

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

Positive Airway Pressure (PAP) Device Cleaning Awareness in Adult Patients with Sleep-Disordered Breathing and their Caregivers

Instructions

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

Completing the report. The report documents completion of each phase of the QI project. (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 UMHS Part IV MOC Program will provide a preliminary review, checking that the information is sufficiently clear, but not overly detailed. This simplifies completion and review of descriptions of remaining activities.

Questions are in bold font. 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:

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Report Outline

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QI Project Report for Part IV MOC Eligibility

A. Introduction

1. **Date 4/26/2017**

2. **Title of QI effort/project** *(also insert at top of front page)*: Positive Airway Pressure (PAP) Device Cleaning Awareness in Adult Patients with Sleep-Disordered Breathing and their Caregivers

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)*: 11/16/2016

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)*: 4/26/2017

4. **Key individuals**

a. **QI project leader**

Name: Ryan Donald, MD
Title: Sleep Medicine Fellow
Organizational unit: Sleep Medicine, Neurology
Phone number: 734-996-4457 pg #21348
Email address: rydon@med.umich.edu
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 Sleep Disorders Center
 Med Inn Building C728
 1500 E. Medical Center Dr. SPC 5845
 Ann Arbor MI 48109-5845

b. **Clinical leader who oversees project leader regarding the project**

Name: Anita Shelgikar, MD
Title: Program Director, Sleep Medicine Fellowship
Organizational unit: Sleep Medicine, Neurology
Phone number: 734-996-4457
Email address: avalanju@med.umich.edu
Mailing address:
 Sleep Disorders Center
 Med Inn Building C728
 1500 E. Medical Center Dr. SPC 5845
 Ann Arbor MI 48109-5845

5. **Participants**

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

Profession	Number <i>(fill in)</i>
Practicing Physicians	1

Residents/Fellows	3
Physicians' Assistants	0
Nurses (APNP, NP, RN, LPN)	0
Other Licensed Allied Health (e.g., PT/OT, pharmacists, dieticians, social workers)	0

b. Approximately how many physicians (by specialty/subspecialty and by training level) and physicians' assistants participated for MOC?

Profession	Specialty/Subspecialty (fill in)	Number (fill in)
Practicing Physician	The American Board of Psychiatry and Neurology (Neurology and Sleep Medicine)	1
Fellow	The American Board of Internal Medicine (Internal Medicine)	1
Fellow	The American Board of Psychiatry and Neurology (Neurology)	1
Fellow	The American Board of Psychiatry and Neurology (Child Neurology)	1

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

- Internal institutional funds
- Grant/gift from pharmaceutical or medical device manufacturer
- Grant/gift from other source (e.g., government, insurance company)
- Subscription payments by participants
- Other (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):

Adult patients or the caregivers of adult patients with the diagnosis of sleep disordered breathing and who are treated with noninvasive positive pressure ventilation (NIPPV) seen in the University of Michigan Sleep Disorders Center Fellow Clinic.

8. General goal

a. Problem/need. What is the problem (“gap”) in quality that resulted in the development of this project? Why is important to address this problem?

NIPPV machines contain multiple components that need to be cleaned regularly. Some published literature suggests that proper use of NIPPV supplies (filters, etc.) may reduce risk of infection. Further discussions with our patients have revealed that many are unaware of manufacturer recommendations for NIPPV equipment cleaning. While scant scientific studies exist on this topic, our patient interactions and clinical experiences indicate that when patients do not know how or when to clean NIPPV supplies they may ultimately discontinue NIPPV use because the equipment

“smells bad” or “doesn’t seem to work right.” This suggests that lack of NIPPV supply cleaning may contribute to NIPPV non-adherence. Factors that lead to poor NIPPV adherence are of clinical concern because lack of NIPPV use for obstructive sleep apnea is known to be associated with increased risk of multiple diseases, including mood disorders, cardiovascular and neurovascular disease.

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

The goal is to find out the current understanding of manufacturer recommendations for the cleaning of NIPPV within the population assessed and then to see if an educational intervention may increase this understanding.

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

(<http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf>)

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

- | | |
|---|--|
| <input type="checkbox"/> Patient Care and Procedural Skills | <input type="checkbox"/> Medical Knowledge |
| <input checked="" type="checkbox"/> Practice-Based Learning and Improvement | <input checked="" type="checkbox"/> Interpersonal and Communication Skills |
| <input type="checkbox"/> Professionalism | <input checked="" type="checkbox"/> 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 or their caregivers who know the recommendations for how often to clean each piece (mask, tubing, humidifier, and filter) of their NIPPV device
 - Numerator – The number of patients or their caregivers who know the recommendations for how often to clean the mask, tubing, humidifier, and filter of their NIPPV device
 - Denominator – Total number of patients or their caregivers who returned surveys regarding their understanding of recommendations for how often to clean each piece of their NIPPV device
- **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): Wished to assess the patients seen in the University of Michigan Sleep Disorders Center Fellow Clinic.
- **This is a measure of:**
 - Process – activities of delivering health care to patients
 - Outcome – health state of a patient resulting from health care

Measure 2

- **Name of measure** (e.g., *Percent of . . . , Mean of . . . , Frequency of . . .*):
 - Percent of patients or their caregivers who know the recommendations for what solution they should use to clean each piece (mask, tubing, humidifier, and filter) of their PAP device?
 - Numerator – The number of patients or their caregivers who know the recommendations for what solution should be used to clean the mask, tubing, humidifier, and filter of their NIPPV device
 - Denominator – Total number of patients or their caregivers who returned surveys regarding their understanding of recommendations for what solution should be used to clean each piece of their NIPPV device

- **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*): Wished to assess the patients seen in the University of Michigan Sleep Disorders Center Fellow Clinic.

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

(If more than two measures are tracked across the two cycles, copy and paste the section for a measure and describe the additional measures.)

12. Baseline performance

a. **What were the beginning and end dates for the time period for baseline data on the measure(s)?**

10/26/2016 to 11/16/2016

b. **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.*

Measure	Baseline (10/26/16 – 11/16/16)	Post-Intervention (??/??/?? – ??/??/??)	Post-Adjustment (??/??/??–??/??/??)
How often to clean?			
% correct on individual measures:	N=34 patients		
Mask	91%		
Tubing	71%		
Humidifier	74%		
Filter	91%		
% correct on all 4 cleaning measures	59%		

What solution to clean with?			
% correct on individual measures:	N=34 patients		
Mask	82%		
Tubing	59%		
Humidifier	62%		
Filter	79%		
% correct on all 4 cleaning measures	53%		
Both how often to clean and what solution to clean with?	N=34 patients		
% correct on all 8 cleaning measures	44%		

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].”*
 The aim of this QI project is to improve the knowledge in the target population of how often to clean and what substance to clean with for each of the above four NIPPV pieces of equipment to greater than or equal to 90% by 6/30/2017.
- b. **How were the performance targets determined, e.g., regional or national benchmarks?**
 Performance targets were determined by consensus of the sleep physicians and fellows associated with the QI project. No known national or regional benchmarks exist.

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)*
 Anita Shelgikar, MD – Sleep Medicine Physician, Clinical leader
 Ryan Donald, MD – Sleep Medicine Fellow, QI project leader
 Abbey Dunn, MD – Sleep Medicine Fellow, QI project member
 Sunitha Nune, MD – Sleep Medicine Fellow, QI project member
- b. **How?** *(e.g., in a meeting of clinic staff)*
 Data review, roots cause analysis, and intervention / countermeasure discussions were performed during regularly scheduled Wednesday meetings.
- c. **When?** *(e.g., date(s) when baseline data were reviewed and discussed)*
 11/16/2016

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:

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

15. What were the primary underlying/root causes for the <u>problem(s)</u> 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.)
Not enough time in clinic to educated patients on cleaning of NIPPV equipment	Letter on NIPPV equipment cleaning sent by the sleep medicine fellows to the patients	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]
Durable Medical Equipment companies were not adequately educating patients on the maintenance of their NIPPV equipment	Letter on NIPPV equipment cleaning sent by the sleep medicine fellows to the patients	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]
Different recommendations between DME companies; no universal recommendations on cleaning of NIPPV equipment	Compiled a set of recommendations for our clinic for NIPPV equipment cleaning that is outlined in the letter to the patients	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]

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

C. Do

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

The letter was approved by the UMHS legal department for distribution to patient's on 2/10/17. The clinic manager was informed via email of this intervention and was given a copy of the letter.

On 2/15/17 the letters were sent to the return visit patients in the fellow clinic who are on NIPPV therapy. The charts were all screened for documentation for NIPPV order placement and/or current use. The letters were sent via MiChart to the patient's preferred mode of receipt. Clinics that were assessed ranged from dates 2/27/17 to 3/3/17.

On 2/22/17 the letters were sent to the return visit patients in the fellow clinic who are on NIPPV therapy. The charts were all screened for documentation for NIPPV order placement and/or current use. The letters were sent via MiChart to the patient's preferred mode of receipt. Clinics that were assessed ranged from dates 3/6/17 to 3/10/17.

On 3/1/17 the letters were sent to the return visit patients in the fellow clinic who are on NIPPV therapy. The charts were all screened for documentation for NIPPV order placement and/or current use. The letters were sent via MiChart to the patient's preferred mode of receipt. Clinics that were assessed ranged from dates 3/13/17 to 3/17/17.

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)?

2/27/17 to 3/17/17

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.*

Measure	Baseline (10/26/16 – 11/16/16)	Post-Intervention (2/27/17 – 3/17/17)	Post-Adjustment (??/??/??-??/??/??)
How often to clean?	N=34 patients	N=16 patients (with letter)	
% correct on individual measures:			
Mask	91%	94%	
Tubing	71%	81%	
Humidifier	74%	81%	
Filter	91%	75%	
% correct on all 4 cleaning measures	59%	69%	
What solution to clean with?			
% correct on individual measures:	N=34 patients	N=16 patients (with letter)	
Mask	82%	94%	
Tubing	59%	81%	
Humidifier	62%	75%	
Filter	79%	25%	
% correct on all 4 cleaning measures	53%	25%	
Both how often to clean and what solution to clean with?			
% correct on all 8 cleaning measures	N=34 patients 44%	N=16 patients (with letter) 19%	

c. Did the intervention(s) produce the expected improvement toward meeting the project's specific aim (item 13.a)?

Improvement was observed in all domains assessed, except for both filter categories which failed to show improvement.

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)

3/17/17

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.

22. What were the primary underlying/root causes for the <u>problem(s)</u> following the <u>intervention(s)</u> that the project can address?	23. What adjustments/second intervention(s) addressed this cause?	24. Who was involved in carrying out each adjustment/second intervention? (List the professions/roles involved.)
Patients are unable to distinguish filter types, due to lack of appropriate detail concerning filter type and cleaning recommendations in patient educational intervention	Clarified filter types on edited patient education intervention material.	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]
Survey questions may not have been specific enough to distinguish between filter types and may have been confusing to the patients.	Edited survey in order to better distinguish between filter types.	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]

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.)
3/27/17

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)?

3/27/17 – 4/14/17

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.

Measure	Baseline (10/26/16 – 11/16/16)	Post-Intervention (2/27/17 – 3/17/17)	Post-Adjustment (3/27/17 – 4/14/17)
How often to clean?	N=34 patients	N=16 patients (with letter)	N=5 patients (with letter)
% correct on individual measures:			
Mask	91%	94%	100%
Tubing	71%	81%	60%
Humidifier	74%	81%	60%
Filter	91%	75%	
* Disposable			80%
* Reusable			60%
% correct on all 4 cleaning measures	59%	69%	0%
What solution to clean with?	N=34 patients	N=16 patients (with letter)	N=5 patients (with letter)
% correct on individual measures:			
Mask	82%	94%	80%
Tubing	59%	81%	100%
Humidifier	62%	75%	80%
Filter	79%	25%	60%
% correct on all 4 cleaning measures	53%	25%	40%
Both how often to clean and what solution to clean with?	N=34 patients	N=16 patients (with letter)	N=5 patients (with letter)
% correct on all 8 cleaning measures	44%	19%	0%

c. Did the adjustment(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)?

Continued improvement was noted in how often to clean masks and continued improvement in knowledge of tubing and humidifier cleaning solutions was also seen. However, overall percent correct on all 8 measures decreased throughout.

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

H. Readjust

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)
4/17/17

Use the following table to outline the next plan that was developed: #30 the primary causes, #31 the adjustments(s)/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.

30. What were the primary underlying/root causes for the <u>problem(s)</u> following the <u>adjustment(s)</u> that the project can address?	31. What further adjustments/ intervention(s) might address this cause?	32. Who would be involved in carrying out each further adjustment/intervention? (List the professions/roles involved.)
Unclear how often patients received the education intervention.	Would use a different modality to provide the patient with the educational intervention (i.e. video, stickers, handouts, etc.)	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]
QI team knowledge of filter types was uncertain.	Would review details concerning filters specific to certain machines	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]
Poor clarity of educational intervention description of	Would include more detail about filters specific to certain	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr.

filter types.	machines	Shelgikar]
Difficulty surveying sufficient number of patients who received the intervention.	Would lengthen time of data collection / observation	Sleep Physicians [Dr. Donald, Dr. Dunn, Dr. Nune, Dr. Shelgikar]

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.
- 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

33. 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 difficulty getting initial countermeasure (education letter) approved by UMHS Legal Office. We addressed this by having multiple members of our group email and call different contact people in the Legal Office until we received a response.

Lack of clear guidelines from professional societies concerning NIPPV maintenance resulted in the need for the QI team to develop their own recommendations.

Larger populations would allow for greater statistical power of our QI project.

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

The health system is large and can be difficult to navigate at times. We learned that getting approval from multiple entities in the health system takes more time than we had initially anticipated.

Multiple different filter systems are utilized with different NIPPV machines.

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

Sleep medicine clinicians should familiarize themselves with current filter types commercially available used by different NIPPV machines. Sleep medicine clinicians should provide detailed information on NIPPV cleaning recommendations to patients.

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

The QI team presented the QI project, results and recommendations to all sleep medicine clinicians during the Sleep Medicine Grand Rounds.

37. Describe any plans for sustaining the changes that were made.

We will add our education letter template to the PAP titration results notification letter template that is used by all Sleep Disorders Centers physicians.

J. Minimum Participation for MOC

38. 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.*

39. 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 40.*

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.*

40. 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**41. 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**42. 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*): Department of Neurology/Sleep Disorders Center

- **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*):