template can result in a nearly 10 minute, or 25% improvement in the time to perform a handoff. Extrapolated over a years' time, this could save approximately 1,333 hours of provider time for the Medical Observation Service. Standardization of elements to be communicated should also mitigate potential safety risks.
- A continuous and sustained educational effort during all working shifts is required for a QI project to succeed in a 24/7 clinical operation.

35. Describe any best practices that came out of the QI effort.

Using locally derived, consensus driven standards for handoffs and placing them in a template can markedly reduce the duration and improve the efficiency of handoffs.

36. Describe any plans for spreading improvements, best practices, and key lessons.

Incorporation of the process into new employee orientations

Sharing of the project with other services

Sharing of the project with Leaders of Capacity Management teams

Sharing of the project with Society of Hospital Medicine members

Consideration of more integrated handoff communication between ED and other Receiving Services

37. Describe any plans for sustaining the changes that were made.

Incorporation of the process into new employee orientations

J. Minimum Participation for MOC**38. 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 #39.*

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 #14.
- Implementing interventions described in item #16.
- Reviewing and interpreting post-intervention data, considering underlying causes, and planning intervention as described in item #21.
- Implementing adjustments/second interventions described in item #23.
- Reviewing and interpreting post-adjustment data, considering underlying causes, and planning intervention as described in item #29.

Yes No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 40.*

39. 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 40.*

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 # 40. If "No," continue to #39c.*

c. Did the individual(s) supervising 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 # 40.*

40. 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.

K. Sharing Results

41. 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?

L. Project Organizational Role and Structure

42. 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): Department of Internal Medicine, Division of Hospital Medicine

• **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):

