

## Quality ID #277: Sleep Apnea: Severity Assessment at Initial Diagnosis

### **2024 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 who had an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea.

**INSTRUCTIONS:**  
This measure is to be submitted a minimum of **once per performance period** for patients with a diagnosis of 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, 95, POS 02, POS 10) are allowable.

**Measure Submission Type:**  
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 an initial diagnosis of sleep apnea

***DENOMINATOR NOTE:*** Denominator eligible encounters only include those where the initial diagnosis of sleep apnea is present in the medical documentation or it is the MIPS eligible clinician's first encounter with a patient diagnosed with sleep apnea as represented in the coding below.

**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, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350

**AND**  
**Encounter corresponds to initial diagnosis of sleep apnea or first contact with sleep apnea diagnosed patient**

## **NUMERATOR:**

Patients who had an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea

### **Definitions:**

**Apnea-Hypopnea Index (AHI)** – for polysomnography performed in a sleep lab is defined as (Total Apneas + Hypopneas per hour of sleep); “Apnea-Hypopnea Index (AHI)” for a home sleep study is defined as (Total Apneas + Hypopneas per hour of monitoring).

**Respiratory Disturbance Index (RDI)** – is defined as (Total Apneas + Hypopneas + Respiratory Effort Related Arousals per hour of sleep).

**Respiratory Event Index (REI)** – is a measure of respiratory events per unit of time for a home sleep apnea test.

**NUMERATOR NOTE:** *The quality data codes below should be used for assessment of a MIPS eligible clinician’s actions within 2 months of the initial evaluation for obstructive sleep apnea. If there is not adequate time for measuring an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) (e.g., initial evaluation was conducted in December of the performance period), report the denominator exception.*

### **Numerator Options:**

#### **Performance Met:**

Apnea hypopnea index (AHI), respiratory disturbance index (RDI) or respiratory event index (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea **(G8842)**

**OR**

#### **Denominator Exception:**

Documentation of reason(s) for not measuring an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) within 2 months of initial evaluation for suspected obstructive sleep apnea (e.g., medical, neurological, or psychiatric disease that prohibits successful completion of a sleep study, patients for whom a sleep study would present a bigger risk than benefit or would pose an undue burden, dementia, patients who decline AHI/RDI/REI measurement, patients who had a financial reason for not completing testing, test was ordered but not completed, patients decline because their insurance (payer) does not cover the expense) **(G8843)**

**OR**

#### **Performance Not Met:**

Apnea hypopnea index (AHI), respiratory disturbance index (RDI), or respiratory event index (REI) not documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea, reason not given **(G8844)**

## **RATIONALE:**

For patients with obstructive sleep apnea (OSA), the desired outcome of treatment includes the resolution of the clinical signs and symptoms of OSA and the normalization of the apnea hypopnea index (AHI) and oxyhemoglobin saturation. Physicians treating patients with OSA should calculate the patient’s level of severity, which informs risk for other co-morbid conditions and complications. Numerous Level 1 and Level 2 studies have shown that the risk of cardiovascular complications is established for patients with an AHI over 15 (Kushida et al, 2005). AHI or REI <5/hour = normal (for adults); 5–14.9/hour = mild OSA; 15–29.9/hour = moderate OSA; and ≥30/hour = severe OSA (Goyal et al, 2017).

Patients with a respiratory disturbance index equal to or greater than 15 are considered to have moderate to severe OSA and should be treated with positive airway pressure therapy.

**CLINICAL RECOMMENDATION STATEMENTS:**

Moderate sleep apnea is defined as having an RDI of equal to or greater than 15, but less than 30 episodes per hour of sleep; severe sleep apnea is defined as having an RDI equal to or greater than 30 episodes per hour of sleep. These patients are at higher risk for severe cardiovascular diseases and other co-morbid conditions (Kushida et al, 2006). Polysomnography is indicated for positive airway pressure (PAP) titration in patients with sleep related breathing disorders (Level 1). PSG with CPAP titration is appropriate for patients with any of the following results: a) an RDI of at least 15 per hour, regardless of the patient's symptoms; b) an RDI of at least 5 per hour in a patient with excessive daytime sleepiness. (Kushida et al, 2005) The severity of OSA is determined by an index – Apnea Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI), if PSG is performed, or Respiratory Event Index (REI) if out-of-center-sleep testing (OCST) is performed (Goyal et al, 2017).

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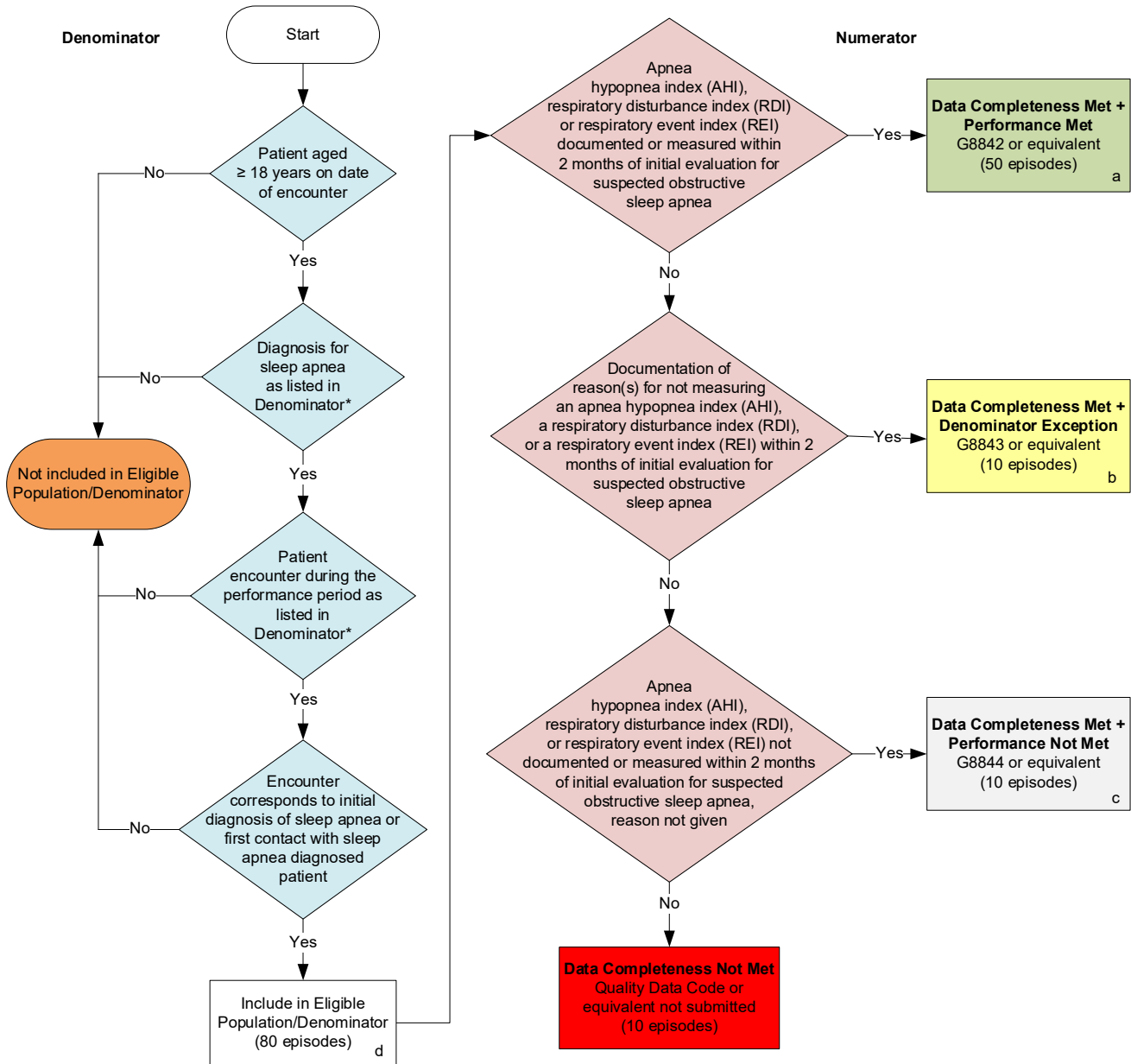
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## 2024 Clinical Quality Measure Flow for Quality ID #277: Sleep Apnea: Severity Assessment at Initial Diagnosis

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



### SAMPLE CALCULATIONS

**Data Completeness=**

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

**Performance Rate=**

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

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

NOTE: Submission Frequency: Episode

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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.

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**2024 Clinical Quality Measure Flow Narrative for Quality ID #277:  
Sleep Apnea: Severity Assessment at Initial Diagnosis**

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

1. Start with Denominator
2. Check *Patient aged greater than or equal to 18 years on date of encounter*.
  - a. If *Patient 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 *Patient 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 the performance period as listed in Denominator\**.
4. Check *Patient encounter during the performance period as listed in Denominator\**:
  - a. If *Patient encounter during the performance period as listed in Denominator\** equals No, do not include in Eligible Population/Denominator. Stop processing.
  - b. If *Patient encounter during the performance period as listed in Denominator\** equals Yes, proceed to check *Encounter corresponds to initial diagnosis of sleep apnea or first contact with sleep apnea diagnosed patient*.
5. Check *Encounter corresponds to initial diagnosis of sleep apnea or first contact with sleep apnea diagnosed patient*:
  - a. If *Encounter corresponds to initial diagnosis of sleep apnea or first contact with sleep apnea diagnosed patient* equals No, do not include in Eligible Population/Denominator. Stop processing.
  - b. If *Encounter corresponds to initial diagnosis of sleep apnea or first contact with sleep apnea diagnosed patient* equals Yes, include in Eligible Population/Denominator.
6. Denominator Population:
  - Denominator Population is all eligible episodes in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 episodes in the Sample Calculation.
7. Start Numerator
8. Check *Apnea hypopnea index (AHI), respiratory disturbance index (RDI) or respiratory event index (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea*:
  - a. If *Apnea hypopnea index (AHI), respiratory disturbance index (RDI) or respiratory event index (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea* 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 episodes in the Sample Calculation.
- b. If *Apnea hypopnea index (AHI), respiratory disturbance index (RDI) or respiratory event index (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea* equals No, proceed to check *Documentation of reason(s) for not measuring an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) within 2 months of initial evaluation for suspected obstructive sleep apnea*.
9. Check *Documentation of reason(s) for not measuring an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) within 2 months of initial evaluation for suspected obstructive sleep apnea*:
    - a. If *Documentation of reason(s) for not measuring an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) within 2 months of initial evaluation for suspected obstructive sleep apnea* 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 episodes in the Sample Calculation.
    - b. If *Documentation of reason(s) for not measuring an apnea hypopnea index (AHI), a respiratory disturbance index (RDI), or a respiratory event index (REI) within 2 months of initial evaluation for suspected obstructive sleep apnea* equals No, proceed to check *Apnea hypopnea index (AHI), respiratory disturbance index (RDI), or respiratory event index (REI) not documented or measured within 2 months of initial evaluation for suspected obstructed sleep apnea, reason not given*.
  10. Check *Apnea hypopnea index (AHI), respiratory disturbance index (RDI), or respiratory event index (REI) not documented or measured within 2 months of initial evaluation for suspected obstructed sleep apnea, reason not given*:
    - a. If *Apnea hypopnea index (AHI), respiratory disturbance index (RDI), or respiratory event index (REI) not documented or measured within 2 months of initial evaluation for suspected obstructed sleep apnea, 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 episodes in the Sample Calculation.
    - b. If *Apnea hypopnea index (AHI), respiratory disturbance index (RDI), or respiratory event index (REI) not documented or measured within 2 months of initial evaluation for suspected obstructed sleep apnea, 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 episodes have been subtracted from the Data Completeness Numerator in the Sample Calculation

**Sample Calculations:**

Data Completeness equals Performance Met (a equals 50 episodes) plus Denominator Exception (b equals 10 episodes) plus Performance Not Met (c equals 10 episodes) divided by Eligible Population/Denominator (d equals 80 episodes). All equals 70 episodes divided by 80 episodes. All equals 87.50 percent.

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

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

NOTE: Submission Frequency: Episode

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.