SLEEP APNEA MEASURES GROUP OVERVIEW

2014 PQRS OPTIONS FOR MEASURES GROUP:

2014 PQRS MEASURES IN SLEEP APNEA MEASURES GROUP:
#276. Sleep Apnea: Assessment of Sleep Symptoms
#277. Sleep Apnea: Severity Assessment at Initial Diagnosis
#278. Sleep Apnea: Positive Airway Pressure Therapy Prescribed
#279. Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy

INSTRUCTIONS FOR REPORTING:

• It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8900: I intend to report the Sleep Apnea Measures Group

• Report the patient sample method:

20 Patient Sample Method: 20 unique patients (a majority of which must be Medicare Part B FFS [fee for service] patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2014 OR July 1 through December 31, 2014).

• Patient sample criteria for the Sleep Apnea Measures Group are patients aged 18 years and older with a specific diagnosis of Sleep Apnea accompanied by a specific patient encounter:

One of the following diagnosis codes indicating Sleep Apnea:
ICD-9-CM [for use 1/1/2014 – 9/30/2014]: 327.23, 780.51, 780.53, 780.57
ICD-10-CM [for use 10/1/2014 – 12/31/2014]: G47.30, G47.33

Accompanied by:

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

• Report a numerator option on all measures within the Sleep Apnea Measures Group for each patient within the eligible professional’s patient sample.

• Instructions for qualifying numerator option reporting for each of the measures within the Sleep Apnea Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

Composite QDC G8759: All quality actions for the applicable measures in the Sleep Apnea Measures Group have been performed for this patient.

• To report satisfactorily the Sleep Apnea Measures Group it requires all measures for each patient within the eligible professional’s patient sample to be reported a minimum of once during the reporting period. In measures group reporting, measures that are based on patient visits need only be reported a minimum of once per reporting period – they do not need to be reported each visit.

• Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one
patient for each measure within the measures group reported by the eligible professional. Performance exclusion quality-data codes are not counted in the performance denominator. If the eligible professional submits all performance exclusion quality-data codes, the performance rate would be 0/0 and would be considered satisfactorily reporting.

- **NOTE**: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures groups option.
Measure #276: Sleep Apnea: Assessment of Sleep Symptoms

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with a diagnosis of obstructive sleep apnea that includes documentation of an assessment of sleep symptoms, including presence or absence of snoring and daytime sleepiness.

NUMERATOR:
Patient visits with an assessment of sleep symptoms documented, including presence or absence of snoring and daytime sleepiness.

**Numerator Options:**
- Sleep apnea symptoms assessed, including presence or absence of snoring and daytime sleepiness (G8839)
- Documentation of reason(s) for not performing an assessment of sleep symptoms (e.g., patient didn’t have initial daytime sleepiness, patient visits between initial testing and initiation of therapy) (G8840)
- Sleep apnea symptoms not assessed, reason not given (G8841)
**Measure #277: Sleep Apnea: Severity Assessment at Initial Diagnosis**

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of obstructive sleep apnea who had an apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) measured at the time of initial diagnosis.

**NUMERATOR:**
Patients who had an apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) measured at the time of initial diagnosis.

**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)**: (Total Apneas + Hypopneas + Respiratory Effort Related Arousals per hour of sleep).

**Numerator Options:**
- Apnea hypopnea index (AHI) or respiratory disturbance index (RDI) measured at the time of initial diagnosis (G8842)
- Documentation of reason(s) for not measuring an apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) at the time of initial diagnosis (e.g., abnormal anatomy, patient declined, financial, insurance coverage) (G8843)
- Apnea hypopnea index (AHI) or respiratory disturbance index (RDI) not measured at the time of initial diagnosis, reason not given (G8844)
Measure #278: Sleep Apnea: Positive Airway Pressure Therapy Prescribed

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of moderate or severe obstructive sleep apnea who were prescribed positive airway pressure therapy

NUMERATOR:
Patients who were prescribed positive airway pressure therapy

Definition:
Moderate or severe sleep apnea - apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) greater than or equal to 15 episodes per hour of sleep

Numerator Options:
Positive airway pressure therapy prescribed (G8845)
AND
Moderate or severe obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of 15 or greater) (G8846)

OR

Mild obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of less than 15) (G8848)

OR

Documentation of reason(s) for not prescribing positive airway pressure therapy (e.g., patient unable to tolerate, alternative therapies used, patient declined, financial, insurance coverage) (G8849)
AND
Moderate or severe obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of 15 or greater) (G8846)

OR

Positive airway pressure therapy not prescribed, reason not given (G8850)
AND
Moderate or severe obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of 15 or greater) (G8846)
Measure #279: Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy

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.

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:**
- Objective measurement of adherence to positive airway pressure therapy, documented (G8851) AND
  - Positive airway pressure therapy was prescribed (G8852)
- OR
  - Positive airway pressure therapy not prescribed (G8853)
  - OR
    - 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) AND
    - Positive airway pressure therapy was prescribed (G8852)
  - OR
    - Objective measurement of adherence to positive airway pressure therapy **not** performed, reason not given (G8855) AND
    - Positive airway pressure therapy was prescribed (G8852)
Measure #276 - Sleep Apnea: Assessment of Sleep Symptoms

RATIONALE:
Snoring occurs in up to 30-50% of adults over the age of 50, and subjective sleepiness occurs in more than 30% of adults (Kushida et al, 2005). Patients diagnosed with obstructive sleep apnea (OSA) should be regularly assessed for changes in symptoms, such as snoring and daytime sleepiness. Sleepiness can be quantified with validated tools such as the Epworth Sleepiness Scale (ESS). Increases in either of these conditions can be signs of poor adherence to treatment, improper mask fit, or indications that additional treatment, such as surgery or medication, is needed. Furthermore, the lack of improvement in sleepiness or snoring may be a reason to discontinue continuous positive airway pressure (CPAP) in follow-up after a therapeutic trial. Alternatively, an increase in CPAP may be implemented to improve snoring or daytime sleepiness. In evaluating daytime sleepiness, it is important to rule out sleep deprivation. Daytime sleepiness, especially with impairment of driving, can be a sign of untreated OSA.

There has been considerable research on the impact of CPAP on subjective and objective daytime sleepiness. The majority of these studies have evaluated subjective sleepiness, principally using the ESS. Of the placebo-controlled trials employing the ESS, most found that CPAP reduced subjective daytime sleepiness. (Gay et al, 2005)

CLINICAL RECOMMENDATION STATEMENTS:
CPAP is indicated for improving self-reported sleepiness in patients with obstructive sleep apnea (Level 1). This recommendation is based on 10 randomized controlled trials in which CPAP reduced sleepiness more than control procedures in patients with obstructive sleep apnea. The Epworth Sleepiness Scale was used in the vast majority of trials to assess subjective sleepiness. (Kushida et al, 2006)

Measure #277 - Sleep Apnea: Severity Assessment at Initial Diagnosis

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). 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)

Measure #278 - Sleep Apnea: Positive Airway Pressure Therapy Prescribed

RATIONALE:
All patients with moderate to severe obstructive sleep apnea (OSA) should have an initial trial of nasal continuous positive air pressure (CPAP); Level 1 evidence also recommends that patients with severe OSA should have an initial trial of nasal CPAP because greater effectiveness has been shown with this intervention than with the use of
other treatments (Kushida et al, 2006). Level 1 studies also show that CPAP eliminates respiratory disturbances, reducing the apnea hypopnea index (AHI). All of the 11 clinical trials that studied this outcome demonstrated that CPAP was superior to placebo, conservative management, and positional therapy. This effect was demonstrated during follow-up polysomnography (Gay et al, 2006). Treatment with CPAP must be based on a prior diagnosis of OSA established using an acceptable method of diagnosis.

**CLINICAL RECOMMENDATION STATEMENTS:**
CPAP is indicated for the treatment of moderate to severe OSA (Level 1). CPAP is recommended for the treatment of mild OSA (Level 2). CPAP is indicated for improving self-reported sleepiness in patients with OSA (Level 1). This recommendation is based on 10 randomized controlled trials in which CPAP reduced sleepiness more than control procedures in patients with OSA. CPAP is recommended for improving quality of life in patients with OSA. (Kushida et al, 2006) (Level 1 and Level 2 studies)

**Measure #279 - Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy**

**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)

**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)