

**Quality ID #279: Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy**  
– National Quality Strategy Domain: Effective Clinical Care  
– Meaningful Measure Area: Management of Chronic Conditions

**2021 COLLECTION TYPE:**  
MIPS CLINICAL QUALITY MEASURES (CQMS)

**MEASURE TYPE:**  
Process

**DESCRIPTION:**  
Percentage of visits for patients aged 18 years and older with a diagnosis of obstructive sleep apnea who were prescribed positive airway pressure therapy who had documentation that adherence to positive airway pressure therapy was objectively measured

**INSTRUCTIONS:**  
This measure is to be submitted a minimum of **once per performance period** for patients with sleep apnea seen during the performance period. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

**NOTE:** Patient encounters for this measure conducted via telehealth (e.g., encounters coded with GQ, GT, 95, or POS 02 modifiers) are allowable.

**Measure Submission:**  
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

**DENOMINATOR:**  
All patients aged 18 years and older with a diagnosis of sleep apnea

**Denominator Criteria (Eligible Cases):**

Patients aged  $\geq 18$  years on date of encounter

**AND**

**Diagnosis for sleep apnea (ICD-10-CM):** G47.30, G47.33

**AND**

**Patient encounter during the performance period (CPT):** 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

**AND**

**Positive airway pressure therapy was prescribed:** G8852

**NUMERATOR:**  
Patient visits with documentation that adherence to positive airway pressure therapy was objectively measured

**Definition:**

**Objectively Measured** - is defined as positive airway pressure machine-generated measurement of hours of use.

**Numerator Options:**

***Performance Met:***

Objective measurement of adherence to positive airway pressure therapy, documented (**G8851**)

**OR**

***Denominator Exception:***

Documentation of reason(s) for not objectively measuring adherence to positive airway pressure therapy (e.g., patient didn't bring data from continuous positive airway pressure [CPAP], therapy not yet initiated, not available on machine) (**G8854**)

**OR**

***Performance Not Met:***

Objective measurement of adherence to positive airway pressure therapy not performed, reason not given (**G8855**)

**RATIONALE:**

This recommendation is based on overwhelming evidence at all levels indicating patients with obstructive sleep apnea (OSA) overestimate their positive airway pressure use time. Level I and Level II studies indicate that objectively-measured nightly continuous positive airway pressure (CPAP) "time on" ranges from 3.5 hours/night in minimally symptomatic new patients to 7.1 hours/night in established users (Kushida et al, 2006). The success of any positive airway pressure device therapy depends primarily on patient adherence, which can be enhanced by education, proper mask/interface fit, frequent follow-up by the clinician and durable medical equipment provider, and finally, A.W.A.K.E. (Alert Well And Keeping Energetic) meetings (ICSI, 2007). When objective adherence is assessed and an intervention is employed –either in the clinic or via the telephone, use is increased. Meter reads (on the machines) or card reads provide a longitudinal assessment of use and prevent the potential for overuse of stimulant therapy and daytime testing of sleepiness with multiple sleep latency tests.

Numerous studies have shown that patient adherence to CPAP is low or over-estimated by patients. A 2006 study assessed OSA severity, continuous positive airway pressure adherence, and factors associated with CPAP adherence among a group of patients with OSA receiving care at a publicly-funded county hospital. The findings indicated that CPAP adherence was low, with women having a higher likelihood of non-adherence than men. When individuals without follow-up were assumed to be non-adherent, the overall compliance rate was 30.4%, and women were 1.72 (95% CI, 1.03-2.88) times more likely to be noncompliant than men, adjusting for race, marital status, and age (Joo et al, 2007). Another study by Kribbs et al (Level I) found that subjective and covertly monitored objective CPAP adherence were discordant and that OSA patients in the aggregate overestimate subjective CPAP adherence compared with objective adherence measurements obtained by microprocessor. Adherence was arbitrarily defined as  $\geq 4$  hours of CPAP usage for  $\geq 70\%$  of the nights monitored. Although 60% of patients subjectively reported nightly use of CPAP for a mean of 106.9 days, only 16 of 35 (46%) were objectively using CPAP at least 4 hours per night on 70% of the nights. Patients over-estimated actual CPAP use by  $69 \pm 110$  min. (Gay et al, 2005)

OSA is a chronic disease that rarely resolves except with substantial weight loss or successful corrective surgery. As with other chronic diseases, periodic follow-up by a qualified clinician (eg, physician or advanced practice provider) is necessary to confirm adequate treatment, assess symptom resolution, and promote continued adherence to treatment. Initial treatment of OSA requires close monitoring and early identification of difficulties with PAP use, as adherence over the first few days to weeks has been shown to predict long-term adherence. Objective monitoring of PAP therapy should be performed to complement patient reporting of difficulties with PAP use, as patients often overestimate their use of PAP treatment. (Patil, et al, 2019)

**CLINICAL RECOMMENDATION STATEMENTS:**

CPAP usage should be objectively monitored to help assure utilization (Level 1). Close follow-up for PAP usage and problems in patients with obstructive sleep apnea (OSA) by appropriately trained health care providers is indicated to establish effective utilization patterns and remediate problems, if needed. This recommendation is based on 61 studies that examined management paradigms and collected acceptance, utilization, and adverse events; 17 of these

studies qualified as Level I. This is especially important during the first few weeks of PAP use and can prove to be beneficial for the longitudinal care of the patient. (Kushida et al, 2006)

Adequate follow-up, including troubleshooting and monitoring of objective efficacy and usage data to ensure adequate treatment and adherence, should occur following PAP therapy initiation and during treatment of OSA. (Patil et al, 2019)

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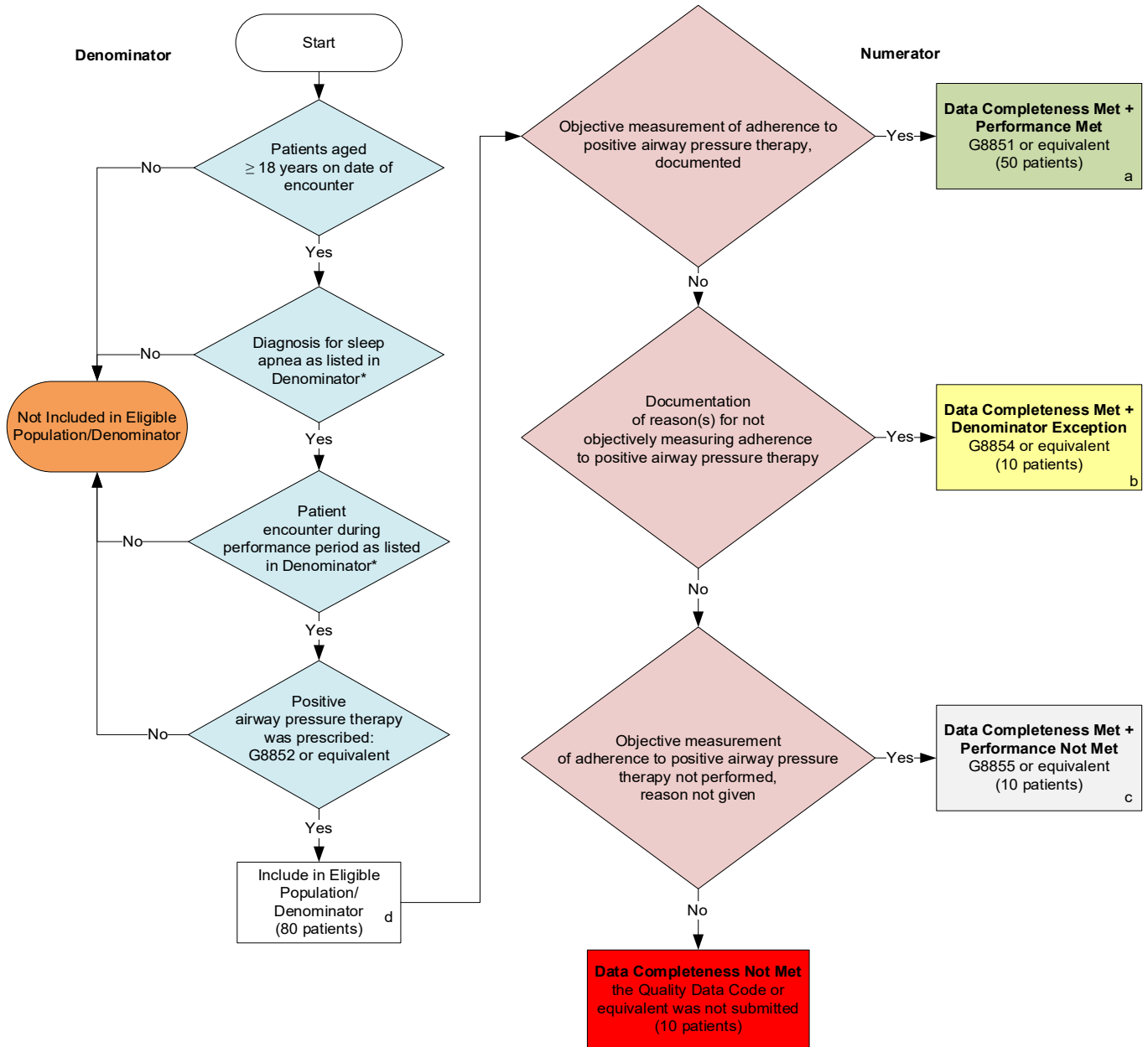
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**2021 Clinical Quality Measure Flow for Quality ID #279:  
Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy**

**Disclaimer:** Refer to the measure specification for specific coding and instructions to submit this measure.



**SAMPLE CALCULATIONS**

**Data Completeness=**  

$$\frac{\text{Performance Met (a=50 patients)} + \text{Denominator Exception (b=10 patients)} + \text{Performance Not Met (c=10 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate=**  

$$\frac{\text{Performance Met (a=50 patients)}}{\text{Data Completeness Numerator (70 patients) - Denominator Exception (b=10 patients)}} = \frac{50 \text{ patients}}{60 \text{ patients}} = 83.33\%$$

\* See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Process

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**2021 Clinical Quality Measure Flow Narrative for Quality ID #279:  
Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy**

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1. Start with Denominator
2. Check *Patients aged greater than or equal to 18 years on date of encounter*.
  - a. If *Patients aged greater than or equal to 18 years on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Patients aged greater than or equal to 18 years on date of encounter* equals Yes, proceed to check *Diagnosis for sleep apnea as listed in Denominator\**.
3. Check *Diagnosis for sleep apnea as listed in Denominator\**.
  - a. If *Diagnosis for sleep apnea as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Diagnosis for sleep apnea as listed in Denominator\** equals Yes, proceed to check *Patient encounter during performance period as listed in Denominator\**.
4. Check *Patient encounter during performance period as listed in Denominator\**.
  - a. If *Patient encounter during performance period as listed in Denominator\** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Patient encounter during performance period as listed in Denominator\** equals Yes, proceed to check *Positive airway pressure therapy was prescribed*.
5. Check *Positive airway pressure therapy was prescribed*.
  - a. If *Positive airway pressure therapy was prescribed* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
  - b. If *Positive airway pressure therapy was prescribed* equals Yes, include in *Eligible Population/Denominator*.
6. Denominator Population:
  - Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check *Objective measurement of adherence to positive airway pressure therapy, documented*.
  - a. If *Objective measurement of adherence to positive airway pressure therapy, documented* equals Yes, include in *Data Completeness Met and Performance Met*.
    - *Data Completeness Met and Performance Met* letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 50 patients in the Sample Calculation.
  - b. If *Objective measurement of adherence to positive airway pressure therapy, documented* equals No,

proceed to check *Documentation of reason(s) for not objectively measuring adherence to positive airway pressure therapy*.

9. Check *Documentation of reason(s) for not objectively measuring adherence to positive airway pressure therapy*:
  - a. If *Documentation of reason(s) for not objectively measuring adherence to positive airway pressure therapy* equals Yes, include in *Data Completeness Met and Denominator Exception*.
    - *Data Completeness Met and Denominator Exception* letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 patients in the Sample Calculation.
  - b. If *Documentation of reason(s) for not objectively measuring adherence to positive airway pressure therapy* equals No, proceed to check *Objective measurement of adherence to positive airway pressure therapy not performed, reason not given*.
10. Check *Objective measurement of adherence to positive airway pressure therapy not performed, reason not given*:
  - a. If *Objective measurement of adherence to positive airway pressure therapy not performed, reason not given* equals Yes, include in *Data Completeness Met and Performance Not Met*.
    - *Data Completeness Met and Performance Not Met* letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 10 patients in the Sample Calculation.
  - b. If *Objective measurement of adherence to positive airway pressure therapy not performed, reason not given* equals No, proceed to check *Data Completeness Not Met*.
11. Check *Data Completeness Not Met*:
  - a. If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

### **Sample Calculations**

Data Completeness equals Performance Met (a equals 50 patients) plus Denominator Exception (b equals 10 patients) plus Performance Not Met (c equals 10 patients) divided by Eligible Population/Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.5 percent.

Performance Rate equals Performance Met (a equals 50 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b equals 10 patients). All equals 50 patients divided by 60 patients. All equals 83.33 percent.

\* See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Process

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