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

**Improvement of Asthma Follow-up Post-hospitalization**

## Instructions

**Determine eligibility.** Before starting to complete this report, go to the Michigan Medicine MOC website [http://www.med.umich.edu/moc-qii/index.html](http://www.med.umich.edu/moc-qii/index.html), click on “Part IV Credit Designation,” and review sections 1 and 2. Complete and submit a “QI Project Preliminary Worksheet for Part IV Eligibility.” Staff from the Michigan Medicine Part IV MOC Program will review the worksheet with you to explain any adjustments needed to be eligible. (The approved Worksheet provides an outline to complete this report.)

**Completing the report.** The report documents completion of each phase of the QI project. (See section 3 of the website.) Final confirmation of Part IV MOC for a project occurs when the full report is submitted and approved.

An option for preliminary review (strongly recommended) is to complete a description of activities through the intervention phase and submit the partially completed report. (Complete at least items 1-20.) Staff from the Michigan Medicine Part IV MOC Program will provide a preliminary review, checking that the information is sufficiently clear, but not overly detailed. This simplifies completion and review of descriptions of remaining activities.

Questions are in bold font. Answers should be in regular font (generally immediately below or beside the questions). To check boxes, hover pointer over the box and click (usual “left” click).

For further information and to submit completed applications, contact either:
- R. Van Harrison, PhD, Michigan Medicine Part IV Program Co-Lead, 734-763-1425, rvh@umich.edu
- J. Kin, MHA, JD, Michigan Medicine Part IV Program Co-Lead, 734-764-2103, jkin@umich.edu
- Ellen Patrick, Michigan Medicine Part IV Program Administrator, 734-936-9771, partivmoc@umich.edu

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<tr>
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<td>42. Part of UMHS, AAVA, other affiliation with UMHS</td>
</tr>
</tbody>
</table>
QI Project Report for Part IV MOC Eligibility

A. Introduction

1. Date (this version of the report): August 13, 2018

2. Title of QI effort/project (also insert at top of front page): Improvement of Asthma Follow-up Post-hospitalization

3. Time frame
   a. MOC participation beginning date – date that health care providers seeking MOC began participating in the documented QI project (e.g., date of general review of baseline data, item #14c): 6/21/2017 – data collection
      7/27/2017 – official planning meeting
   b. MOC participation end date – date that health care providers seeking MOC completed participating in the documented QI project (e.g., date of general review of post-adjustment data, item #29c): 8/13/2018

4. Key individuals
   a. QI project leader [also responsible for confirming individual’s participation in the project]
      Name: Lauren Castner, M.D.
      Title: Pediatric Pulmonary Fellow
      Organizational unit: Pediatric Pulmonary Medicine Division, Michigan Medicine
      Phone number: 734-764-4123
      Email address: lcastner@umich.edu
      Mailing address: lcastner@umich.edu
   b. Clinical leader who oversees project leader regarding the project [responsible for overseeing/”sponsoring” the project within the specific clinical setting]
      Name: Manuel Arteta, M.D.
      Title: Assistant Professor of Pediatrics and Communicable Diseases, Division QI Lead
      Organizational unit: Pediatric Pulmonary Medicine Division, Michigan Medicine
      Phone number: 734-647-1629
      Email address: marteta@umich.edu
      Mailing address: marteta@umich.edu

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

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number (fill in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing Physicians</td>
<td>20</td>
</tr>
<tr>
<td>Residents/Fellows</td>
<td>2</td>
</tr>
<tr>
<td>Physicians' Assistants</td>
<td></td>
</tr>
<tr>
<td>Nurses (APNP, NP, RN, LPN)</td>
<td>1</td>
</tr>
</tbody>
</table>
b. Approximately how many physicians (by specialty/subspecialty and by training level) and physicians’ assistants participated for MOC?

<table>
<thead>
<tr>
<th>Profession</th>
<th>Specialty/Subspecialty (fill in)</th>
<th>Number (fill in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing Physicians</td>
<td>Peds Pulmonary</td>
<td>11</td>
</tr>
<tr>
<td>Fellows</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Residents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians’ Assistants</td>
<td>(Not applicable)</td>
<td></td>
</tr>
</tbody>
</table>

6. How was the QI effort funded? (Check all that apply.)

☒ Internal institutional funds (e.g., regular pay/work, specially allocated)
☐ Grant/gift from pharmaceutical or medical device manufacturer
☐ Grant/gift from other source (e.g., government, insurance company)
☐ Subscription payments by participants
☐ Other source (describe):

The Multi-Specialty Part IV MOC Program requires that QI efforts include at least two linked cycles of data-guided improvement. Some projects may have only two cycles while others may have additional cycles – particularly those involving rapid cycle improvement. The items below provide some flexibility in describing project methods and activities. If the items do not allow you to reasonably describe the steps of your specific project, please contact the UMHS Part IV MOC Program Office.

B. Plan

7. Patient population. What patient population does this project address (e.g., age, medical condition, where seen/treated): Pediatric asthma inpatients who have been previously seen by a UMHS Pediatric Pulmonologist.

8. General purpose.

a. Problem with patient care (“gap” between desired state and current state)

(1) What should be occurring and why should it occur (benefits of doing this)?

Pediatric asthma inpatients who have been seen by the Pediatric Pulmonary group one year prior to their hospitalization, should be scheduled for a follow up clinic appointment with a pulmonary subspecialty provider or outside subspecialist (non-UM Pulmonologist or Allergist, or UM Allergist) within 30 days of discharge. Being seen promptly helps identify the development of problematic conditions and initiate treatment to prevent them from becoming worse. Children with an asthma action plans were half as likely to have a hospitalization or ED visit, and there is also a possible reduction in admissions when followed by a specialist along with a reduction in school absenteeism days or days in the hospital if an admission occurs. Prompt revisits reinforce asthma education plans and promote adherence to medical therapy. Ford et al. has evaluated adult patients with asthma and has found there are decreased visits to the Emergency Department when asthma education is provided, especially in the first 4 months after education. Single asthma education sessions, such as those given prior to hospital discharge do not correlate with asthma readmission reductions to the same degree as tailored, individualized, and interactive asthma education. Following up with the Pulmonary/Asthma Clinics will allow
patients to have further education with nursing, trained asthma educators, and social work evaluations if barriers to adherence or improvement are recognized.

(2) What is occurring now and why is this a concern (costs/harms)?

Follow-up appointments are scheduled inconsistently. Last year, 1/3 of the patients were not seen until over one month after discharge and some were not seen for 3-4 months. Patients can develop conditions that, untreated, can lead to unnecessary readmissions or Emergency Department visits. In addition, delayed follow-up after discharge increases the likelihood that patients no longer adhere to medical recommendations and therapy.

References:

b. Project goal. What general outcome regarding the problem should result from this project?
(State general goal here. Specific aims/performance targets are addressed in #13.)
Ensure that hospitalized pediatric asthma patients receive timely (within 30 days) post-discharge follow up with a subspecialty provider.

☒ Effectiveness ☐ Equity ☒ Safety
☐ Efficiency ☐ Patient-Centeredness ☒ Timeliness

10. Which ACGME/ABMS core competencies are addressed? (Check all that apply.) (http://www.abms.org/board-certification/a-trusted-credential/based-on-core-competencies/)
☒ Patient Care and Procedural Skills ☐ Medical Knowledge
☒ Practice-Based Learning and Improvement ☐ Interpersonal and Communication Skills
☐ Professionalism ☒ Systems-Based Practice

11. Describe the measure(s) of performance: (QI efforts must have at least one measure that is tracked across the two cycles for the three measurement periods: baseline, post-intervention, and post-adjustment. If more than two measures are tracked, copy and paste the section for a measure and describe the additional measures.)

Measure 1
- Name of measure (e.g., Percent of . . ., Mean of . . ., Frequency of . . .): Percent of patients scheduled for a follow up appointment with a subspecialist within 30 days of discharge.
- Measure components – describe the:
  Denominator (e.g., for percent, often the number of patients eligible for the measure): Number of unique inpatients with asthma who were treated by a pulmonologist in clinic one year prior to hospitalization.
Numerator (e.g., for percent, often the number of those in the denominator who also meet the performance expectation):
Number of patients described above who are scheduled for a follow-up appointment with one of our pulmonary subspecialty providers, or outside subspecialist if preferred, within 30 days of discharge

The source of the measure is:
☐ An external organization/agency, which is (name the source):
☒ Internal to our organization and it was chosen because (describe rationale): Based on the literature cited in item # 8 above, we view timely follow up appointments as an important aspect of care for pediatric asthma patients.

- This is a measure of:
☒ Process – activities of delivering health care to patients
☐ Outcome – health state of a patient resulting from health care

12. Baseline performance

a. What were the beginning and end dates for the time period for baseline data on the measure(s)?
   1/1/16-12/31/16

c. What was (were) the performance level(s) at baseline? Display in a data table, bar graph, or run chart (line graph). Can show baseline data only here or refer to a display of data for all time periods attached at end of report. Show baseline time period, measure names, number of observations for each measure, and performance level for each measure.

d.  

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline 1/1/16-12/31/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>N inpatients with asthma: treated by pulmonologist in clinic 1 year prior to hospitalization</td>
<td>60</td>
</tr>
<tr>
<td>Percent with follow up appointment scheduled within 30 days</td>
<td>67%</td>
</tr>
</tbody>
</table>

13. Specific performance aim(s)/objective(s)

a. What is the specific aim of the QI effort? “The Aim Statement should include: (1) a specific and measurable improvement goal, (2) a specific target population, and (3) a specific target date/time period. For example: We will [improve, increase, decrease] the [number, amount percent of [the process/outcome] from [baseline measure] to [goal measure] by [date].”

To ensure that hospitalized pediatric asthma patients receive appropriate and timely follow-up care post-discharge, we will increase the percent of follow up appointments with a subspecialty provider scheduled within 30 days from our baseline of 67% to 75% as a primary goal, but our ideal goal is 90% by 7/1/18.

b. How were the performance targets determined, e.g., regional or national benchmarks?

Established by our Pediatric Pulmonary department, based on recommendations in the literature, national criteria, and what they considered feasible in their practice environment.
14. Baseline data review and planning. Who was involved in reviewing the baseline data, identifying underlying (root) causes of problem(s) resulting in these data, and considering possible interventions (“countermeasures”) to address the causes? (Briefly describe the following.)

   a. Who was involved? (e.g., by profession or role)
      Division Director, Pediatric Pulmonary Medicine Division
      QI Lead, Pediatric Pulmonary Medicine Division
      Fellow, Pediatric Pulmonary Medicine Division

   b. How? (e.g., in a meeting of clinic staff)
      In a meeting between the three primary investigators

   c. When? (e.g., date(s) when baseline data were reviewed and discussed)
      Planning meeting on 7/27/17
      Meeting with Pediatric Pulmonary division during Faculty meeting on 8/7/17, with follow up email for those who could not attend
      Meeting with Pediatric Pulmonary Administrative Staff on 7/31/17
      Meeting with house officers on 8/17/17, with follow up email for those who could not attend and Hospitalists

Use the following table to outline the plan that was developed: #15 the primary causes, #16 the intervention(s) that addressed each cause, and #17 who carried out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation in section 2a. As background, some summary examples of common causes and interventions to address them are:

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

15. What were the primary underlying/root causes for the problem(s) at baseline that the project can address?

16. What intervention(s) addressed this cause?

17. Who was involved in carrying out each intervention? (List the professions/roles involved.)

<table>
<thead>
<tr>
<th>Hospitalists, clinical staff, and clinic administrative staff were not aware of expectation for follow up visit within 30 days</th>
<th>During In-service meetings with hospitalists, clinical staff, and clinic administrative staff, provided education about need for clinic visit soon after discharge</th>
<th>Project leaders; Pediatric Pulmonary faculty and fellows, hospitalists, clinical and administrative staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic personnel believed that current performance is OK</td>
<td>Reviewed baseline performance data during in-service meetings</td>
<td>Project leaders; Pediatric Pulmonary faculty and fellows, hospitalists, clinical and administrative staff</td>
</tr>
</tbody>
</table>
C. Do

18. By what date was (were) the intervention(s) initiated? *(If multiple interventions, date by when all were initiated.)*
   By 9/01/17

D. Check

19. Post-intervention performance measurement. Are the population and measures the same as those for the collection of baseline data (see items 10 and 11)?
   ☒ Yes ☐ No – If no, describe how the population or measures differ:

20. Post-intervention performance
   a. What were the beginning and end dates for the time period for post-intervention data on the measure(s)?
      9/1/17-12/31/17
   b. What was (were) the overall performance level(s) post-intervention? Add post-intervention data to the data table, bar graph, or run chart (line graph) that displays baseline data. Can show baseline and post-intervention data incrementally here or refer to a display of data for all time periods attached at end of report. Show baseline and post-intervention time periods and measure names and for each time period and measure show number of observations and performance level.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline 1/1/16-12/31/16</th>
<th>Post Intervention 9/1/17-12/31/17</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>N inpatients with asthma: treated by pulmonologist in clinic prior to hospitalization, or seen by a pulmonary subspecialist during hospitalization</td>
<td>60</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Percent with follow up appointment scheduled within 30 days</td>
<td>67%</td>
<td>80%</td>
<td>75%</td>
</tr>
</tbody>
</table>

b. Did the intervention(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)?
   Performance improved from the baseline of 67% to 80%, which allowed us to surpass our primary goal. We will now strive for our ideal goal of 90% of follow up appointments scheduled within 30 days.

E. Adjust – Replan
21. Post-intervention data review and further planning. Who was involved in reviewing the post-intervention data, identifying underlying (root) causes of problem(s) resulting in these new data, and considering possible interventions (“countermeasures”) to address the causes? (Briefly describe the following.)

a. Who was involved? (e.g., by profession or role)
   ☒ Same as #14?  ☐ Different than #14 (describe):

b. How? (e.g., in a meeting of clinic staff)
   ☒ Same as #14?  ☐ Different than #14 (describe):

c. When? (e.g., date(s) when post-intervention data were reviewed and discussed)
   1/11/2018 – planning and review meeting with Project Leaders
   Follow up email sent to hospitalists and residents on 1/17/2018
   Meeting with Pediatric Pulmonary Faculty and Fellows on 3/26/2018
   Meeting with Pediatric Pulmonary administrative staff on 1/17/2018

Use the following table to outline the next plan that was developed: #22 the primary causes, #23 the adjustments/second intervention(s) that addressed each cause, and #24 who carried out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation in section 2a.

Note: Initial intervention(s) occasionally result in performance achieving the targeted specific aims and the review of post-intervention data identifies no further causes that are feasible or cost/effective to address. If so, the plan for the second cycle should be to continue the interventions initiated in the first cycle and check that performance level(s) are stable and sustained through the next observation period.

<table>
<thead>
<tr>
<th>22. What were the primary underlying/root causes for the problem(s) following the intervention(s) that the project can address?</th>
<th>23. What adjustments/second intervention(s) addressed this cause?</th>
<th>24. Who was involved in carrying out each adjustment/second intervention? (List the professions/roles involved.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients were admitted to other inpatient care teams and the Pulmonary service was not notified, therefore, the new team may not be aware of the need for follow up appointment in Pulmonary clinic or process for making appointments</td>
<td>Discuss with (and educate) hospitalists and house staff that all inpatients patients who were previously seen in Ped Pulmonary clinic need an appointment at the Ped Pulmonary clinic within 30 days of discharge</td>
<td>Project leaders; Pediatric Pulmonary faculty and fellows, hospitalists, clinical and administrative staff</td>
</tr>
<tr>
<td>Patients previously following in Ped Pulmonary clinic who now see an outside subspecialist or UM non-Pulmonary Specialist, did not have follow up scheduled with the</td>
<td>Discuss with hospitalists and house staff that all patients seen in Ped Pulmonary clinic need an appointment within 30 days of discharge with the provider of their choice if followed outside of the Ped Pulmonary department</td>
<td>Project leaders; Pediatric Pulmonary faculty and fellows, hospitalists, clinical and administrative staff</td>
</tr>
</tbody>
</table>
subspecialist now providing asthma care

Patients scheduled, but after 30 days, with unclear causes for the delay in scheduling

Discussion during team meeting with schedulers to learn reasons that visits were scheduled after 30 days. Reviewed that patients discharged from the hospital for asthma need to be scheduled within 30 days. Request that a telephone note is written in order to track and better understand reasons why a patient may not have been scheduled within 30 days

Project leaders and administrative staff

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

F. Redo

25. By what date was (were) the adjustment(s)/second intervention(s) initiated? (If multiple interventions, date by when all were initiated.)
By 3/29/18

G. Recheck

26. Post-adjustment performance measurement. Are the population and measures the same as indicated for the collection of post-intervention data (item #21)?
☒ Yes ☐ No – If no, describe how the population or measures differ:

27. Post-adjustment performance

a. What were the beginning and end dates for the time period for post-adjustment data on the measure(s)?
4/1/18-7/31/18

b. What was (were) the overall performance level(s) post-adjustment? Add post-adjustment data to the data table, bar graph, or run chart (line graph) that displays baseline and post-intervention data. Can show here or refer to a display of data for all time periods attached at end of report. Show time periods and measure names and for each time period and measure show the number of observations and performance level.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline 1/1/16-12/31/16</th>
<th>Post Intervention 9/1/17-12/31/17</th>
<th>Post Adjustment 4/1/18-7/31/18</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>N inpatients with asthma: treated by pulmonologist in clinic prior to hospitalization, or seen by a pulmonary subspecialist during hospitalization</td>
<td>60</td>
<td>40</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Percent with follow up appointment scheduled within 30 days</td>
<td>67%</td>
<td>80%</td>
<td>71%</td>
<td>75/90%</td>
</tr>
</tbody>
</table>
28. Summary of individual performance
   a. Were data collected at the level of individual providers so that an individual’s performance on target measures could be calculated and reported?
      ☐ Yes  ☒ No – go to item 29
   
   b. If easily possible, for each listed group of health care providers:
      - Participants with data available:
        - Indicate the number participating (if none, enter “0” and do not complete rest of row)
        - If any are participating, are data on performance of individuals available? (If “No”, do not complete rest of row.)
      - If data on performance are available, then enter the number of participants in three categories regarding reaching target rates (i.e. the specific aims for measures).
        (If you do not have this information or it is not easily available, leave the table blank.)

29. Post-adjustment data review and further planning. Who was involved in reviewing the post-adjustment data, identifying underlying (root) causes of problem(s) resulting in these new data, and considering possible interventions (“countermeasures”) to address the causes? (Briefly describe the following.)

   a. Who was involved? (e.g., by profession or role)
      ☒ Same as #21?  ☐ Different than #21 (describe):

   b. How? (e.g., in a meeting of clinic staff)
      ☒ Same as #21?  ☐ Different than #21 (describe):

   c. When? (e.g., date(s) when post-adjustment data were reviewed and discussed)
      Data review meeting with project leaders, 8/8/2018
      Faculty meeting to review data, 8/13/2018

      Use the following table to outline the next plan that was developed: #30 the primary causes, #31 the adjustments(second intervention(s)) that addressed each cause, and #32 who would carry out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation in section 2a. Note: Adjustments(s) may result in performance achieving the targeted specific aims and the review of post-adjustment data identifies no further causes that are feasible or cost/effective to address. If so, the plan for a next cycle could be to continue the interventions/adjustments currently implemented and check that performance level(s) are stable and sustained through the next observation period.

<table>
<thead>
<tr>
<th>30. What were the primary underlying/root causes for the problem(s) following the</th>
<th>31. What further adjustments/intervention(s) might address this cause?</th>
<th>32. Who would be involved in carrying out each further adjustment/intervention? (List the professions/roles involved.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(List the professions/roles involved.)</td>
<td>(List the professions/roles involved.)</td>
<td>(List the professions/roles involved.)</td>
</tr>
</tbody>
</table>
### Adjustment(s) that the project can address?

<table>
<thead>
<tr>
<th>Issue</th>
<th>Action</th>
<th>Responsible Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments were being made for all patients, but still not in less than 30 days</td>
<td>We will address the language used to direct the schedulers and recommend the use of &quot;less than 30 days for asthma follow up&quot; rather than &quot;4 weeks&quot; or &quot;a month&quot;. This will be done by reaching out to the house staff, hospitalists, and changing the recommendations from the Pulmonary Team to the house officers and schedulers.</td>
<td>Project leaders; Pediatric Pulmonary faculty and fellows, hospitalists, clinical and administrative staff</td>
</tr>
<tr>
<td>Language provided to scheduling staff was not specific enough to ensure appointments were being made appropriately. It was reported that for appointments sometimes no time frame was indicated or that they could be &quot;within a month,&quot; which negated the urgency for an appointment</td>
<td>Schedulers will be prompted to ask if a follow should be scheduled within 30 days when they are informed the appointment is a hospital follow up for asthma.</td>
<td>Project leaders; Pediatric Pulmonary faculty and fellows, hospitalists, clinical and administrative staff</td>
</tr>
<tr>
<td>Pulmonary Faculty/Fellows were not following up on appointments to ensure they were made in the appropriate amount of time and making appropriate accommodations to ensure the appointments were made on time.</td>
<td>Discharging pulmonologist will take responsibility for ensuring that the appointment is made in the appropriate amount of time, whether it is with the primary pulmonologist, discharging pulmonologist, pulmonologist with an open appointment, or the incoming on-call pulmonologists.</td>
<td>Project leaders; Pediatric Pulmonary faculty and fellows, and administrative staff</td>
</tr>
</tbody>
</table>

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

#### 33. Are additional PDCA cycles to occur for this specific performance effort?

- [ ] No further cycles will occur.
- [x] Further cycles will occur, but will not be documented for MOC. *If checked, summarize plans:*

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

#### I. Reflections and Future Actions

**34. Describe any barriers to change (i.e. problems in implementing interventions listed in #16 and #23) that were encountered during this QI effort and how they were addressed.**
We had an initial improvement by just identifying there was a problem with scheduling follow up appointments and helping change our culture of planning follow ups. We discovered that with time and our initial improvement, we were not providing clear instructions to the house officers and schedulers in order to ensure that appointments were made within our goal period of time.

We also identified that scheduling appointments in such a short time frame has been a barrier. With proper instructions to our schedulers, they are able to work with the primary pulmonologist in order to find a space for a patient, but we need more flexibility as an entire department to assist with assessing patients in hospital follow up. Currently the appointments are made with the primary pulmonologist, and not many are made with the on call pulmonologist or another pulmonologist with an open appointment slot in the appropriate amount of time.

We plan to continue to make adjustments with our next cycle based off these barriers.

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

It was learned that appropriate follow up does lead to improved outcomes in asthma management and may prevent recurrent hospitalizations. While reviewing admissions, some patients were admitted frequently and then when the Pulmonary team became a part of their care team, their outcomes began improving and either had fewer admissions or no longer had recurrent admissions. This is in line with our background research, but was reassuring to see that our efforts were leading to improved outcomes.

It was also learned that awareness of a problem can lead to marked improvement. In our first cycle, the biggest intervention was alerting the medical teams to a problem and that patients with asthma should be seen within 30 days of discharge. There was marked improvement in overall follow up appointments, but especially great in scheduling appointments within 30 days. It was also learned that awareness is not always sustained as our second cycle had a reduction in appointments scheduled in the appropriate amount of time. The awareness was still present as all patients had follow ups scheduled, but the language used to make the appointments lost the previous urgency and led to the decline in our 30 day follow up rates.

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

We have not yet identified any best practices, but are hoping that with continued cycles we will be able to describe sustainable best practices.

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

At this time, we are still striving to improve our practices and will focus on making sustainable changes within our Pediatric Pulmonary Department.

38. **Describe any plans for sustaining the changes that were made.**

Since we have not sustained our changes, we plan on continuing at least another PDSA cycle with our newly identified root causes and interventions. We intend to have the Pulmonologist on call take more of a lead with appointment scheduling follow through and having a system in place for our schedulers to help identify if an appointment should be scheduled within 30 days. We also have yearly assessments provided by University Administration that will continue to track our success, but at this time our goal is to continue identifying and implementing changes to ensure we can sustain our previous success.

J. **Minimum Participation for MOC**

39. Participating directly in providing patient care.

   a. Did any individuals seeking MOC participate directly in providing care to the patient population?

      ☒ Yes     ☐ No If “No,” go to item #39.
b. Did these individuals participate in the following five key activities over the two cycles of data-guided improvement?

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

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

40. Not participating directly in providing patient care.

a. Did any individuals seeking MOC not participate directly in providing care to the patient population?

☐ Yes ☒ No  If “No,” go to item 41.

b. Were the individual(s) involved in the conceptualization, design, implementation, and assessment/evaluation of the cycles of improvement? (E.g., a supervisor or consultant who is involved in all phases, but does not provide direct care to the patient population.)

☐ Yes ☐ No  If “Yes,” individuals are eligible for MOC unless other requirements also apply and must be met – see item # 40. If “No,” continue to #39c.

c. Did the individual(s) supervising residents or fellows throughout their performing the entire QI effort?

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

41. Did this specific QI effort have any additional participation requirement for MOC? (E.g., participants required to collect data regarding their patients.)

☐ Yes ☒ No  If “Yes,” describe:

Individuals who want their participation documented for MOC must additionally complete an attestation form, confirming that they met/worked with others as described in this report and reflecting on the impact of the QI initiative on their practice or organizational role. Following approval of this report, the UMHS QI MOC Program will send to participants an email message with a link to the online attestation form.

K. Sharing Results

42. Are you planning to present this QI project and its results in a:

☐ Yes ☒ No  Formal report to clinical leaders?

☐ Yes ☒ No  Presentation (verbal or poster) at a regional or national meeting?

☐ Yes ☒ No  Manuscript for publication?

L. Project Organizational Role and Structure
43. UMHS QI/Part IV MOC oversight – indicate whether this project occurs within UMHS, AAVA, or an affiliated organization and provide the requested information.

☒ University of Michigan Health System
  • Overseen by what UMHS Unit/Group? (name):
  • Is the activity part of a larger UMHS institutional or departmental initiative?
    ☒ No   ☐ Yes – the initiative is (name or describe):

☐ Veterans Administration Ann Arbor Healthcare System
  • Overseen by what AAVA Unit/Group? (name):
  • Is the activity part of a larger AAVA institutional or departmental initiative?
    ☐ No   ☐ Yes – the initiative is:

☐ An organization affiliated with UMHS to improve clinical care
  • The organization is (name):
  • The type of affiliation with UMHS is:
    ☐ Accountable Care Organization (specify which member institution):
    ☐ BCBSM funded, UMHS lead state-wide Collaborative Quality Initiative (specify which):
    ☐ Other (specify):