

QI Project Application/Report for Part IV MOC Eligibility

A. Introduction

1. Date (*this version of the application*):

10/14/2013

2. Title of QI project:

Improving Diabetic Foot evaluation rates in UMHS Family Medicine Clinics

3. Time frame

a. At what stage is the project?

- Design is complete, but not yet initiated
 Initiated and now underway
 Completed (*UMHS Part IV program began 1/1/11*)

b. Time period

(1) **Date physicians begin participating (may be in design phase):** 08/28/2013

(2) **End date:** actual _____ expected _11/30/2013_____

4. QI project leader [*responsible for attesting to the participation of physicians in the project*]:

a. Name: David Serlin

b. Title: Assistant Professor, Associate Chair for Clinical Programs

c. Institutional/organizational unit/affiliation: University of Michigan Medical School

d. Phone number: 734 6152688

e. Email address: dserlin@med.umich.edu

f. Mailing address: 1801 Briarwood Circle Ann Arbor, MI 48108

5. What specialties and/or subspecialties are involved in this project?

Family Medicine

6. Will the funding and resources for the project come only from internal UMHS sources?

- Yes, only internal UMHS sources
 No, funding and/or resources will come in part from sources outside UMHS,
 which are: _____

The Multi-Specialty Part IV MOC Program requires that projects engage in change efforts over time, including at least three cycles of data collection with feedback to physicians and review of project results. Some projects may have only three cycles while others, particularly those involving rapid cycle improvement, may have several more cycles. The items below are intended to provide some flexibility in describing project methods. If the items do not allow you to reasonably describe the methods of your specific project, please contact the UMHS Part IV MOC Program office.

B. Plan

7. General goal

a. Problem/need. What is the “gap” in quality that resulted in the development of this project? Why is this project being undertaken?

Screening for peripheral neuropathy is an important part of the management of diabetic patients. Diabetic neuropathy is one of the leading contributors to foot infections and ultimately amputations and other morbidity. Therefore yearly diabetic foot exams are an important quality measure by multiple payors and part of most if not all diabetes guidelines.

In the past, in the department of Family Medicine, we used a population management system, called Cielo, with point of care(POC) prompts to help remind clinicians to perform the diabetic foot exam when one was due. With the implementation of EPICARE (Michart) in August of 2012, Cielo ceased to function. The reminder system within Michart, Best practice advisory (BPA), required a different workflow that up to this point was not developed as a standard workflow. We are now working to develop a standard workflow workflow and monitor adherence to that workflow to improve the rates of foot exams performed and documented.

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

80% of the target patient population will have their diabetic foot exams performed and documented correctly.

8. Patient population. What patient population does this project address.

Adult (age >=18) Diabetic patients that see a UM family physician at one of 5 Family Medicine outpatient clinics.

9. Which Institute of Medicine Quality Dimensions are addressed? [Check all that apply.]

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

10. What is the experimental design for the project?

- Pre-post comparisons (baseline period plus two or more follow-up measurement periods)
 Pre-post comparisons with control group
 Other: _____

11. Baseline measures of performance:

a. What measures of quality are used? If rate or %, what are the denominator and numerator?

% of patients from the above patient population that have a diabetic foot exam performed and recorded in Michart, as a Health Maintenance Modifier, in the last 365 days.
 Numerator is # of patients that have had the diabetic foot exam done and documented properly in the last 365 days. Denominator is the total number of diabetic patients fitting the above patient population.

b. Are the measures nationally endorsed? If not, why were they chosen?

While tracking the % of diabetic patients that are current with their diabetic foot exam is not a HEDIS measurement, it is an NCQA recognized quality metric.

c. What is the source of data for the measure (e.g., medical records, billings, patient surveys)?

Data is drawn from a Michart report developed specifically to inform this intervention.

d. What methods were used to collect the data (e.g., abstraction, data analyst)?

UM Quality Management Program working in collaboration with Family Medicine and the Mi-Chart report writing team developed a data report that reflects performance on foot exam rates for eligible patients.

e. How reliable are the data being collected for the purpose of this project?

The foot exam data are accurate so long as the information is recorded in the medical record in the manner by which it can be tracked electronically. However, the attribution of a patient to a particular site or department may not be completely accurate due to inaccuracy of the "PCP" data field in the medical record. The accuracy of this field in the medical record is outside the scope of

this project. Additionally, this inaccuracy is likely to remain stable over the time frame of this QI intervention, therefore the comparisons of baseline to intervention should be accurate.

- f. How are data to be analyzed over time, e.g., simple comparison of means, statistical test(s)?**
Simple comparison of % over time from baseline through 2 interventions.

- g. To whom are data reported?**

Family Medicine taskforce working on the project, which includes clinical faculty and representation from each of the 5 clinics. They will then disseminate the data to the entire faculty and clinical staff.

- h. For what time period is the sample collected for baseline data?**

July 1, 2012 to June 30th, 2013

12. Specific performance objectives

- a. What is the overall performance level(s) at baseline?** (*E.g., for each measure: number of observations or denominator, numerator, percent. Can display in a data table, bar graph, run chart, or other method. Can show here or refer to attachment with data.*)
See attached Table (last page), which includes baseline data.
- b. Specific aim: What is the target for performance on the measure(s) and the timeframe for achieving the target?** 80% of diabetic patients cared for by Family Medicine will be up to date with their foot exam by the end of the intervention period 11/30/2013
- c. How were the performance targets determined, e.g., regional or national benchmarks?**
NCQA benchmarks

13. Data review and identifying underlying (root) causes.

- a. Who will be/was involved in reviewing the baseline data, identifying underlying (root) causes of the problem(s), and considering possible interventions (“countermeasures”) to address the causes? Briefly describe who is involved, how (e.g., in a meeting of clinic staff), and when.**

Dr. David Serlin and a team comprised of 1 physician from each of our health centers, as well as panel managers and other applicable support staff designs the implementation (done). All department physicians review the plan and participate in the education session or by email after, and all physicians participate in the intervention. This plan review occurred at our faculty meeting on August 28th, 2013.

- b. What are the primary underlying/root causes for the problem(s) that the project can address?** (*Causes may be aspects of people, processes, information infrastructure, equipment, environment, etc. List each primary cause separately. How the intervention(s) address each primary underlying cause will be explained in #14.c.*)

- Transition from one POC reminder prompt to a new system without established workflow to perform the diabetic foot exam
- Lack of knowledge/effort on how to correctly document foot exam in a discrete traceable data field
- Physicians not doing the exam due to other competing priorities in dealing with the EHR or due to logistical time constraints of feeling it isn't appropriate in the context of the particular visit.

C. Do

14. Intervention(s).

a. Describe the interventions implemented as part of the project.

- Feedback of performance data to those performing care (8/28/13)
- Educational intervention with the faculty on how to properly document foot exams in Michart.
- Develop/update standard procedures for medical assistants to see if a patient is due for the foot exam (BPA) and how to prepare the patient during the visit (remove shoes and socks, have monofilament available)
- Educate medical assistants regarding these procedures
- Educate medical assistants on initiation of documentation of the foot exam for the physician
- Panel managers review GAP reports to correct errors, and contact patients overdue to schedule appointment or note on upcoming appointment to have it done.

b. How are underlying/root causes (see #13.b) addressed by the intervention(s)? (List each cause, whether it is addressed, and if so, how it is addressed.)

- Temporary loss of POC reminder prompt to perform the diabetic foot exam
BPA prompt has been reconstituted and updated
Medical assistants will prepare the patient by having them remove shoes and socks to help notify providers to perform the exam
- Lack of knowledge/effort on how to correctly document foot exam in a discrete traceable data field
Providers were given an in-service on correct documentation.
Feedback also provided to UM podiatry and endocrinology as well.
Panel Managers reviewed all patients due for foot exam and noted where exam was done and documented in the notes, but not in the health maintenance section and updated HM(traceable data)
- Physicians not doing the exam due to other competing priorities in dealing with the HER
Physicians were educated on the importance of conducting diabetic foot exams
Process to prepare patients by medical assistants has been enhanced to expedite exam

15. Who is involved in carrying out the intervention(s) and what are their roles?

Medical assistants- prepare patients for foot exam (remove shoes and socks, have monofilament), and can queue up/pend order to document in health maintenance. They can also initiate foot exam documentation template.

Providers(physicians and MLP)- perform foot exam, document in note, and document in health maintenance or sign order

Panel managers- Aggressively review patients overdue to update accuracy of PCP, document those exams done in the health maintenance section so it is traceable, and contact patients overdue either through patient portal, phone call or letter, to notify them.

16. The intervention will be/was initiated when? (For multiple interventions, initiation date for each.)

9/16/2013

D. Check

17. Post-intervention performance measurement. Is this data collection to follow the same procedures as the initial collection of data described in #11: population, measure(s), and data source(s)?

Yes No – If no, describe how this data collection

18. Performance following the intervention.

a. The collection of the sample of performance data following the intervention either:

Will occur for the period:

Has occurred for the period: 09/16/2013 – 10/04/2013

b. If the data collection has occurred, what is post-intervention performance level? (E.g., for each measure: number of observations or denominator, numerator, percent. Can display in a data table, bar graph, run chart, or other method. Can show here or refer to attachment with data.)

See attached Table (last page), which includes post-intervention data.

E. Adjust – Replan

19. Review of post-intervention data and identifying continuing/new underlying causes.

a. Who will be/was involved in reviewing the post-intervention data, identifying underlying (root) causes of the continuing/new problem(s), and considering possible adjustments to interventions (“countermeasures”) to address the causes? Briefly describe who is involved, how (e.g., in a meeting of clinic staff), and when.

Dr. David Serlin and a team comprised of 1 physician from each of our health centers, as well as panel managers and other applicable support staff reviewed the post-intervention data demonstrating an impressive improvement in foot exam rates across all 5 of our clinical sites. A detailed review of the data and discussion with the site panel managers demonstrated a large part of this improvement was due to improving data accuracy to capture exams done previously, but not documented properly.

This plan review occurred at our population improvement group meeting on October 16th, 2013.

All department physicians reviewed the data by one of two methods: listening to a presentation at a faculty meeting with opportunity to discuss and give feedback, or reviewing an email summary of the data. Additionally, all physicians participate in the intervention through increased awareness and new staff workflows to promote completion of the foot exam during office visits.

b. What are the primary underlying/root causes for the continuing/new problem(s) that the project can address? (Causes may be aspects of people, processes, information infrastructure, equipment, environment, etc. List each primary cause separately. How the intervention(s) address each primary underlying cause will be explained in #20.c.)

-Patient access: getting patients into the office to have their foot exam done in a timely manner continues to be a problem

-Medical assistant performance remains uneven for preparing the patients for the foot exam and prompting the physicians to perform the foot exam

-Coordinating with specialists that also provide the foot exam to document correctly. This includes podiatrists and endocrinologists within the UM health system.

F. Redo

20. Second intervention.

- a. The second intervention will be/was initiated when?** (For multiple interventions, initiation date for each.)

10/25/2013 – 11/15/2013

- b. If the second intervention has occurred, what interventions were implemented?**

- Discussion with the endocrinologists at their faculty meeting to educate them on the methods and importance of properly documenting their foot exams
- Panel managers notifying patients that they were due for the foot exam on an individual basis and noting in the appointment summary to alert medical assistants and providers
- In some sites, medical assistants performed and documented part of the foot exam to help improve provider efficiency

- c. How are continuing/new underlying/root causes (see #19.b) addressed by the intervention(s)?** (List each cause, whether it is addressed, and if so, how it is addressed.)

- Patient access: Panel managers putting reminders into the visit information, helps the medical assistants and providers remember to do the exam when patients are seen in the office, whether for that purpose or not. By doing the foot exam during any visit, regardless of the complaint, we are improving the foot exam rates and avoiding the access issues over time.
- Teaching our specialty colleagues how to correctly enter the data should have a positive effect going forward to improve exam rates. They were already doing the exam, but not capturing it in a measurable way.
- Lead medical assistants working with medical assistant staff to improve performance on standardized workflow related to job expectations

G. Recheck

- 21. Post-second intervention performance measurement. Is this data collection to follow the same procedures as the initial collection of data described in #11: population, measure(s), and data source(s)?**

Yes No – If no, describe how this data collection

- 22. Performance following the second intervention.**

- a. The collection of the sample of performance data following the intervention(s) either:**

Will occur for the period:

Has occurred for the period: 10/25/2013 – 11/15/2013

- b. If the data collection has occurred, what is the performance level?** (E.g., for each measure: number of observations or denominator, numerator, percent. Can display in a data table, bar graph, run chart, or other method. Can show here or refer to attachment with data.)

See attached Table (last page), which includes post-adjustment data.

H. Readjust

- 23. Review of post-second intervention data and identifying continuing/new underlying causes.**

- a. Who will be/was involved in reviewing the data, identifying underlying (root) causes of the continuing/new problem(s), and considering additional possible adjustments to interventions (“countermeasures”) to address the causes? Briefly describe who is involved, how (e.g., in a meeting of clinic staff), and when.**

Dr. David Serlin and a team comprised of 1 physician from each of our health centers, as well as panel managers and other applicable support staff reviewed the post-intervention data demonstrating an impressive improvement in foot exam rates across all 5 of our clinical sites. A detailed review of the data and discussion with the site panel managers demonstrated a large part of this improvement was due to improving data accuracy to capture exams done previously, but not documented properly. This plan review occurred at our population improvement group meeting on November 20th, 2013. All department physicians will be able to review the data by one of two methods: listening to a presentation at a faculty meeting with opportunity to discuss and give feedback, (late November 2013) or via email. Additionally, all physicians participate in the intervention through increased awareness and new staff workflows to promote completion of the foot exam during office visits.

- b. **What are the primary underlying/root causes for the continuing/new problem(s) that the project can address?** (*Causes may be aspects of people, processes, information infrastructure, equipment, environment, etc. List each primary cause separately.*)
- Due to time constraints for application to ABFM by the end of 2013, our second intervention was only able to be 3 weeks in duration, which meant we were only able to impact a small number of patients due for their foot exam. Despite that, we still saw an overall 2% increase in our target metric. I expect over time with our current process in place, that we will continue to improve slowly as more patients that are due cycle through our clinics.

If no additional cycles of adjustment are to be documented for the project for Part IV credit, go to item #24.

If a few additional cycles of adjustments, data collection, and review are to be documented as part of the project to be documented, document items #20 – #23 for each subsequent cycle. Copy the set of items #20 – #23 and paste them following the last item #23 and provide the information. When the project to be documented for Part IV credit has no additional adjustment cycles, go to item #24.

If several more cycles are included in the project for Part IV credit, contact the UM Part IV MOC Program to determine how the project can be documented most practically.

I. Future Plans

24. How many subsequent PDCA cycles are to occur, but will not be documented as part of the “project” for which Part IV credit is designated? 1 further cycle of PDCA in 4-6 months to reassess for continued improvement.

25. How will the project sustain processes to maintain improvements?

Providers now know how to correctly document the intervention and staff training to assure proper preparation has been completed. We will need to continue to train new providers and staff to maintain our recent gains, and continue to require excellence from them.

26. Do other parts of the organization(s) face a similar problem? If so, how will the project be conducted so that improvement processes can be communicated to others for “spread” across applicable areas?

We will share our best practices with other primary care and specialty disciplines in our institution to help them improve. We are currently performing 10% better than our peers for the foot exam metric and hope they will be able to improve along with us. In addition, the University of Michigan Faculty Group Practice performance improved concurrent to our intervention. This is most likely due to the improvement in Family Medicine but may also be due to some spread of the intervention to other primary care disciplines.

J. Physician Involvement

Note: To receive Part IV MOC a physician must both:

- a. *Be actively involved in the QI effort, including at a minimum:*
 - *Work with care team members to plan and implement interventions*
 - *Interpret performance data to assess the impact of the interventions*
 - *Make appropriate course corrections in the improvement project*
- b. *Be active in the project for the minimum duration required by the project*

27. Physician's role. What are the minimum requirements for physicians to be actively involved in this QI effort?

- a. Interpreting baseline data and planning intervention:
All physicians reviewed the intervention plan and were provided multiple opportunities to give feedback to both the overall intervention team and the site champions and changes were made based on this feedback.
- b. Implementing intervention:
All physicians performing diabetic foot exams received the training on how to correctly document the foot exam so that it was measurable as well as then doing and documenting the exams properly.
- c. Interpreting post-intervention data and planning changes:
All physicians were asked to review the post intervention data and were provided multiple opportunities to give feedback to both the overall intervention team and the site champions on the proposed new interventions and changes were made based on this feedback.
- d. Implementing further intervention/adjustments:
All physicians reviewed the 2nd intervention plan and participated in performing and documenting the diabetic foot exams properly.
- e. Interpreting post-adjustment data and planning changes:
All participating physicians reviewed the final data and plans to continue the current intervention going forward. Physicians provided feedback on the project to help with continuation of this intervention as well as planning for future MOC IV projects.

28. How are reflections of individual physicians about the project utilized to improve the overall project? See question 27 above.

29. How does the project ensure meaningful participation by physicians who subsequently request credit for Part IV MOC participation? All of the participating physicians care for diabetic patients and perform foot exams. We saw a significant improvement in our foot exam rates and through the interventions above, some of which included the physicians directly, we can assure that physicians actively participated. We also required physician acknowledgement and comment on the data/intervention plan to demonstrate that they reviewed the information.

30. What are the specialties and subspecialties of the physician anticipated to participate in the project and the approximate number of physicians in each specialty/subspecialty?

-Family Medicine 50-60 physicians

K. Project Organizational Role and Structure

31. UMHS QI/Part IV MOC oversight – this project occurs within: **University of Michigan Health System**

- **Overseen by what UMHS Unit/Group?**

- **Is the activity part of a larger UMHS institutional or departmental initiative?**

No Yes – the initiative is:

The initiative of the Quality Management Program of the Faculty Group Practice to improve care for patients with diabetes (related to external measures of the quality of care and value-based purchasing / pay-for-performance).

 Veterans Administration Ann Arbor Healthcare System

- **Overseen by what AAVA Unit/Group?**

- **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:**

- **The type of affiliation with UMHS is:**

Accountable Care Organization type (*specify which*):

BCBSM funded, UMHS lead Collaborative Quality Initiative (*specify which*):

Other (*specify*):

- **Who is the individual at UMHS responsible for oversight of the QI project regarding Part IV requirements?**

Name:

Title:

Institutional/organizational unit/affiliation:

Phone number:

Email address:

32. What is the organizational structure of the project? [Include who is involved, their general roles, and reporting/oversight relationships.]**33. To what oversight person or group will project-level reports be submitted for review?**

TABLE. Foot Exam Performed within Past 365 Days for Patients with Diabetes

Site/Group	Baseline <u>6/30/13</u>		Post-Intervention <u>9/16/13-10/4/13</u>		Post-Adjustment <u>10/25/13-11/15/13</u>	
	N Patients	% with foot exam	N Patients	% with foot exam	N Patients	% with foot exams
Site A	817	65%	839	73%	840	72%
Site B	809	56%	828	59%	836	67%
Site C	299	60%	300	76%	304	74%
Site D	452	53%	476	82%	492	81%
Site F.	629	52%	655	61%	671	60%
All Family Medicine (F.M.)	3006	58%	3098	68%	3143	70%

Note: Number of patients is the number with diabetes in the UM Health System’s registry of diabetic patients on the last day of the intervention period. The percent is the number of these patients who, on the last day of the intervention period, have had a diabetic foot exam performed in the previous 365 days.