QI Project Report for Part IV MOC Eligibility

Instructions

This detailed Report should be completed only after the project has been determined to meet requirements for Part IV credit. To determine whether a QI project is eligible for Part IV credit, 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 go over the worksheet with you to explain any adjustments needed to be eligible.

Only a final Report describing the completed project is required. However, submitting an actual description of work through the intervention phase provides a preliminary opportunity to check that the information is sufficiently clear, but not overly detailed. This simplifies completion and review of descriptions of remaining activities.

Complete the project report to apply for UMHS approval for participating physicians to be eligible to receive Part IV MOC credit through the Multi-Specialty Part IV MOC Pilot program. This is a report of activities that were performed in carrying out the project. 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.

**Part IV credit approval.** Baseline data have been collected and the intervention performed, with completion of both steps documented on a report form. The project has demonstrated its operational feasibility and the likelihood that subsequent data collections and adjustment will be performed. (Complete at least items 1-18a, 19a, 20a, 21, 22a, 23a, 27-33.)

The project has been completed with the expected sequence of activities performed and documented on a complete final application, which is the “final report” on the project.

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

A. Introduction

1. Date (this version of the application): 11/1/14

2. Title of QI project: Improvement of ordering LDL tests to increase screening rates for patients with Ischemic Vascular Disease, Diabetes, and Chronic Kidney Disease through use of the Mi-Chart Clinical Decision Support of Health Maintenance Plan and Best Practice Advisory (BPA).

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): 4/21/14
      2) End date: 10/1/2014

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

   Overall Project Facilitator:
   Grant M. Greenberg MD, MA, MHSA, Faculty Group Practice

   Project Manager:
   Paul Paliani, Population Health Office

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5. What specialties and/or subspecialties are involved in this project?
Family Medicine
General Internal Medicine
Endocrinology
Nephrology
Cardiology
Geriatrics

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?

This project was undertaken to:
- Improve a specific aspect of clinical care: LDL testing in patients with diabetes or ischemic vascular disease (IVD)
- Use this effort to develop efficient processes (a) for care shared across multiple specialties and (b) that can be applied to clinical care for other conditions.

Need to increase LDL screening. Previous analyses of current patients (defined as patients with at least 2 visits in the past 2 years, and one visit in the past 13 months) seen at the University of Michigan found annualized LDL screening rates of 78% for patients with diabetes and 75% for patients with IVD. These rates were well below the 75th percentile for HEDIS performance when the project began (90% for Diabetes and 92% for IVD). At the initiation of this project LDL screening was important:
- Clinically to check:
  - Whether treatment was achieving desired levels for lipids
  - Patients were complying with medication regimens (medication continuation was previously found to be below 40%)
- Operationally to meet HEDIS performance standards used as a measure for multiple pay-for-performance programs including Meaningful Use, Blue Cross/Blue Shield Physician Group Improvement Program (PGIP) performance in addition to HEDIS.

Need to develop effective, efficient processes across specialties. Patients with diabetes or IVD are often seen by physicians providing primary care (family medicine, general medicine) and specialty care (cardiology, endocrinology, geriatric medicine, nephrology). Developing a standard process across multiple clinical areas that see this group of patients can improve the quality and efficiency of their care. This includes having clinical care teams develop comfort, familiarity, and precedent for using point-of-care decision support tools within the University of Michigan Electronic Health Record (MiChart) for LDL screening as well as other aspects of care for which decision support has been developed.

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

The two goals were:

Improve LDL screening test rates for patients with Diabetes and IVD. Goal is to improve testing rates for the combined population of patients with Diabetes or IVD to ≥ 92%, which is above the 75th percentile HEDIS benchmark of 90% for diabetes and at the benchmark of 92% for IVD.

Develop more effective and efficient care processes that are shared across several specialties treating patients with diabetes and IVD. This includes determining the feasibility, acceptance, and utilization of these procedures across family medicine, general medicine, cardiology, endocrinology, geriatric medicine, and nephrology.

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

Adult patients (≥ 18 years of age) with an existing diagnosis of Diabetes, Ischemic Vascular Disease, or both, who are seen in ambulatory care clinics of the Department of Family Medicine and the Divisions of Cardiology, Endocrinology, General Medicine, Geriatric Medicine, and Nephrology of the University of Michigan Health Care System.

Note: The only requirement is that a patient be seen during an observation period. No previous visits or pre-existing diagnosis of diabetes or IVD before the visit is required. This definition of a population differs from the definition used to generate annualized rates of LDL testing noted above. The data from this project are not directly comparable to the annualized data because of the differences between populations for which data are collected.
9. Which Institute of Medicine Quality Dimensions are addressed? [Check all that apply.]

- Safety
- Equity
- Effectiveness
- Timeliness
- Efficiency
- 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?

i. Main Measures: LDL testing

a. Percent of patients seen with LDL testing before start of visit
For patients with diabetes or IVD who have an office visit, the % with the LDLC tested within 365 days before the visit.

- Denominator: DM+IVD Patients Seen. Number of patients with Diabetes or IVD who have an office visit within the time period.
- Numerator: Number of patients with an LDL test within 365 days before the day of the visit.

b. Percent of patients seen with LDL testing after visit
For patients with diabetes or IVD who have an office visit, the % who both do not have LDL testing before the start of the visit and have testing on or shortly after the visit day.

- Denominator: DM + IVD Patients Seen. Number of patients with Diabetes or IVD who have an office visit within the time period.
- Numerator: Number of patients without LDL test before the day of the visit and testing on or shortly after the day of the visit.

Note: Operationally, on the 28th day of each month data are collected for LDL testing for patients seen from the 21st day of the previous month through the 21st day of the current month. For this project “shortly after” a visit was defined as between the day of the visit and the next date of the 21st of the month. Therefore, the period could range from 1 to 30 days for an individual, depending on the date of the month on which a visit occurred. Assuming an equal distribution across dates for visit, the mean time between visit and the 21st of the month will be about 15 days. This method of defining “shortly after” has two methodological implications:

- The time period in which a patient is classified as having an LDL test can be up to 390 days, the 365 days before a visit and 1-30 days following a visit. (The “annualized” measure used for other purposes choses an arbitrary period of 365 days to see whether LDL testing was done.)
- The number of tests performed shortly after a visit is slightly underestimated. Patients who have visits just before or on the 21st of the month and have to return on another day to be tested will likely return after the 21st of the month, in which case the test will not be counted.

Although the time period is longer and the absolute level of testing will be slightly underestimated, using this measure consistently throughout the project is adequate to measure the amount of change between time periods.

c. Percent of patients seen with LDL testing either before or after the visit
For patients with Diabetes or IVD who have an office visit, the % who have either LDL testing before the start of the visit or on the day of or shortly after the visit.

- Denominator: DM + IVD Patients Seen. Number of patients with Diabetes or IVD who have an office visit within the time period.
Part IV Maintenance of Certification Program

Numerator: Number of patients with LDL testing before the visit (see “a” above) plus number of patients with testing on or shortly after the visit (see “b” above)

ii. Process Measures: Test ordering by physicians and test completion by patients

a. Percent due for test and LDL test ordered. For patients without LDL testing before the start of the visit, percent for whom a physician ordered an LDL test.
Denominator: Due for LDL test. Number of patients with diabetes or IVD who have an office visit during the measurement period who do not have an LDLC test within 365 days before the office visit.
Numerator: LDL test ordered. Number of these patients for whom a physician ordered LDLC test.

b. Percent with LDL ordered and test was completed: For patients with physician’s order for LDL test, the percent for which patients went to the lab to complete the test.
Denominator: LDL test Ordered. Number of patients with an LDLC test ordered
Numerator: LDL test Completed. Number of these patients who completed LDLC test

c. Percent due for test with completed test:
Denominator: Due for LDL test. Number of patients with diabetes and IVD who have an office visit within the measurement period who do not have an LDLC test within 365 days before the office visit.
Numerator: LDL test Completed. Number of these patients who completed LDLC test

b. Are the measures nationally endorsed? If not, why were they chosen?
Yes, LDL testing for this population is a nationally endorsed, HEDIS 2014 metric.

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

d. What methods were used to collect the data (e.g., abstraction, data analyst)?
Data analysis from electronic health record database

e. How reliable are the data being collected for the purpose of this project?
Data are highly reliable as they are derived from the electronic database for UMHS patients

f. How are data to be analyzed over time, e.g., simple comparison of means, statistical test(s)?
Simple comparison of testing rates.

g. To whom are data reported?
All physicians participating in the project in all specialties, as well as local and institutional leadership.

h. For what time period is the sample collected for baseline data?
4/21/14 – 5/21/14

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.)

Overall LDL testing at baseline is 86%.
Testing rates varied appreciably across specialties, ranging from 71% for specialty 4 to 90% for specialty 5. See Table on the last page of the report for the full set of data by measure and by specialty.

b. Specific aim: What is the target for performance on the measure(s) and the timeframe for achieving the target?
Achieve ≥ 92% LDL screening for patients with either diabetes or IVD by the conclusion of the post-adjustment period for this project, 9/21/14.

c. How were the performance targets determined, e.g., regional or national benchmarks?
Overall LDL Target was determined by 75th Percentile HEDIS benchmark, which is a nationally set metric.

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.
Who: Overall project lead, physician leads for each of the 6 participating clinical leads, physicians practicing in the ambulatory clinics of each of the 6 participating specialties, and program administrators and support personnel.
How:
- The project lead and physician leads met to review baseline data and discuss probable root causes and possible interventions.
- The physician leads then met with physicians in their respective departments and divisions to review the data, discuss root causes, and consider possible interventions.
- The physician leads then reported input from physicians and finalized plans for interventions.
When: The meetings occurred between late May and early June, 2014.

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.)

Continue the project? The baseline data and an event during the baseline data collection period raised questions about the need to perform the study:
- Baseline performance was appreciably higher than expected, limiting the potential to improve testing levels. Instead of a gap of almost 20 percentage points to goal, the gap was only 6 percentage points. Since tests occurring shortly before the 21st of the month may have tests performed after the measurement period, an additional 1%–2% of patients may have been tested and the actual gap may be only 4 to 5 percentage points.
- Testing to check achievement of lipid level targets was no longer recommended. In May UMHS formally endorsed new national recommendations that these patients simply be put on a moderate or high intensity statin and that the resulting extent to which a statin lowered lipid levels need not be measured.

The physician leads for the 6 participating specialties decided to proceed with the study:
- To try to improve LDL testing because
  - It was still needed clinically to check for medication compliance and operationally as a pay-for-performance measure
  - Although performance levels may be near the “ceiling” for some specialties, others had more room for improvement
- To use the model to develop infrastructure and experience in common improvements in processes across specialties for routine laboratory testing – even if tests were being ordered, the processes could be more efficient for physicians and patients.
The following factors limiting performance were identified in discussions with participating physicians:

**Tests Ordered**
**Physician Factors:**
- Failure to recognize the patient was due for a test.
- Knowledge gaps on when appropriate to order non-fasting test.
**Process Factors:** Electronic Medical Record Alert not utilized effectively.

**Tests Completed**
**Test Factors:**
- Non-fasting test is adequate for LDL testing alone, but fasting test is needed to also check glucose and triglyceride levels.
- Non-fasting test can be done immediately while the patient is at the clinic, but fasting test typically requires a patient to return another day after fasting for at least 6 hours.
**Patient Factors:**
- Patients differ in motivation to perform test (understanding of importance). [Not addressed in this project]
- Access barriers to testing (lab access, transportation)
**Process Factors:** Work flow can result in delays in order being given to patient.

C. Do

14. Intervention(s).

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

**EMR changes:**
- Developed a point of care decision support tool to prompt and facilitate ordering LDL tests, a MiChart Best Practice Advisory (BPA) with linked LDL orders in a “smart set”.
- Built a default of a non-fasting test into the “smart set” orders associated with the BPA.

**Process changes:**
- Developed a standardized clinic workflow to support ordering of LDL tests for patients identified as “overdue” (last LDL test > 365 days ago) for testing.
- Coordinated with pathology (lab) to insure patients not fasting still can get lab testing done.

**Education:**
- For physicians, regarding lack of evidence or need for the test to be ordered as a fasting study.
- For physicians and medical assistants, about the new clinic workflow.

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.)

**Tests Ordered**
**Physician Factors:**
- Failure to recognize the patient was due for a test: addressed by EMR changes,
- Knowledge gaps on when appropriate to order non-fasting test: addressed by education,
**Process Factors:** Electronic Medical Record Alert not utilized effectively: addressed by process changes and related education

**Tests Completed**
**Test Factors:**
- Non-fasting test is adequate for LDL testing alone, but fasting test is needed to also check glucose and triglyceride levels. Addressed by physician education on ordering non-fasting whenever clinically appropriate
Non-fasting test can be done immediately while the patient is at the clinic, but fasting test often requires patient to return another day after fasting for at least 6 hours: addressed by EMR prompt for non-fasting default in "smart set"

**Patient Factors:**
- Access barriers to testing (lab access, transportation): addressed by having non-fasting tests while at clinic whenever possible

**Process Factors:** Work flow can result in delays in order being given to patient: addressed by improved workflow processes and education about them.

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

**EMR changes:**
- Developing and applying a point of care decision support tool: Project Facilitator, Physician Leads (informing clinical content, which orders to link.)  MiChart Programmer developed the tool.  Project Manager facilitated task completion.
- Building in a default of a non-fasting test into the "smart set" orders associated with the BPA: MiChart Programmer.  Physicians (all): ordering non-fasting LDL tests.

**Process changes:** Developing a standardized workflow to support ordering of LDL tests: Project Facilitator, Physician Leads facilitate information dissemination to the physicians in the respective clinical divisions/departments.  Participating Physicians reviewed and provided input for incorporation into workflow at local and department levels.  Medical Assistants: Address the BPA and pend the LDL order when appropriate.  Managers: facilitate medical assistant education and process change.

**Education:** Education was provided concerning:
- Lack of evidence or need for the test to be ordered as a fasting study.  Physicians, Medical Assistants.
- The new workflow.  Physicians, medical assistants who will be ordering LDL tests

The Project Manager met with Health Center Managers, with MA’s, and with Physicians at clinical sites and at monthly Manager meetings to review the information and updated workflow and to answer questions about the workflow.  The information was subsequently also provided electronically as a Powerpoint presentation for reference.  Physician leads in each area also shared this information in division/department meetings and electronically.

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

By 6/21/14 across all sites

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:
      Has occurred for the period: 6/21/14 – 7/21/14

   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.)

      Overall LDL testing Post-Intervention is 84%, essentially no change from baseline rate of 86%.
Appreciable variation in practice continues to exist across specialties (73% for specialty 4 to 87% for specialty 6)
See Table on the last page of the report for details by measure and by specialty.

E. Adjust – Replan


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.

Who: Overall project lead, physician leads for each of the 6 participating clinical leads, physicians practicing in the ambulatory clinics of each of the 6 participating specialties, and program administrators and support personnel.

How:
- The project lead and physician leads met to review post-intervention data and discuss probable root causes and possible interventions.
- The physician leads then met with physicians in their respective departments and divisions to review the data, discuss root causes, and consider possible interventions.
- The physician leads then reported input from physicians and finalized plans for interventions.

When: The meetings occurred between late July and early August, 2014.

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.)

Continue the project? An event occurring at the end of the post-intervention observation period again raised the question of whether the project should continue for another cycle. NCQA announced that LDL testing would be removed as a HEDIS performance measure because of the change in national recommendations that the extent to which statins lowered lipids need not be measured. This change eliminated the basis for the specific aim to achieve $\geq 92\%$ LDL testing. Testing LDL level to check for medication compliance remained an important clinical reason for testing. However, the expected performance levels for testing for only for compliance could reasonably be somewhat lower than the initial goal of 92% annual testing. If 40% of patients comply with medications, in a patient with previously documented long-term compliance, not performing a LDL test every 365 days could be reasonable.

The leadership team representing the 6 participating specialties considered the above change in goals and the post-intervention data and decided to perform one more improvement cycle because:
- The variation in practice across specialties can be addressed
- Changes in processes had been identified that could further improve the efficiency of testing and subsequently can be applied to the ordering of other tests.

The following factors limiting performance were identified in discussions with participating physicians:

Tests Ordered
External Factors: The National Quality Forum, which informs HEDIS, discontinued LDL measurement as a performance metric, lowering external motivation to order LDL testing.

Physician Factors:
- Lack of knowledge/communication of a large project at the local level
- Inconsistent understanding regarding the lack of need to fast for the LDL
Process Factors: Physicians often do not sign orders before patient leaves the office (and as such test not ordered when patient available to go to the lab). If the provider does not order a lipid panel while the patient is in the office, the order will not appear on the patient's After Visit Summary (AVS) and thus no reminder for the patient will be present at checkout, and if the patient does go to the lab the lab will not have an order to process.

Tests Completed:

Patient Factors: Not getting the test the same day it is ordered and ultimately not returning to the clinic for a test, presumably due to the inconvenience involved.

Process Factors: Waiting until the test is overdue before ordering the next test will not improve the annual LDL rates. The test needs to be ordered before it is overdue so it is completed within 365 days to improve the annualized rate.

F. Redo

   a. The second intervention will be/was initiated when? (For multiple interventions, initiation date for each.)
      By 8/21/14 across all sites
   b. If the second intervention has occurred, what interventions were implemented?
      EMR changes: Adjusted the decision support logic (BPA and Health Maintenance) so the BPA will trigger when a patient is "near due" (within the next 3 months) instead of "overdue". (More than 3 months since Last LDLC test replacing the prior logic of more than 365 days since the last LDLC test). [This change will not affect immediate data on LDL testing at visit, but should increase overall annual testing rate over time.]
      Process improvement:
      • Identified and implemented ACU (clinic) site level physician champions to work with the administrative managers to disseminate information and serve as a local resource regarding the project
      • Reinforced need to sign orders during patient encounters through administrative managers and local physician champions.
      Education: Developed and disseminated video education regarding the Lipid guideline that includes information about the lack of need for fasting tests and the continued need to check LDL levels to monitor patient compliance with medications.
   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.)
      Tests Ordered
      External Factors: National Quality Forum discontinuing LDL as a performance measure: addressed by physician education about need to continue to test LDL to monitor patient compliance with medications.
      Physician Factors:
      • Lack of knowledge/communication of a large project at the local level: addressed by identifying local physician champion and related communications.
      • Inconsistent understanding regarding the lack of need to fast for the LDL: addressed by further education by video
      Process Factors: Physicians often do not sign orders before patient leaves the office (and as such test not ordered when patient available to go to the lab): addressed by reinforcing need to sign orders during encounters.
Tests Completed:

**Patient Factors:** Not getting the test the same day it is ordered and ultimately not returning to the clinic for a test, presumably due to the inconvenience involved: addressed by work with physician champions, health center managers, medical assistants on reminding patients to complete tests based on what has been ordered through review of After Visit Summary (AVS)

**Process Factors:** Waiting until the test is overdue before ordering the next test will not improve the annual LDL rates. The test needs to be ordered before it is overdue so it is completed within 365 days to improve the annualized rate: addressed by EMR changes.

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:
      - Has occurred for the period: 8/21/14-9/21/14
   b. If the data collection has occurred, what is the performance level?
      - Overall LDL testing Post-Adjustment is 87%, similar to the baseline rate of 86% and the post-intervention rate of 85%.
      - Testing performance within specialty 5 increased from 71%–73% in earlier observation periods to 90%. Testing rates across specialties are now fairly similar, ranging from 82% (specialty 1) to 90% (specialties 4 and 5).
      - For patients needing testing, the rate of physicians ordering tests increased slightly, from 62% and 63% in the two previous observation periods to 67%.
      - See Table on the last page of the report for details by measure and by specialty

H. Readjust

   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.
      - **Who:** Overall project lead, physician leads for each of the 6 participating clinical leads, physicians practicing in the ambulatory clinics of each of the 6 participating specialties, and program administrators and support personnel.
      - **How:**
        - The project lead and physician leads met to review post-adjustment data and discuss probable root causes and possible interventions.
        - The physician leads then met with physicians in their respective departments and divisions to review the data, discuss root causes, and consider possible interventions.
        - The physician leads then reported input from physicians and finalized plans for interventions.
      - **When:** The meetings occurred between late September and early October, 2014.
   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.)
Continue the project? After the physician leads reviewed the data and discussed it with participating physicians, the physician leads decided not to perform further cycles of improvement for LDL testing.

- Current performance is at levels that are reasonable for the remaining purpose of LDL testing, i.e. to monitor compliance. (In the context of the current environment, a likely effect of the project has been to sustain LDL testing for medication compliance, which otherwise may have decreased with the changing national recommendations for LDL testing for other purposes.)
- Performance across specialties is sufficiently consistent and all are at reasonable levels.
- Process improvements developed in this project can be applied and further developed for other needed testing.

The discussions identified the following factors that limit performance and to consider in future activities.

**Tests Ordered**

**Physician Factors:**
- In many cases, patients do need fasting tests to also check for glucose and triglycerides, limiting the extent to which physicians should order non-fasting tests.
- LDL may not be addressed at time of visit due to complexity of patient and other aspects of care that take precedence at that specific visit. In the context of competing demands on time, the priority for LDL testing has been lowered by changes in national standards.

**Process Factors:**
- Medical Assistants inconsistently address LDL orders through EMR best practice alerts (BPA). For many sections of the medical record (e.g., medications and orders section), MAs can place an order for a physician to sign at a later time. However, a BPA associated with a SmartSet does not allow a Medical Assistant to place an order for a physician to sign.
- The BPA smart set not easy to use when tests beyond LDL are required (e.g. glucose, a1c).
- Nephrology clinic MA’s did not incorporate LDL into pre-visit lab checklist.

**Tests Completed:**

**Patient Factors:** Some patients, who do not need a fasting test, continue to believe they need to be fasting. They could, but do not, get a test the same day a test is ordered and inconsistently return to the clinic for testing.

**Process Factors:** Physicians still sometimes do not sign orders before patient leaves the office. So the test is not ordered when patient is still on site and available to go to the lab.

**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?**

   For the reasons discussed in #23.b, no further PDCA cycles are planned that focus specifically on LDL testing.

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

   The primary focus will be on sustaining and improving processes that were developed. The following functions and processes will be incorporated into other efforts to improve the quality of care.

   **Improved work flow:**
   - Physicians and medical assistants (MA’s) better understand the benefits of standard workflow for addressing a MiChart BPA. Physicians have become more accustomed to MA initiating the process by addressing the BPA, and have found this valuable to their efficiency.
   - Sustaining and improving the workflow for ordering tests indicated by a MiChart BPA.
• Insuring that laboratory tests (including non-fasting LDL) are easy to order (creating a default onto the preference list of participating departments)

Education:
• The training materials for MAs will continue to be used.
• Specifically for LDL testing, the educational materials regarding lack of need for fasting tests for LDL will continue to be utilized.

Structure and communications in future projects: Future multi-specialty projects will utilize the model of local champions to facilitate regular communication regarding process, data, intervention, challenges, education, and recommendations. This will enhance communication and data sharing with end users and clinic managers.

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?

Many areas of UMHS have MiChart BPA’s to indicate patients being seen have gaps in care and in test ordering and test completion during patient visits. This project will be used to build on team-based process to address the BPA to facilitate efficient identification, ordering, and hopefully in the future, completion of the indicated testing. It is clear that the process involved with this project can be applied to many other future projects and ongoing lab/studies for which there are MiChart BPA’s. The same team and management, who facilitated this project, manage many other projects and can readily apply the learning from this effort to subsequent efforts.

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? Add dates

a. Interpreting baseline data and planning intervention: Review of data as provided by physician lead, opportunity to provide input into the process of addressing the MiChart BPA: April 21 (input into developing process). Done late May to early June 2014 (interpreting baseline data and applying this to the planning of intervention)

b. Implementing intervention: Ordering the LDL test when prompted by the MiChart BPA by June 21.

c. Interpreting post-intervention data and planning changes:: Review of data as provided by physician lead, opportunity to provide input into the process of addressing the MiChart BPA. Done late July 2014-early August 2014.

d. Implementing further intervention/adjustments: Ordering the LDL test when prompted by the MiChart BPA, becoming familiar with the Lipid guideline which does not require fasting for LDL and applying this to appropriate patients. Signing LDL orders while the patient is still in the office as often as possible. Starting by August 21, 2014-Sept 21.
28. How are reflections of individual physicians about the project utilized to improve the overall project?

All participating physicians have the opportunity to review data, provide input through their Departmental/Division Physician lead. These comments are then presented and utilized to develop consensus on the project’s interventions based on the identified root causes.

29. How does the project ensure meaningful participation by physicians who subsequently request credit for Part IV MOC participation?

All physicians planning to participate in this project were identified prior to baseline data collection. Specialty leads and local champions monitored participation in the project. All physicians who request credit will fill out an individual attestation document and reflect on the project from their own perspective. The physician lead from their department/division will validate their active participation throughout the project.

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?

Cardiology – 19
Endocrinology – 32
Family Medicine – 73
General Medicine – 54
Geriatrics – 17
Nephrology 31

Total: 226

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?
    Faculty Group Practice, Departments of Family Medicine and Internal Medicine
  • Is the activity part of a larger UMHS institutional or departmental initiative?
    ☐ No    ☑ Yes – (this project IS a larger UMHS institutional initiative)

☐ 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.]

Overall Project Facilitator:
  Grant M. Greenberg MD, MA, MHSA, Faculty Group Practice. Facilitate overall project, data gathering and analysis, MiChart BPA development, coordinate educational outreach with Office of Continuing Professional Development (educational LDL video), liaison to Ambulatory Care Services to facilitate workflow development with Medical Assistants and Health Center Managers, and supervise project manager

Project Manager:
  Paul Paliani, Population Health Office. Facilitate project process and coordination across the 6 Divisions/Departments participating

Physician Leads:
  Tom O’Connor MD, General Medicine
  Jennifer Wyckoff MD, Endocrinology
  Jill Fenske MD, Family Medicine
  Prashant Vaishnava MD, Cardiology
  Jocelyn Wiggins MD, Geriatrics
  Jonathan Segal MD, Nephrology

Physician leads facilitate dissemination of data, process information, and gathering of input from physician participants in their respective areas working through local physician champions. They are responsible for attesting to the participation of individual physicians in their areas seeking MOC-IV credit for this project.

33. To what oversight person or group will project-level reports be submitted for review?
  Steven Bernstein, MD MPH, Director of Quality Management Program, Faculty Group Practice
  The Faculty Group Practice Board of Directors
  Health System Clinical Quality Committee
  Division Chiefs of Cardiology, Endocrinology, Nephrology, Geriatrics, and General Medicine, and the Chair of Family Medicine
### Table. LDLC Testing Performance Across Baseline, Post-Intervention, and Post-Adjustment Periods

<table>
<thead>
<tr>
<th>Measure</th>
<th>Specialty 1</th>
<th>Specialty 2</th>
<th>Specialty 3</th>
<th>Specialty 4</th>
<th>Specialty 5</th>
<th>Specialty 6</th>
<th>Total</th>
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<td>1009</td>
<td>176</td>
<td>245</td>
<td>2409</td>
<td>1425</td>
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<td>64%</td>
<td>81%</td>
<td>75%</td>
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<td>% with testing after visit</td>
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<td>11%</td>
<td>8%</td>
<td>10%</td>
<td>12%</td>
<td>11%</td>
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<td>% with testing before or after visit</td>
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<td>86%</td>
<td>79%</td>
<td>71%</td>
<td>90%</td>
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<td>56</td>
<td>89</td>
<td>466</td>
<td>360</td>
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<td>46%</td>
<td>36%</td>
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<td>69%</td>
<td>62%</td>
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<td>59%</td>
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<td>% of those due with completed test</td>
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</tr>
<tr>
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<td>618</td>
<td>152</td>
<td>248</td>
<td>1883</td>
<td>1245</td>
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<td>78%</td>
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<td>7%</td>
<td>5%</td>
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<td>85%</td>
<td>73%</td>
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<td>87%</td>
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</tr>
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<td>34</td>
<td>80</td>
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<td>64%</td>
<td>59%</td>
<td>36%</td>
<td>68%</td>
<td>76%</td>
<td>63%</td>
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<td>% with order who completed test</td>
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<td>65%</td>
<td>46%</td>
<td>54%</td>
<td>62%</td>
<td>60%</td>
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<tr>
<td>% of those due with completed test</td>
<td>37%</td>
<td>37%</td>
<td>32%</td>
<td>16%</td>
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<td>46%</td>
<td>37%</td>
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<td><strong>Post-Adjustment: August 21-September 21, 2014</strong></td>
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<tr>
<td>N DM+IVD patients seen</td>
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<td>834</td>
<td>179</td>
<td>234</td>
<td>2206</td>
<td>1360</td>
<td>6132</td>
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<tr>
<td>% with LDL testing before visit</td>
<td>71%</td>
<td>73%</td>
<td>76%</td>
<td>82%</td>
<td>79%</td>
<td>77%</td>
<td>76%</td>
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<tr>
<td>% with testing after visit</td>
<td>11%</td>
<td>13%</td>
<td>7%</td>
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<td>11%</td>
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<tr>
<td>Process Measures b</td>
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<td></td>
<td></td>
</tr>
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<td>43</td>
<td>42</td>
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<tr>
<td>% of those due with test ordered</td>
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<td>40%</td>
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<td>28%</td>
<td>45%</td>
<td>54%</td>
<td>53%</td>
<td>48%</td>
</tr>
</tbody>
</table>

a  “% with LDL testing before visit” + “% with testing after visit” = “% with testing before or after visit”

b  “% of those due with test ordered” x “% with order who completed test” = “% of those due with completed test”