# Quality ID #279: Sleep Apnea: Assessment of Adherence to Obstructive Sleep Apnea (OSA) Therapy

2025 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of obstructive sleep apnea (OSA) that were prescribed an evidence-based therapy that had documentation that adherence to therapy was assessed at least annually through an objective informatics system or through self-reporting (if objective reporting is not available).

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 (including but not limited to encounters coded with GQ, GT, POS 02, POS 10) are allowable. Please note that effective January 1, 2025, while a measure may be denoted as telehealth eligible, specific denominator codes within the encounter may no longer be eligible due to changes outlined in the CY 2024 PFS Final Rule List of Medicare Telehealth Services.*

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 obstructive sleep apnea who were prescribed an evidence-based therapy

Definition:
Evidence-based Therapy – includes positive airway pressure, oral appliances, positional therapies, hypoglossal nerve stimulation, or other devices with monitoring capabilities.

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Diagnosis for obstructive sleep apnea (ICD-10-CM): G47.33
AND
Patient encounter during the performance period (CPT): 98000, 98001, 98002, 98003, 98004, 98005, 98006, 98007, 98008, 98009, 98010, 98011, 98012, 98013, 98014, 98015, 98016, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350
AND
Evidence-based therapy was prescribed: M1227

NUMERATOR:
Patients with documentation that adherence to therapy was assessed at least annually through an objective informatics system or through self-reporting (if objective reporting is not available)

Definitions:
Documentation of adherence to therapy – includes a note documented in the patient's medical record that patient is adherent to the prescribed therapy for obstructive sleep apnea.
Objective Informatics – a telemonitoring system that shows data demonstrating patient adherence to the prescribed therapy for obstructive sleep apnea (i.e., CPAP machines with SD cards that store data).
Objective Reporting – data that are reported from an objective informatics or other data source and is not reported by the patient or parent/caregiver.
Self-Reporting – patient and/or parent/caregiver attests to compliance with prescribed therapy for obstructive sleep apnea, which is documented in the medical record.

Numerator Options:

| | |
|---|---|
| *Performance Met:* | Adherence to therapy was assessed at least annually through an objective informatics system or through self-reporting (if objective reporting is not available, documented) (G8851) |
| OR | |
| *Denominator Exception:* | Documentation of reason(s) for not objectively reporting adherence to evidence-based therapy (e.g., patients who have been diagnosed with a terminal or advanced disease with an expected life span of less than 6 months, patients who decline therapy, patients who do not return for follow-up at least annually, patients unable to access/afford therapy, patient's insurance will not cover therapy) (G8854) |
| OR | |
| *Performance Not Met:* | Adherence to therapy was not assessed at least annually through an objective informatics system or through self-reporting (if objective reporting is not available), 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 –ether 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 ≥ 4 hours of CPAP usage for ≥ 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 ± 110 min (Gay et al, 2005).

The short-term results show that PT [positional therapy] with the so-called tennis ball technique (both commercial waistband and self-made constructions) effectively reduces the time spent in supine sleeping position in patients with positional OSA. Furthermore, AHI, severity of the respiratory events, and EDS were significantly reduced when using PT (de Vries, 2015).

Custom made oral appliances (OA) may improve upper airway patency during sleep by enlarging the upper airway and/or by decreasing upper airway collapsibility (e.g., improving upper airway muscle tone). Mandibular repositioning appliances (MRA) cover the upper and lower teeth and hold the mandible in an advanced position with respect to the resting position. Tongue retaining devices (TRD) hold only the tongue in a forward position with respect to the resting position, without mandibular repositioning (Epstein, 2009).

Under ideal circumstances, patients with inadequate PAP utilization will have had an opportunity to consult with a sleep medicine professional to address barriers to adherence, although access to such resources may be limited in some areas. A threshold for adequate PAP adherence will vary between patients depending on their individual underlying medical history, symptomatology, disease severity, and response to PAP, and should be part of the discussion between the health care provider and patient (Kent, 2021).

Since its introduction in 1981, positive airway pressure (PAP) has been the most efficacious therapy and is often the first option for OSA patients. For patients with mild or moderate OSA, oral appliances may also be appropriate therapy. However, some patients find such devices to be intrusive, inconvenient, or intolerable. Surgical modification of the upper airway is also a viable treatment for selected patients (Morgenthaler, 2006).

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)

The AASM Treatment of Adult Obstructive Sleep Apnea with Positive Airway Pressure clinical practice guideline recommends that clinicians use positive airway pressure, compared to no therapy, to treat OSA in adults with excessive sleepiness (Patil, 2019).

The AASM Treatment of Obstructive Sleep Apnea and Snoring with Oral Appliance Therapy clinical practice guideline update recommends that sleep physicians prescribe oral appliances, rather than no therapy, for adult patients who request treatment of primary snoring (without obstructive sleep apnea) (Ramar, 2015).

The AASM Referral of Adults with Obstructive Sleep Apnea for Surgical Consultation clinical practice guideline recommends that clinicians discuss referral to a sleep surgeon with adults with OSA and BMI < 40 kg/m$^2$ who are intolerant or unaccepting of PAP as part of a patient-oriented discussion of alternative treatment options (Kent, 2021).

The AASM Referral of Adults with Obstructive Sleep Apnea for Surgical Consultation clinical practice guideline recommends that clinicians discuss referral to a bariatric surgeon with adults with OSA and obesity (class II/III, BMI ≥ 35) who are intolerant or unaccepting of PAP as part of a patient-oriented discussion of alternative treatment options (Kent, 2021).

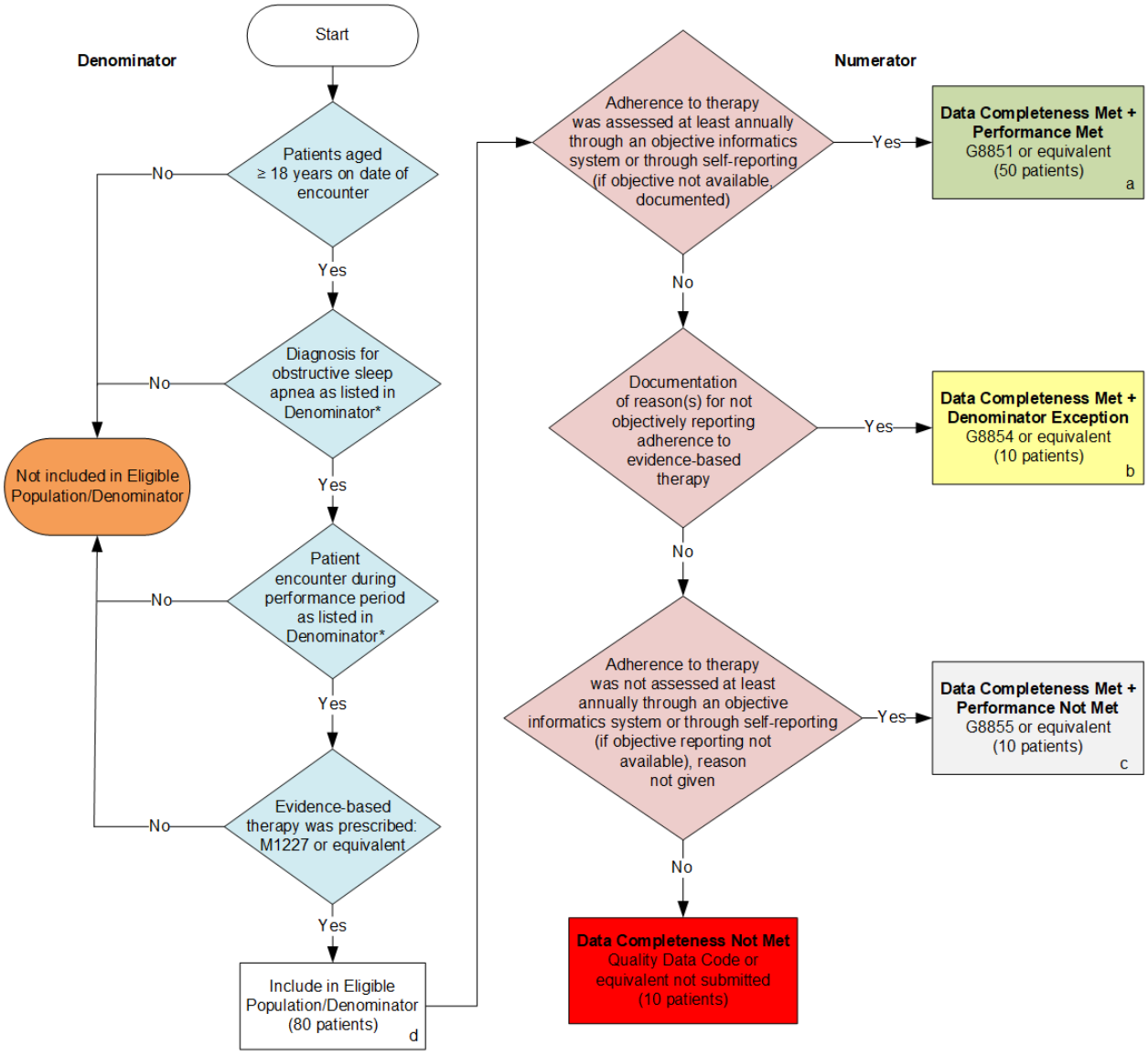
The AASM Referral of Adults with Obstructive Sleep Apnea for Surgical Consultation clinical practice guideline suggests that clinicians discuss referral to a sleep surgeon with adults with OSA, BMI < 40 kg/m$^2$, and persistent inadequate PAP adherence due to pressure-related side effects as part of a patient-oriented discussion of adjunctive or alternative treatment options (Kent, 2021).

The AASM Referral of Adults with Obstructive Sleep Apnea for Surgical Consultation clinical practice guideline suggests that clinicians recommend PAP as initial therapy for adults with OSA and a major upper airway anatomic abnormality prior to consideration of referral for upper airway surgery (Kent, 2021).

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).

## 2025 Clinical Quality Measure Flow for Quality ID #279:
## Sleep Apnea: Assessment of Adherence to Obstructive Sleep Apnea (OSA) Therapy

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




**SAMPLE CALCULATIONS**

**Data Completeness=**

Performance Met (a=50 patients) + Denominator Exception (b=10 patients) + Performance Not Met (c=10 patients) = 70 patients = **87.50%**
Eligible Population / Denominator (d=80 patients) = 80 patients

**Performance Rate=**

Performance Met (a=50 patients) = 50 patients = **83.33%**
Data Completeness Numerator (70 patients) – Denominator Exception (b=10 patients) = 60 patients

* See the posted measure specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency: Patient-Process



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## 2025 Clinical Quality Measure Flow Narrative for Quality ID #279: Sleep Apnea: Assessment of Adherence to Obstructive Sleep Apnea (OSA) Therapy

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

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 obstructive sleep apnea as listed in Denominator**.
3. Check *Diagnosis for obstructive sleep apnea as listed in Denominator**:
    a. If *Diagnosis for obstructive sleep apnea as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Diagnosis for obstructive 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 *Evidence-based therapy was prescribed*.
5. Check *Evidence-based therapy was prescribed*:
    a. If *Evidence-based therapy was prescribed* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Evidence-based 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 *Adherence to therapy assessed at least annually through an objective informatics system or through self-reporting (if objective not available, documented)*:
    a. If *Adherence to therapy was assessed at least annually through an objective informatics system or through self-reporting (if objective not available, 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 *Adherence to therapy was assessed at least annually through an objective informatics system or through self-reporting (if objective not available, documented)*: equals No, proceed to check *Documentation of reason(s) for not objectively reporting adherence to evidence-based therapy*.

9. Check *Documentation of reason(s) for not objectively reporting adherence to evidence-based therapy*:

   a. If *Documentation of reason(s) for not objectively reporting adherence to evidence-based 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 reporting adherence to evidence-based therapy* equals No, proceed to check *Adherence to therapy not assessed at least annually through an objective informatics system or through self-reporting (if objective reporting not available), reason not given*.

10. Check *Adherence to therapy not assessed at least annually through an objective informatics system or through self-reporting (if objective reporting not available), reason not given*:

    a. If *Adherence to therapy not assessed at least annually through an objective informatics system or through self-reporting (if objective reporting not available), 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 *Adherence to therapy not assessed at least annually through an objective informatics system or through self-reporting (if objective reporting not available), reason not given* equals No, proceed to check *Data Completeness Not Met*.

11. Check *Data Completeness Not Met*:

       - 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 87.50 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

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.