Report on a QI Project Eligible for Part IV MOC

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. Final confirmation of Part IV MOC for a project occurs when the full report is submitted and approved.

An option for preliminary review (recommended) is to complete a description of activities through the intervention phase and submit the partially completed report. (Complete at least items 1-16 and 27a-b.) 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 and answers should be in regular font (generally immediately below the questions). To check boxes electronically, either put an “X” in front of a box or copy and paste “☒” over the blank box.

For further information and to submit completed applications, contact either:
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QI Project Report for Part IV MOC Eligibility

A. Introduction
1. Date (this version of the report): November 23, 2016

2. Title of QI project: Improving Clinical Management and Communication with Pediatric Diabetes Patients and Caregivers through Utilization of the MiChart Patient Portal

3. Time frame
   a. Date physicians begin participating (may be in design phase): December 1, 2015
   b. End date: November 30, 2016

4. Key individuals
   a. QI project leader [also responsible for attesting to the participation of physicians in the project]
      Name: Joyce Lee, MD, MPH
      Title: Associate Professor
      Organizational unit: Pediatrics-Endocrinology
      Phone number: 734-615-8907
      Email address: joyclee@med.umich.edu
      Mailing address: 300 North Ingalls Building 6E14
   
   b. Clinical leader to whom the project leader reports regarding the project [responsible for overseeing/“sponsoring” the project within the specific clinical setting]
      Name: Ram Menon, MD
      Title: Research Professor
      Organizational unit: Pediatrics-Endocrinology
      Phone number: 734-615-7892
      Email address: rammenon@med.umich.edu
      Mailing address: D1105 Medical Professional Building SPC 5718

5. Approximately how many physicians were involved in this project categorized by specialty and/or subspecialty? Pediatric Endocrinology (11 attending physicians, 1 house officer)

6. Will the funding and resources for the project come only from internal UMHS sources?
   X 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? Regular communication between diabetes patients/caregivers and clinic staff is essential for effective disease management as individuals’ blood glucose data needs to be closely monitored and multiple adjustments of insulin often need to be made throughout childhood and adolescence. The patient portal provides an effective mechanism by which patients/caregivers and clinic staff can communicate. Unfortunately, the majority of diabetes patients followed by the Pediatric Endocrinology Clinic are not enrolled in the portal and are unable to utilize its tools.
   b. Physician’s role. What is the physician’s role related to this problem? Physicians are to address portal enrollment with patients and families who are not currently active on the portal and provide education on the portal’s uses and benefits as well as information on how to enroll.
   c. Project goal. What general outcome regarding the problem should result from this project? To increase portal enrollment and portal utilization by Mott Pediatric Endocrinology Clinic diabetes patients.

8. Patient population. What patient population does this project address. Children and young adults aged 0-25 with diabetes mellitus followed by the Mott Pediatric Endocrinology Clinic.

9. Which Institute of Medicine Quality Dimensions are addressed? [Check all that apply.]
   ☐ Effectiveness  ☑ Equity  ☐ Safety  ☑ Efficiency  ☑ Patient-Centeredness  ☐ Timeliness

10. What is the experimental design for the project?
   X 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?
      There are two metrics:
      1. Percentage of Ped Endo Clinic diabetes patients enrolled in the portal
         Numerator: Pediatric diabetes patients enrolled in the portal (themselves or via a proxy)
         Denominator: Total # of pediatric diabetes patients seen by the clinic in the past year
      2. Percentage of portal users who sent or responded to at least one message to the diabetes team using the portal within the past three months.
         Numerator: Patients who send or replied to a portal message
         Denominator: Pediatric diabetes patients enrolled in the portal (themselves or via a proxy)
   b. Are the measures nationally endorsed? If not, why were they chosen?
      The measures were not nationally endorsed, but they were discussed and vetted by both the pediatric faculty and quality improvement leaders at UMHS.
c. What is the source of data for the measure (e.g., medical records, billings, patient surveys)?
MiChart

d. What methods were used to collect the data (e.g., abstraction, data analyst)?
Data is extracted from patient records using a custom Crystal report

e. For what time period was the sample collected for baseline data?
January 25, 2016

12. Specific performance objectives
a. What was the overall performance level(s) at baseline?
1. Percentage of Ped Endo Clinic diabetes patients enrolled in the portal: 236/1298 = 18.2%
2. Percentage of portal users who sent or responded to at least one message to the diabetes team using the portal within the past three months: 70/236 = 29.7%

b. Specific aim: What was the target for performance on the measure(s) and the timeframe for achieving the target?
1. To increase the percentage of Ped Endo Clinic diabetes patients enrolled in the patient portal, either themselves or via proxy, from 18.2% to 40% by October 31st, 2016.
2. To increase the percentage of patients enrolled in the portal who have sent or responded to at least one message to the diabetes team using the portal within the past three months from 29.7% to 60% by October 31st, 2016.

c. How were the performance targets determined, e.g., regional or national benchmarks?
Because the measures are not national quality measures, we did not have access to regional or national benchmarks.

13. Data review and identifying underlying (root) causes.
a. Who 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 was involved?
     Attending physicians (including Division Director), QI coordinator, administrative assistant
   ● How?
     Meeting of clinic staff
   ● When?
     February 3, 2016

b. What were the primary underlying/root causes for the problem(s) that the project can address?
Barriers to portal adoption:
   ● The existing enrollment process via www.MyUofMHealth.org is time consuming and confusing for pediatric patients/families
   ● Patients/families may not have a computer or internet access; mobile only for some
   ● Patients/families lack education about why the portal would be helpful
   ● Patients/families aren't receiving activation codes when they check out
   ● Parents need to be verified as a guardian (need to make sure it's the correct person)
   ● Providers/CDEs need education on the benefits of the portal for clinicians/staff and the patients/families
   ● Portal rarely comes up during the clinic visit; Need to make better use of waiting time
C. Do

14. Intervention(s). Describe the interventions implemented as part of the project.

In-Clinic Portal Enrollment Process: We connected with Shannon Bellers, Administrative Manager at Health Information Management, about creating a new process to onboard patients/parents to the patient portal while in clinic. Our initial focus was to establish proxy access for parents to access their child’s information. This new process involved the following steps:

1. Clinic staff explains the uses and benefits of the patient portal.
2. If interested, clinic staff must confirm that the accompanying adult is the child’s parent or legal guardian (with proper documentation in MiChart).
3. Clinic staff then attaches child to parent proxy through MiChart.
   a. If parent is not a U-M patient, a non-patient proxy access account must be created in order to link the child.
4. Clinic staff then uses an iPad to help parent proxy create and/or login to their portal account.
5. Once logged in to the portal, parent proxy must accept the attachment of the child’s records.

Screening Form: In an effort to streamline our in-clinic enrollment process, an MA in the clinic suggested that we also implement a ‘screening form.’ We created a portal enrollment form that would be given to patients/parents with their check-in paperwork. The form included the following:

- General overview of patient portal functions and benefits, specifically related to diabetes
- Asked if the parent was interested in signing up for the portal and obtaining proxy access to the child’s records
- If interested, asked parents to fill in some basic information including their MRN and/or Name and DOB (to help with the linking of the child and proxy via MiChart)

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

The intervention was tested by all physicians during their clinic visits with support from CDEs. The physicians were responsible for completing the process outlined above. The CDEs assisted as needed with reviewing the portal enrollment forms and answering questions about the portal and it’s uses.

16. When was the intervention initiated?

April 20, 2016

D. Check

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

X 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 occurred for the time period:

June 17, 2016

b. What was post-intervention performance level?
1. Percentage of Ped Endo Clinic diabetes patients enrolled in the portal: 259/1281 = 20.2%
2. Percentage of portal users who sent or responded to at least one message to the diabetes team using the portal within the past three months: 88/259 = 34.0%
c. Did the intervention produce the expected improvement toward meeting the project’s specific aim (item 12.b)?
   No.

E. Adjust – Replan
   a. Who 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 was involved?
        Attending physicians (including Division Director), QI coordinator, social worker, administrative assistants, CDEs, patient/family advisor
      ● How?
        Meeting of clinic staff
      ● When?
        June 21, 2016 & July 19, 2016
   b. What were the primary underlying/root causes for the continuing/new problem(s) that the project can address?
      We realized that implementing a new process would disrupt existing workflows, but the process was more time consuming than anticipated, especially as the piloting physicians became familiar with the various nuances of the process. Ultimately, we needed to find a way to streamline this new process to better fit into the clinic workflow.

F. Redo
20. Second intervention. What additional interventions/changes were implemented?
   Although the new, in-clinic portal enrollment process was considerably more effective than the passive, user-initiated, web-based process by which patients voluntarily enrolled, it was often difficult for clinic staff to complete the entire process alone given how time consuming it was. Therefore, we provided additional support to clinicians, who could introduce and connect patients to the portal, by training an administrative staff member to complete the enrollment process with an iPad.

21. The second intervention was initiated when?
   August 16, 2016

G. Recheck
22. Post-second intervention performance measurement. Did this data collection follow the same procedures as the initial collection of data described in #11: population, measure(s), and data source(s)?
   X Yes □ No – If no, describe how this data collection

23. Performance following the second intervention.
   a. The collection of the sample of performance data following the intervention(s) occurred for the time period:
      November 2, 2016
b. What was the performance level?
   1. Percentage of Ped Endo Clinic diabetes patients enrolled in the portal: 368/1347 = 27.3%
   2. Percentage of portal users who sent or responded to at least one message to the diabetes team using the portal within the past three months: 118/368 = 32.1%

c. Did the second intervention produce the expected improvement toward meeting the project’s specific aim (item 12.b)?
   Yes.

H. Readjust
   a. Who 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 was involved?
        Attending physicians (including Division Director), QI coordinator, social worker, administrative assistants, CDEs, patient/family advisor
      ● How?
        Meeting of clinic staff
      ● When?
        November 15, 2016
   b. What were the primary underlying/root causes for the continuing/new problem(s) that the project can address?
      We made significantly greater progress during the second cycle with the addition of a trained portal enrollment “champion” in the clinic to support the providers and help with completion of the portal enrollment process. Time and competing priorities during clinic visits will likely remain an issue, but having a designated leader to champion the enrollment efforts has helped us overcome those challenges.

I. Future Plans
25. 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?
   Likely two. We will are planning to test two additional processes to assist with portal enrollment:
   1. In an effort to reach out to our patients/families outside of the clinic setting, we will offer on-location portal enrollment at upcoming events (e.g., JDRF Summit).
   2. As we continue to add new patients to our clinic, on-call physicians will enroll patients/families when patients are admitted for new diabetes diagnoses.

26. How will the project sustain processes to maintain improvements?
   ● All physicians and CDEs have become comfortable discussing the portal and its functions with our patients/families and will continue to do so, promoting not only enrollment, but also usage.
   ● Our portal enrollment “champion” will continue to clinic staff in enrolling patients.
   ● The clinic staff has integrated portal messaging to/from patients/proxies into their workflow.

27. 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?
Yes, we believe the other pediatric specialty clinics experience similar challenges to patient portal enrollment. We plan to work with Jeff Patierno, the Pediatric Multi-Specialty Clinic Manager, to identify and train portal enrollment “champions” in the other clinics.

28. What lessons (positive or negative) were learned through the improvement effort that can be used to prevent future failures and mishaps or reinforce a positive result? This improvement effort has definitely been a learning process. Some notable reflections/lessons learned:

- Clinic staff have had to make adjustments in workflow as they get used to checking/responding to patient portal messages
- Overall, communication via portal messaging is more convenient for staff (reduces call volume, provides more context ahead of time)
- And is also more convenient for patients/families by allowing them to communicate 24/7
- Adding a designated portal “champion” was very helpful
- Working with other departments (e.g., HIM) can be slow
- Barriers still exist among our population (e.g., not all of our families have consistent internet access or technology)

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

29. Physician’s role. What were the minimum requirements for physicians to be actively involved in this QI effort? (What were physicians to do to meet each of the basic requirements listed below? If this project had additional requirements for participation, also list those requirements and what physicians had to do to meet them.)

a. Interpreting baseline data, considering underlying causes, and planning intervention. Physicians had to participate as described in item #13a.

b. Implementing intervention.
   Physicians had to participate as described in items #14, #15, and #16.

c. Interpreting post-intervention data, considering underlying causes, and planning changes.
   Physicians had to participate as described in item #24a.

d. Implementing further intervention/adjustments.
   Physicians had to participate as described in items #20 and #21.

e. Interpreting post-adjustment data, considering underlying causes, and planning changes.
   Physicians had to participate as described in item #24a.

30. How were reflections of individual physicians about the project utilized to improve the overall project? At each of the meetings, physicians provided individual feedback about the difficulties they were having with each stage of the intervention. They provided reflections and personal experiences that helped guide the adjustments and changes to the intervention over time.
31. How did the project ensure meaningful participation by physicians who subsequently request credit for Part IV MOC participation?
Physicians were core to the intervention and were involved in every stage of the process, including formulation, planning, implementation, interpretation of results, adjustment, and reassessment of progress made.

K. Sharing Results
32. Are you planning to present this QI project and its results in a:
   X Yes ☐ No  Formal report to clinical leaders?
   X Yes ☐ No  Presentation (verbal or poster) at a regional or national meeting?
   X Yes ☐ No  Manuscript for publication?

L. Project Organizational Role and Structure
33. UMHS QI/Part IV MOC oversight – this project occurs within:
   X University of Michigan Health System
      • Overseen by what UMHS Unit/Group?
        Pediatric Endocrinology
      • Is the activity part of a larger UMHS institutional or departmental initiative?
        X No ☐ Yes – the initiative is:

   ☐ 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 statewide Collaborative Quality Initiative (specify which):

        ☐ Other (specify):