QI Project Application for Part IV MOC Eligibility

Complete the following project description 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. Actions regarding the application depend on the stage of the project, as described below. As stages are accomplished, you may submit updates of the application with the description of planned activities replaced by descriptions of actual activities performed. An application describing the completed project is required. Submitting earlier versions helps assure that when planned activities are carried out, they will meet Part IV requirements.

Preliminary approval. Plans have developed for the expected activities, but little actual work has been performed.

Part IV credit designation. Baseline data have been collected and the intervention performed, with completion of both steps documented on an application (or application update). The project has demonstrated its operational feasibility and the likelihood that subsequent data collections and adjustment will be performed.

Participation ("attestation") forms provided. The project has been completed with the expected sequence of activities performed and documented on an application (or application update), which is the "final report" on the project.

The introductory section asks for basic operational information. The next four sections ask about the project's activities organized within a basic sequential Plan–Do–Check–Act /Adjust–Recheck outline. The following section asks how physicians participate in the project. The last section asks about the relationship of this project to other UMHS institutional QI initiatives. Questions are in bold fond 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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A. Introduction

1. Date *(this version of the application):* 12/12/2014

2. Title of QI project: Prospective identification of patients with severe asthma who are likely to have Refractory Asthma.

3. Time frame

a. At what stage is the project?

☐ Design is complete, but not yet initiated
☐ Initiated and now underway
X Completed

Note: an *Annual Project Progress Report* form must be submitted annually in January while the project is underway and a final one submitted at the project's conclusion.

b. Time period

(1). Date physicians begin participating (may be in design phase): PRIOR TO *01/04/13*
(**2). End date**: ☒ actual _12/12/14___ ☐ expected

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

a. Name Manuel Arteta
b. Title: Director, Pediatric Asthma Wellness Program
c. Institutional/organizational unit/affiliation: Pediatric Pulmonology, Department of Pediatrics, University of Michigan Medical School
d. Phone number: 734-764-4123
e. Email address: marteta@umich.edu
f. Mailing address: University of Michigan Health System, 1500 E Medical Center Drive, Room L2221, Box 5212, Ann Arbor Michigan 48109-5212

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

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?
The Pediatric Asthma Wellness Program (CAWP) was originally started at the request of the UMHS Chief Medical Officer to address the problem of overutilization of services by selected M-Care asthma patients. Since the initiation of the program, we have reduced the emergency department and hospital admissions of enrolled patients compared to controls, and we have been able to discharge the majority of patients enrolled in the program after fulfilling the goal of attaining proper patient/family education and control of the disease. However, the disease activity of some patients continued causing significant ongoing symptoms and frequent exacerbations despite receiving similar attention and intervention as the patients whose disease was successfully controlled. In the past decade there has been wider recognition of an asthma phenotype named refractory asthma that may not respond readily to standard therapy and may require a more individualized approach to attain an acceptable therapeutic balance of potential benefit and side effects, and minimize cost. A systematic approach to identifying these patients is required.

b. Project aim. What aspects of the problem does this project aim to improve?
The aim of this project is to screen patients with severe asthma that may have refractory asthma.

8. Patient population. What patient population does this project address.
Pediatric (age 3–18 years) asthma patients seen in a special "high risk" Pediatric Pulmonary Clinic ("Children's Asthma Wellness Program") for children with at least two previous emergency department visits or a hospitalization for asthma. These children have difficult-to-treat asthma due to either severe disease or poor compliance with therapy. The clinic emphasizes case management and patient education.

9. Targeted causes. What are the primary underlying/root causes for the problem (see 6.a) that the project can address?
The concept of Refractory Asthma is relatively new and not widely considered when managing children with asthma.

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?
The main outcome measure for this project will be number of patients with severe asthma screened for possible refractory asthma. The numerator will be the number of patients with severe asthma screened for refractory asthma, and the denominator will be the number of patients with severe asthma seeing in clinic.

b. Are the measures nationally endorsed? If not, why were they chosen?
The definition of refractory asthma is not uniform in the literature; hence it is difficult to estimate the true disease prevalence. Most asthma is mild to moderate, about 5 – 10 % have difficult to control asthma, some of these patients may have refractory asthma.

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

d. How reliable are the data being collected for the purpose of this project?
100% reliable.

e. How are data to be analyzed over time, e.g., simple comparison of means, statistical test(s)?
In our clinic we will identify the patients with severe persistent asthma according with the National Heart, Lung, and Blood Institute - Expert Panel Report III guidelines, these patients will be screened for refractory asthma using American Thoracic Society guidelines, and then we will calculate the percentage of screened population over the intervention period with the goal of screening the whole target population. This percentage will be monitored longitudinally.

f. To whom are data reported?
Division chief

g. When did the baseline data collection occur?
January 2013.

12. Specific performance objectives

a. What is the overall performance level(s) at baseline? There was no screening for possible refractory asthma in our population as this is a new concept in Pediatric Asthma

Time Period	Patients with severe asthma	
	N	Screened for possible refractory asthma
Baseline: January 2013	0	0 (0%)

b. What are the targets for future performance on the measures?
The current rate of screened patients is 0%. Up to this point there has not been systematic approach to screen for refractory asthma. Our target is 90 % we hope to identify the vast majority of patients with severe asthma that may have refractory asthma.

c. How were the performance targets determined, e.g., regional or national benchmarks?
As far as we aware, there are no national benchmarks for screening for possible refractory asthma.

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

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

C. Do

14. Intervention(s).

a. Describe the interventions implemented as part of the project.
Physicians and asthma clinic coordinator identify patients with severe asthma. The identified patients are screened for refractory asthma using a printed form based on the American Thoracic Society guidelines.

b. How do the interventions address underlying/root causes (see #9)?
The above intervention will allow identification of patients that may have refractory asthma.

15. Who is involved in carrying out the intervention(s) and what are their roles?
Drs. Arteta, Hershenson, and Ramirez, and our clinic coordinator Karla Stoermer-Grossman identified the patients with severe persistent asthma and screened for possible refractory asthma.

16. When will/did the intervention(s) occur?
1/04/2013 - 1/20/2014

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)?

X☐ Yes ☐ No – If no, describe how this data collection

18. Data collection following the intervention.

a. The collection of performance data following the intervention either:
Has occurred on: 1/04/2013 - 1/20/2014

b. If the data collection has occurred, what is post-intervention performance level?

Time Period	Patients with severe asthma	
	N	Screened for possible refractory asthma
Baseline: January 2013	0	0 (0 %)
Post-intervention 1/04/2013 - 1/20/2014	14	7 (50%)

E. Act/Adjust

19. Following the collection of post-intervention data:

a. When did/will the review of post-intervention data and plans for adjustments occur?
January 2014

b. How did/will the following processes occur:

- **Review the most recent performance data to identify current problems**
- **Analyze the current underlying causes of those problems**
- **Redesign the intervention to address underlying causes**

The team (Drs. Arteta, Ramirez and Hershenson, and Karla Stoermer-Grossman, RN) met in January 2014 to review the data, identify barriers involved in completing the screening process consider alternatives that could be implemented, and develop a plan now feasible given the capabilities of the newly adopted electronic medical record (i.e MiChart/Epic). A SmartFrom was created to improve the screening process; an additional benefit of this intervention was that all steps of the screening process became part of the patient's medical record.

c. When did/will the adjustment (second intervention) occur?

Initiated January 2014

d. If the adjustment has occurred, (1) what problems were identified in the review and (2) what adjustments/interventions occurred to addressed those problems?

(1) Problems. Fifty percent of patients with severe asthma seeing in our clinic were screened for possible refractory asthma. The major problems identified was only half of target population was captured with the process in place.

(2) Adjustments. The plan was increase the alertness level of the team working in clinic and to build a smart form in MiChart to optimize the capture of patients with severe asthma seeing in our clinic and screen for possible refractory asthma.

20. Data collection following the adjustment(s).

a. The collection of performance data following the adjustment(s) either:

Will occur on:

Has occurred on: Between 1/20/2014 - 12/11/2014

b. If the data collection has occurred, what is post-adjustment(s) performance level?

Time Period	Patients with severe asthma	
	N	Screened for possible refractory asthma
Baseline: January 2013	0	0 (0 %)
Post-intervention 1/04/2013 - 1/20/2014	14	7 (50%)
Post-adjustment 1/20/2014 - 12/5/2014	9	9 (100%)

21. Following the third (post-adjustment) collection of data:

a. When did/will the review of post-adjustment data occur?

12/11/14

b. How did/will the following processes occur:

- **Review the most recent performance data to identify current problems**
- **Analyze the current underlying causes of those problems**
- **Redesign the intervention to address underlying causes**

The team (Drs. Arteta, Ramirez and Hershenson, and Karla Stoermer-Grossman) reviewed the data in mid December 2014, looked for barriers involved in completing the screening process, consider alternatives that could be implemented, and develop a plan that is cost-effective within our resources.

c. If the post-adjustment review has occurred, (1) what problems were identified in the review and (2) what adjustments/interventions occurred to addressed those problems?

(1) Problems. No problem was identified. During January - December 2014, the rate of patients with severe persistent asthma screened for possible refractory asthma increased to a level exceeding our goal of 90%. We think this was product of the adjustment made early in the year.
(2) Adjustments. We decided to sustain the current interventions and incorporate this practice to the routine process in our clinic. No additional interventions are planned, we will continue to monitor the performance of our screening process.

22. How many subsequent PDCA cycles are to occur?

We will continue to screen all patients with severe persistent asthma for refractory asthma for the indefinite future. We will complete a comprehensive evaluation of all identified patients to either confirm or rule out the presence of refractory asthma. This will allow for a more individualized therapy optimizing the benefits of drug therapy and minimizing side effects.

23. How will the project standardize processes to maintain improvements?

It will be important to review the results of this process in our quarterly meetings to maintain this intervention in the future.

24. Do other parts of UMHS 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 can communicate our findings to other chronic disease management programs through the Quality Management Program, Asthma Quality Improvement Steering Committee and Faculty Group Practice.

F. 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

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

Physicians will provide medical care, review data (tabulated by Karla Stoermer-Grossman), meet with team members to discuss interventions and re-evaluate after the intervention. Drs. Arteta, and Hershenson have been involved in leading the Pediatric Asthma Wellness Program since its inception and Dr. Ramirez was became a member of the Program in July, 2012 they all will continue to be involved in the future. Dr. Thomas Saba became part of the CAWP team in July 2014 and has actively participated in this project since then.

26. If not addressed in #25, in conjunction with each cycle of data collection, what local (physician-level or practice/unit-level) feedback report and what overall project level report will be provided to physicians?

27. If not addressed in # 25, how are reflections of individual physicians about the project utilized to improve the overall project?

28. How will the project ensure meaningful participation by physicians who subsequently request credit for Part IV MOC participation?
As project lead, Dr. Arteta will verify the involvement of Drs. Hershenson and Ramirez. Dr. Saba has also being part of the project since July 2014.

29. What is the approximate number of physicians anticipated to participate in this project? ***[Provide number or range – by specialties and/or subspecialties if more than one.]***
Currently four, three of them (Drs. Ramirez, Hershenson, and Arteta) have participated since the initial planning. Dr. Thomas Saba has been part of it since July 2014 and will participate in future projects.

G. Project Organizational Role and Structure

30. Is this project part of a larger UMHS institutional or departmental initiative?
X☐ Yes ☐ No *If No, go to #31.*

a. What UMHS unit/group is overseeing or coordinating the larger initiative?
Our program is supervised by the Quality Management Program, Asthma Quality Improvement Steering Committee and Faculty Group Practice.

b. What is the larger initiative?
The Quality Management Program, currently led by Steven J. Bernstein, was originally designed to improve the management of patients with chronic diseases in large part through self-management. The Asthma Quality Improvement Steering Committee supervises all asthma initiatives in the Health System. The FGP partially funds our program. The original mission of the Pediatric Asthma Wellness Program was to reduce excessive health utilization by a small number of asthma patients whose disease was in poor control, in part due to non-compliance with medications, but also due to the underlying refractory disease activity.

c. How does this project advance it?
This project will improve the delivery of therapy with an optimal therapeutic ratio and minimize cost by providing a more individualized therapy.

d. Is this project coordinated with related quality improvement activities?
Yes, see above.

e. Has someone at a higher institutional level authorized/approved this project? If so, who?
Not this specific project, but the program has the support of hospital leaders such as Skip Campbell, David Spahlinger, Steven Bernstein and Valerie Castle.

31. What is the organizational structure of the project? ***[Include who is involved, their general roles, and reporting/oversight relationships.]***
Four physicians currently participate in this program, doctors Ixsy Ramirez, Marc Hershenson, Manuel Arteta, and Thomas Saba. Manuel Arteta is the Program Director. Ixsy Ramirez has actively participated in all phases of this project, and Thomas Saba has recently been incorporated as part of the Program. Marc Hershenson is the Director of Pediatric Pulmonology, he is committed to this program and will devote whatever resources he can to assure the completion of the project and overall success of the program.

32. Are resources needed beyond those under the control of the project lead(s) ?
☐ Yes X☐ No *If No, go to #33.*

a. What types of resources are needed and who has agreed to provide them?

33. To what oversight person or group will project-level reports be submitted for review?
See above. Our program is supervised by the Quality Management Program, Asthma Quality Improvement Steering Committee and Faculty Group Practice.

34. Have UMHS physicians who will participate in this project had the opportunity to participate in a UMHS Part IV project within the past two years?
X☐ Yes ☐ No

a. If "Yes," why do these physicians need more frequent opportunities for Part IV credit *(e.g., board gives additional credit for more Part IV activities in a time period; qualify for CMS incentive payment)*?
Drs. Arteta and Hershenson have also participated in a project designed to improve show rate to the asthma clinic of the Children Asthma Wellness Program. The American Board of Pediatrics requires additional Part IV credit for board certification.