Process Measure #1: Baseline assessment of OSA symptoms

Measure Description	
Description	Proportion of patients aged 18 years and older with a diagnosis of obstructive sleep apnea (OSA) that have documentation of assessment of OSA symptoms with a validated instrument at initial evaluation, including, but not limited to, the presence of snoring and daytime sleepiness

Measure Components	
Denominator Statement	All patients aged 18 years and older with a diagnosis of obstructive sleep apnea
Exceptions	Medical Reasons: None Patient Reasons: Patients who decline or are unable to respond to assessment System Reasons: Patients who had initial evaluation for OSA previously completed by another healthcare provider within the past 6 months
Numerator Statement	Number of patients with documentation of assessment of OSA symptoms with a validated instrument at initial evaluation, including, but not limited to, the presence of snoring and daytime sleepiness

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

criteria.	
	Patient is 18 years of age or older.
	Accompanied by
	One of the following diagnosis codes indicating obstructive sleep apnea:
Denominator	327.23 G47.33 Obstructive sleep apnea (adult) (pediatric)
	780.53 Hypersomnia with sleep apnea, unspecified
(Eligible Population)	
	Accompanied by
	One of the following patient encounter codes:
	99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient)
	99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established
	patient)

	99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
Exceptions	 At least one of the following is documented in the patient chart: Patient declines or is unable to respond to assessment. Patient had initial evaluation for OSA previously completed by another healthcare provider.
Numerator	Chart review indicates: • Patient had assessment of OSA symptoms with a validated instrument at initial evaluation, including, but not limited to, presence of snoring and daytime sleepiness

Process Measure #2: Severity assessment at initial diagnosis

Measure Description	
Description	Proportion of patients aged 18 years and older with a diagnosis of obstructive sleep apnea (OSA) that had an apnea hypopnea index* (AHI), a respiratory disturbance index** (RDI), or respiratory event index *** (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed with obstructive sleep apnea
Exceptions	Medical Reasons: Patients with a medical, neurological, or psychiatric disease that prohibits successful completion of a sleep study; patients in whom a sleep study would present a bigger risk than benefit or pose an undue burden Patient Reasons: Patients who decline AHI/RDI/REI measurement; patients who had a financial reason for not completing testing System Reasons: Test was ordered but not completed; patients who decline because their insurance (payer) does not cover the expense
	Number of patients who had an apnea hypopnea index* (AHI), a respiratory disturbance index** (RDI), or respiratory event index *** (REI) documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea *Apnea-Hypopnea Index (AHI) for polysomnography performed in a sleep lab is defined as (Total Apneas + Hypopneas per hour of sleep)
Numerator Statement	**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 out-of-center sleephome sleep apnea testing. It should be noted that the REI may underestimate the true event index. In light of the limited number of channels utilized for a home sleep apnea testtesting in out-of-center sleep testing, the REI may underestimate the severity of OSA or fail to capture the diagnosis.

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

	Patient is 18 years of age or older.
	Accompanied by
	One of the following diagnosis codes indicating obstructive sleep apnea:
	327.23G47.33 Obstructive sleep apnea (adult) (pediatric)
Denominator	780.53 Hypersomnia with sleep apnea, unspecified
(Eligible Population)	Accompanied by
(Englore 1 optimizer)	One of the following patient encounter codes:
	99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient)
	99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established
	patient)
	99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
Exceptions	 At least one of the following is documented in the patient chart: Patient with a medical, neurological, or psychiatric disease that prohibits successful completion of a sleep study. Patient in whom a sleep study would present a bigger risk than benefit or pose an undue burden. Patient declined AHI/RDI/REI measurement. Test was ordered but not completed. Patient declined because their insurance (payer) does not cover the expense. Patient had financial reason for not completing testing.
Numerator	Chart review indicates: • Patient had an AHI, RDI, or REI documented or measured within 2 months of initial evaluation for suspected obstructive sleep apnea.

Process Measure #3: Evidence-based therapy prescribed

Measure Description	
Description	Proportion of patients aged 18 years and older diagnosed with <u>moderate to severe</u> obstructive sleep apnea (OSA) or symptomatic mild obstructive sleep apnea that were prescribed an evidence-based therapy after initial diagnosis

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed with obstructive sleep apnea
Exceptions	Medical Reasons: None Patient Reasons: Patients who do not wish to be prescribed therapy; Patients who do not return for follow-up after initial diagnosis System Reasons: Patient's insurance (payer) does not cover the expense of therapy
Numerator Statement	Number of patients who were prescribed evidence-based therapies (such as positive airway pressure, oral appliances, positional therapies, upper airway surgeries) after initial diagnosis Definition: Evidence-based therapies include positive airway pressure, oral appliances, positional therapies, and upper airway surgeries including hypoglossal nerve stimulation *Note: Weight loss is considered adjunctive therapy.

Technical Specifications: Administrative/Claims Data	
Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.	
Denominator	Patient is 18 years of age or older.
	Accompanied by
(Eligible Population)	One of the following diagnosis codes indicating obstructive sleep apnea:
	327.23 G47.33 Obstructive sleep apnea (adult) (pediatric)
	780.53 Hypersomnia with sleep apnea, unspecified

	Accompanied by One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient) 99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established patient) 99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
Exceptions	 At least one of the following is documented in the patient chart: Patient declines prescription of evidence-based therapy. Patient does not return for follow-up care after initial diagnosis. Patient's insurance (payer) does not cover the expense of therapy.
Numerator	 Chart review indicates both of the following: Patient is prescribed treatment after initial diagnosis of OSA. Treatment is evidence-based, including: positive airway pressure, oral appliances, positional therapies and upper airway surgeries, including hypoglossal nerve stimulation. *Note: Weight loss is considered adjunctive therapy.

Process Measure #4: Assessment of adherence to OSA therapy

Measure Description	
Description	Proportion of patients aged 18 years and older with obstructive sleep apnea (OSA) that were prescribed an evidence-based therapy who had documentation that adherence to therapy was assessed at least annually

Measure Components	
Denominator Statement	All patients aged 18 years and older with obstructive sleep apnea who were prescribed an evidence-based therapy (including positive airway pressure, oral appliances, positional therapies, upper airway surgeries) Definition: Evidence-based therapy includes positive airway pressure, oral appliances, positional therapies, upper airway surgeries, hypoglossal nerve stimulation, or other device with monitoring capabilities
Exceptions	Medical reasons: Patients diagnosed with a terminal or advanced disease with an expected-lifespan of less than 6 months; patients who underwent bariatric or upper airway surgery surgical treatment for OSA (i.e. bariatric, upper airway) and subsequently do not need further on-going assessment of adherence to therapy Patient reasons: Patients who decline therapy; Patients who do not return for follow-up care; patients unable to access/afford therapy; Patients who decline or are unable to respond to assessment System reasons: Patient's insurance will not cover therapyPatients who decline because their insurance (payer) does not cover the expense
Numerator Statement	Number of patients who had documentation that adherence to therapy* was assessed at least annually using an objective informatics system preferably, if available. Alternatively, subjective adherence may be reported, if objective reporting is not available *Note: There is no specified threshold for adherence (i.e. 70% of the night for 4 nights or more).

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all

	e for whom data are available and who meet the eligible population/denominator
Denominator (Eligible Population)	Patient is 18 years of age or older. Accompanied by One of the following diagnosis codes indicating obstructive sleep apnea: 327.23G47.33 Obstructive sleep apnea (adult) (pediatric) 780.53 Hypersomnia with sleep apnea, unspecified Accompanied by One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient) 99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established
	patient) 99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only) Accompanied by Documentation that the patient was prescribed (order on file) evidenced-based treatment for OSA including: positive airway pressure, oral appliances, positional therapies (noted in patient chart), and upper airway surgeries.
Exceptions	At least one of the following is documented in the patient chart: Patient declines therapy. Patient's insurance will not cover therapy. Patient declines because their insurance (payer) does not cover the expense. Patient unable to access/afford therapy. Patient declines or is unable to respond to assessment. Patient does not return for follow-up care. Patient underwent bariatric or upper airway surgerysurgical treatment for OSA (i.e. bariatric, upper airway) and subsequently does not need further ongoing therapy. Patient diagnosed with a terminal or advanced disease with an expected lifespan of less than 6 months.
Numerator	 Chart review indicates: Patient's adherence to therapy is assessed using an objective informatics system When objective data is not available, subjective adherence reporting is documented Patient's adherence to therapy is assessed at least annually.

Process Measure #5: Assessment of sleepiness

Measure Description	
Description	Proportion of patients aged 18 years and older diagnosed and treated for obstructive sleep apnea (OSA) that had sleepiness assessed annually <u>using a validated instrument</u>

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed and treated with an evidence-based therapy for obstructive sleep apnea Definition: Evidence-based therapy includes (such as positive airway pressure, oral appliances, positional therapies and upper airway surgeries, including hypoglossal nerve stimulation)
Exceptions	Medical Reasons: Patients diagnosed with a terminal or advanced disease with an expected lifespan of less than 6 months; patients who underwent surgical treatment for OSA (i.e. bariatric, upper airway) and subsequently no longer meet the diagnostic eriteria for OSA Patient Reasons: Patients who do not return for follow-up at least annually; Patients who decline or are unable to respond to assessment; Patients who decline therapy; patients who are unable to access or afford therapy System Reasons: Patients who decline because their insurance (payer) does not cover the expense
Numerator Statement	Number of patients who had their sleepiness assessed annually <u>using a validated</u> instrument

Technical Specifications: Administrative/Claims Data	
Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.	
Denominator	Patient is 18 years of age or older.
(Eligible Population)	Accompanied by One of the following diagnosis codes indicating obstructive sleep apnea: 327.23 G47.33 Obstructive sleep apnea (adult) (pediatric) 780.53 Hypersomnia with sleep apnea, unspecified

		Accompanied by One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient) 99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established patient) 99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only) Accompanied by
		Documentation that the patient was prescribed an evidence-based OSA treatment (such as positive airway pressure, oral appliances, positional therapies and upper airway surgeries, including hypoglossal nerve stimulation).
	Exceptions	 At least one of the following is documented in the patient chart: Patient does not return for follow-up at least annually. Patient declines or is unable to respond to assessment of sleepiness. Patients diagnosed with a terminal or advanced disease with an expected lifespan of less than 6 months. Patients who underwent surgical treatment for OSA (i.e. bariatric, upper airway) and subsequently no longer meet the diagnostic criteria for OSA Patient declines therapy. Patient unable to access/afford therapy or declines because their insurance (payer) does not cover the expense.
	Numerator	 Chart review indicates: Patient's sleepiness is assessed <u>using a validated instrument</u> Sleepiness is assessed at least annually

Process Measure #6: Assessment of motor vehicle erashes accidents or near-miss erashes accidents

Measure Description	
Description	Proportion of patients aged 18 years and older diagnosed with obstructive sleep apnea (OSA) that were questioned about motor vehicle <u>crashes_accidents</u> (or nearmiss <u>crashes_accidents</u>) associated with drowsiness/excessive sleepiness at initial evaluation

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed with obstructive sleep apnea
Exceptions	Medical Reasons: None Patient Reasons: Patients who do not drive; Patients who decline to respond System Reasons: None
Numerator Statement	Number of patients who have documentation that questions about motor vehicle erashes accidents (or near-miss erashes) accidents) associated with drowsiness/excessive sleepiness were asked at initial evaluation

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria. Patient is 18 years of age or older.

Denominator

(Eligible Population)

Accompanied by

One of the following diagnosis codes indicating obstructive sleep apnea: 327.23 G47.33 Obstructive sleep apnea (adult) (pediatric) 780.53 Hypersomnia with sleep apnea, unspecified

Accompanied by

One of the following patient encounter codes:

99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient) 99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)

Exceptions	At least one of the following is documented in the patient chart: • Patient does not drive. • Patient declines to respond.
Numerator	Chart review indicates:

Process Measure #7: Assessment of weight

Measure Description	
Description	Proportion of patients aged 18 years and older diagnosed with obstructive sleep apnea (OSA) whose weight is documented at every visit(OSA) whose weight is measured at every office visit

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed with obstructive sleep apnea
Exceptions	Medical Reasons: Patients unable to get on scale (e.g. wheelchair-bound); patients who are pregnant Patient Reasons: Patients who decline weight measurement
Exceptions	System Reasons: Patients unable to be weighed because scale not <u>available to or not</u> able to accommodate their weight; patients who were seen and weighed within the past month
Numerator Statement	Number of patients whose weight is measured at every office visit

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.	
	Patient is 18 years of age or older.
	Accompanied by
	One of the following diagnosis codes indicating obstructive sleep apnea:
Denominator	327.23 G47.33 Obstructive sleep apnea (adult) (pediatric)
	780.53 Hypersomnia with sleep apnea, unspecified
(Eligible Population)	
	Accompanied by
	One of the following patient encounter codes:
	99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient)
	99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established
	patient)

	99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
Exceptions	At least one of the following is documented in the patient chart: • Patient unable to get on scale (e.g. wheelchair bound). • Patient declines weight measurement. • Scale cannot accommodate patient's weight. • Patient's weight was measured and documented in the last month. • Patient is pregnant.
Numerator	Chart review indicates: • Patient's weight is measured documented • Weight measurement is taken at every visit

Process Measure #8: Weight management discussion

Measure Description	
Description	Proportion of overweight or obese (BMI \geq 25 kg/m²) patients aged 18 years and older diagnosed with obstructive sleep apnea (OSA) that had a discussion with, or were provided education by, the healthcare provider at least annually, with the healthcare provider on the patient's weight status or who were referred to a specialist for their weight management

Measure Components	
Denominator Statement	All overweight and obese (BMI \geq 25 kg/m ²) patients aged 18 years and older diagnosed with obstructive sleep apnea
Exceptions	Medical Reasons: Patients diagnosed with a terminal or advanced disease with an expected lifespan of less than 6 months; patient is pregnant Patient Reasons: Patients who report they are currently in a weight management program System Reasons: Weight management has been discussed by another provider within 6 months. None
Numerator Statement	Number of patients with documentation of a discussion with or educationwere provided education the healthcare provider, at least annually with the healthcare provider on the patient's weight status, or who were referred to a specialist for their-weight management Definition: Weight management discussion includes discussion of how being overweight or obese worsens sleep apnea and increases cardiovascular risk

Technical Specifications: Administrative/Claims Data	
Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.	
Denominator	
	Patient is 18 years of age or older.

(Eligible Population)	
	Accompanied by
	One of the following diagnosis codes indicating obstructive sleep apnea:
	327.23 G47.33 Obstructive sleep apnea (adult) (pediatric)
	780.53 Hypersomnia with sleep apnea, unspecified
	Accompanied by
	One of the following diagnosis codes indicating overweight or obese:
	278.00E66.9 Obesity unspecified
	<u>278.01</u> <u>E66.01</u> Morbid obesity
	278.02 <u>E66.3</u> Overweight
	(Chart review indicates BMI $\geq 25 \text{ kg/m}^2$)
	Accompanied by
	One of the following patient encounter codes:
	99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient)
	99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established
	patient)
	99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
Exceptions	 At least one of the following is documented in the patient chart: Patient diagnosed with a terminal or advanced disease with an expected lifespan of less than 6 months. Patient who reports they are currently in a weight management program. Patient is pregnant.
Numerator	Chart review indicates • Provider discusses weight status with patient or refers patient to specialist for weight management • Discussion or referral provided at least annually

Measure #9: Assessment of blood pressure RECOMMENDED FOR RETIREMENT

Measure Description	
Description	Proportion of patients aged 18 years and older diagnosed with obstructive sleep apnea (OSA) whose blood pressure is measured at every office visit

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed with obstructive sleep apnea
Exceptions	Medical Reasons: None Patient Reasons: Patient has documented blood pressure measurement within the past 24 hours; Patient declines blood pressure measurement System Reasons: Blood pressure cuff is not available, not functional, or is the wrong size.
Numerator Statement	Number of patients whose blood pressure is measured at every office visit

Technical Specifications: Administrative/Claims Data

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator-criteria.

Clitcha.	
	Patient is 18 years of age or older.
	Accompanied by
	One of the following diagnosis codes indicating obstructive sleep apnea:
	327.23 Obstructive sleep apnea (adult) (pediatric)
Denominator	780.53 Hypersomnia with sleep apnea, unspecified
(Eligible Population)	Accompanied by
	One of the following patient encounter codes:
	99201, 99202, 99203, 99204, 99205 (office/other outpatient services new patient)
	99212, 99213, 99214, 99215 (office/other outpatient services established patient)
	99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
Exceptions	
	At least one of the following is documented in the patient chart:

	Patient declines blood pressure measurement
	 Patient's blood pressure has been measured and documented in the past 24-
	hours
	 Documentation of blood pressure cuff not being available, not functional, or
	is the wrong size.
Numerator	Chart review indicates: - Patient's blood pressure is measured and documented - Blood pressure is measured at every visit

Process Measure #10: Elevated blood pressure discussion

Measure Description	
Description	Proportion of patients aged 18 years and older diagnosed with obstructive sleep apnea (OSA) with an elevated blood pressure reading of 140/90 mm Hg or higher (elevated according to the most recent Joint National Committee guideline for high blood pressure) noted at the visit that had ve documentation of a discussion with the healthcare provider with the healthcare provider of this elevated blood pressure

Measure Components	
Denominator Statement	All patients aged 18 years and older diagnosed with obstructive sleep apnea with an elevated blood pressure reading of 140/90 (elevated according to the most recent Joint National Committee guideline for high blood pressure) noted at the visit
Exceptions	Medical Reasons: None Patient Reasons: None System Reasons: Patients who had discussion with another healthcare provider in the last 24 hours about their elevated blood pressure
Numerator Statement	Number of patients with documentation of a discussion that sleep apnea worsens hypertension and both increase cardiovascular risk with the healthcare provider about their elevated blood pressure noted at the visit Definition: Elevated blood pressure includes discussion of how sleep apnea worsens hypertension, and both increase cardiovascular risk

Technical Specifications: Administrative/Claims Data	
Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.	
Denominator	Patient is 18 years of age or older.
(Eligible Population)	Accompanied by One of the following diagnosis codes indicating obstructive sleep apnea: 327.23G47.33 Obstructive sleep apnea (adult) (pediatric)

	780.53 Hypersomnia with sleep apnea, unspecified
	Accompanied by
	One of the following diagnosis codes indicating hypertension/elevated blood
	pressure:
	I10 Essential (primary) hypertension
	401.0 Malignant
	401.1 Benign
	I15 Secondary hypertension
	I15.8 Other secondary hypertension
	I27.20 Pulmonary hypertension, unspecified
	401.9 Unspecified
	796.2R03.0 Elevated blood pressure reading, without diagnosis of hypertension
	Accompanied by
	Chart review indicates elevated blood pressure according to the most recent Joint
	National Committee guideline for high blood pressure of 140/90
	Accompanied by
	One of the following patient encounter codes:
	99201, 99202, 99203, 99204, 99205 (office/other outpatient services – new patient)
	99211, 99212, 99213, 99214, 99215 (office/other outpatient services – established
	patient)
	99241, 99242, 99243, 99244, 99245 (office consultations, non-Medicare only)
	At least one of the following is documented in the patient chart:
Exceptions	
	• Patient had discussion with another healthcare provider in the last 24 hours about their elevated blood pressure.
	•
Numerator	Chart review indicates:
	Provider discusses elevated blood pressure with patient