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

Improving Physician Adherence to Clinic Time-out Procedures

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	
A. Introduction	1-6.	Current date, title, time frame, key individuals, participants, funding
B. Plan	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
C. Do	16.	Intervention implementation date
D. Check	17-18.	Post-intervention performance
E. Adjust – Replan	19-22.	Post-intervention data review, underlying causes, adjustments, who will implement
F. Redo	23.	Adjustment implementation date
G. Recheck	24-26.	Post-adjustment performance, summary of individual performance
H. Readjust plan	27-30.	Post-adjustment data review, underlying causes, further adjustments, who will implement
I. Participation for MOC	31-33.	Participation in key activities, other options, other requirements
J. Sharing results	34.	Plans for report, presentation, publication
K. Organization affiliation	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):* 8/6/19

2. **Title of QI effort/project** *(also insert at top of front page)***:** Improving physician adherence to clinic time-out procedures

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):* 8/1/17

   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 #27c)*: 8/15/19

4. **Key individuals**

   a. **QI project leader** *[also responsible for confirming individual's participation in the project]*
   Name: Jennifer Weizer, MD
   Title: Assoc.Prof. of Ophthalmology and Visual Sciences
   Organizational unit: Dept. of Ophthalmology, Michigan Medicine
   Phone number: 734-936-9503
   Email address: jweizer@med.umich.edu
   Mailing address: 1000 Wall St, Ann Arbor, MI 48105

   b. **Clinical leader who oversees project leader regarding the project** *[responsible for overseeing/"sponsoring" the project within the specific clinical setting]*
   Name: Shahzad Mian, MD
   Title: Vice-Chair for Clinical Sciences and Learning in Ophthalmology and Visual Sciences
   Organizational unit: Dept. of Ophthalmology
   Phone number: 734-763-8122
   Email address: smian@med.umich.edu
   Mailing address: 1000 Wall St., Ann Arbor, MI 48105

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
Practicing physicians	Ophthalmology		80
Residents/Fellows	Ophthalmology		32
Physicians' Assistants	(N/A)	(N/A)	

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)***:** All clinic patients seen in the Michigan Medicine Ophthalmology Department, procedural and non-procedural

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)?
Ophthalmologists and optometrists who perform clinic procedures in the Ophthalmology Department should be verifying specific information in a 6-point time-out prior to each procedure. This helps ensure that the correct procedure is being performed on the correct patient and site.

While non-procedural patients may not be at the same level of risk as patients undergoing procedures, non-procedural patients should have name and birthdate confirmed each time they are seen by a different provider during each clinic visit (for example, by tech, resident, and attending) to avoid potentially harmful errors caused by misidentification of patients.

(2) What is occurring now and why is this a concern (costs/harms)?
The rate of ophthalmologists and optometrists performing a complete time-out prior to each clinic procedure is below the 100% consistent target rate that is expected by the Michigan Medicine Office of Clinical Safety. That raises the risk that an unintended clinic procedure might be performed on the wrong patient or site.

Similarly, the rate of "two-point" checks (Name and Date of Birth) for non-procedural patients is below the department's standard of 100%.

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.)
Improve adherence to the complete 6-point time-out prior to each clinic procedure performed in the Ophthalmology Department. Improve adherence to a 2-point check for non-procedural patients seen in clinic.

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 . . .)***:**

- **Measure components** – *describe the:*
  Denominator *(e.g., for percent, often the number of patients eligible for the measure)*:

  Numerator *(e.g., for percent, often the number of those in the denominator who also meet the performance expectation)*:

Clinical Procedures Time-out Rate: One set of six measures (6-point time out for procedures) will apply to physicians who perform clinic procedures. An impartial observer will audit the time-outs for each provider. The observer will assess whether each of the 6 points of the time-out was completed

Denominator for each of these six measures: Number of observations of patients undergoing a procedure.

The respective measure names and numerators are:

1. % patients undergoing procedures with patient name confirmed
   Numerator: Number of these patients with patient name confirmed
2. % patients undergoing procedures with patient birth date confirmed
   Numerator: Number of these patients with patient birth date confirmed
3. % patients undergoing procedures with correct procedure confirmed
   Numerator: Number of these patients with correct procedure confirmed
4. % patients undergoing procedures with correct eye(s) confirmed
   Numerator: Number of these patients with correct eye(s) confirmed
5. % patients undergoing procedures with procedure plan in the previous note confirmed
   Numerator: Number of these patients with procedure plan in the previous note confirmed
6. % patients undergoing procedures with correct procedure eye(s) initialed
   Numerator: Number of these patients with correct procedure eye(s) initialed

Non-Procedural 2-point Check: Another set of two measures (2-point check for non-procedure patients) will apply to physicians who do not perform clinic procedures. An impartial observer will audit the checks for each provider. The observer will assess whether each of the checks was completed

Denominator for both of these measures: Number of observations of patients not undergoing a procedure.

The respective measure names and numerators are:

7. % patients not undergoing procedures with patient name confirmed
   Numerator: Number of these patients with patient name confirmed
8. % patients not undergoing procedures with patient birth date confirmed
   Numerator: Number of these patients with patient birth date confirmed

- **For all measures, the source of the measure is:**
  - ☐ An external organization/agency, which is *(name the source, e.g., HEDIS)*:
  - ☒ Internal to our organization
- **For all measures, this is a measure of:**
  - ☒ Process – activities of delivering health care to patients
  - ☐ Outcome – health state of a patient resulting from health care

10. Baseline performance

a. What were the beginning and end dates for the time period for baseline data on the measure(s)? 8/1/17 to 3/31/18

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.*

The Clinical Procedures "perfect score" rate for the baseline period was 87.9%. Adherence to individual checklist items was as follows:

Performance Measures	Baseline 8/1/17 – 3/31/18
Performing Clinical Procedures	(N = 55)
Patient name	98.2%
Patient DOB	96.4%
Procedure	100%
Correct Eye	100%
Eye initialed	94.5%
Previous notes confirmed	96.4%
Not Performing Clinical Procedures	(N = 17)
Patient name	94.1%
Patient DOB	94.1%

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]."*
We aimed to improve adherence to the checklist items from the baseline levels noted above to 100% for all clinic procedures and non-procedural office visits by the completion of this project (August 2019).

b. How were the performance targets determined, e.g., regional or national benchmarks?
The Michigan Medicine Office of Clinical Safety requires a checklist adherence rate of 100%.

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, observers

b. **How?** *(e.g., in a meeting of clinic staff)* Safety committee meetings to discuss results were held every 6 weeks (ongoing). Information was shared during monthly M&M conferences and monthly faculty meetings. E-mail communication was used as well.

c. **When?** *(e.g., date(s) when baseline data were reviewed and discussed)*
Safety committee meetings to discuss results and resultant emails sent to the project participants: 10/30/17, 12/11/17, 1/29/18, 4/30/18

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:*

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

13. What were the primary underlying/root causes for the <u>problem(s) at baseline</u> that the project can address?	**14. What intervention(s) addressed this cause?**	**15. Who was involved in carrying out each intervention?** *(List the professions/roles involved.)*
Providers not aware of new time-out expectations	Education: Reviewed new expectations (previously done) with reminders in current meetings about need to do consistently.	Physicians, safety committee
Providers forget to complete all items in the time out	Visual Aids: Time-out reminder cards posted in each procedure room (6 checks); Reminder cards and MiChart (EHR) reminders posted in non-procedure exam rooms (2 checks)	Physicians, safety committee
People forget to complete all items in the time out	Immediate feedback: Observers performing audits also give feedback shortly after observation	Physicians, observers

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 initiate*d.) 4/1/18

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 <u>post-intervention</u> data on the measure(s)? 4/1/18 to 10/15/18

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.*

Performance Measures	Baseline 8/1/17 – 3/31/18	Post-Intervention 4/1/18 to 10/15/18
Performing Clinical Procedures	(N = 55)	(N = 41)
Patient name	98.2%	97.6%
Patient DOB	96.4%	97.6%
Procedure	100%	97.6%
Correct Eye	100%	100%
Eye initialed	94.5%	92.7%
Previous notes confirmed	96.4%	100%
Not Performing Clinical Procedures	(N = 17)	(N = 19)
Patient name	94.1%	100%
Patient DOB	94.1%	100%

c. Did the intervention(s) produce the expected improvement toward meeting the project's specific aim (item 11.a)? Yes, although 100% compliance was not achieved on all items.
Clinical Procedures Timeout Checklist: The "perfect score" rate for the post-intervention phase improved to 92.7% (from 87.9% at baseline). Improvement was seen on two of the six individual checklist items, Patient DOB and Previous notes confirmed.
Non-procedural 2-Point Check: Both measures showed improvement and met the 100% target.

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)*
11/5/18

Use the following table to outline the next plan that was developed: #20 the primary causes, #21 the adjustments(s)/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.

20. What were the primary underlying/root causes for the problem(s) following the intervention(s) that the project can address?	**21. What adjustments/second intervention(s) addressed this cause?**	**22. Who was involved in carrying out each adjustment/second intervention?** *(List the professions/roles involved.)*
Providers still forget to complete all items in the time out	Immediate feedback: Observers performing audits continue to give feedback shortly after observation Other feedback: reports presented via email newsletters, at M&M conferences, and at faculty meetings	Physicians, observers

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 initiate*d.) 12/1/18

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)? 1/1/19 to 7/18/19

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.*

Performance Measures	Baseline 8/1/17 – 3/31/18	Post-Intervention 4/1/18 to 10/15/18	Post-Adjustment 1/1/19 to 7/18/19
Performing Clinical Procedures	(N = 55)	(N = 41)	(N = 39)
Patient name	98.2%	97.6%	97.4%
Patient DOB	96.4%	97.6%	97.4%
Procedure	100%	97.6%	100%
Correct Eye	100%	100%	100%
Eye initialed	94.5%	92.7%	97.4%
Previous notes confirmed	96.4%	100%	100%
Not Performing Clinical Procedures	(N = 17)	(N = 19)	(N = 17)
Patient name	94.1%	100%	100%
Patient DOB	94.1%	100%	100%

c. Did the adjustment(s) produce the expected improvement toward meeting the project's specific aim (item 11.a)? Yes, improvement continued post-adjustment.
Two categories of the Clinic Procedures checklist (Procedure, Eye initialed) showed improvement, while others sustained their high score. The "'perfect score" rate rose to 94.9% (compared to 87.9% at baseline and 92.7% post-intervention).
The two Not Performing Clinical Procedures measures sustained at 100%.

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)* 8/15/19

Use the following table to outline the next plan that was developed: #27 the primary causes, #28 the adjustments(s)/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> <u>following the 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.)*
Providers still forget to complete all items in the time out	Reminders to maintain and continue adherence to the time out	Physicians, safety committee members

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 # 38.*

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 # 38. If "No," continue to #37c.*

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 # 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):* Kellogg Eye Center
- **Is the activity part of a larger UMHS institutional or departmental initiative?**

☐ No ☒ Yes – the initiative is *(name or describe*): Two-factor patient identifiers for all patient encounters

☐ **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):*