

SLEEP APNEA PATIENT IDENTIFICATION FORM PACKET



Overview

Primary care providers frequently decide whether or not patients are referred for Obstructive Sleep Apnea (OSA) evaluations. This decision is made quickly and precisely during patient visits. Accurate screening for OSA is necessary to properly identify at-risk patients. The STOP-BANG questionnaire^I, Epworth Sleepiness Scale^{II}, Mallampati Classification^{III} and associated at-risk comorbidities^{IV} are tools that are commonly used to identify these patients.

The first three questions of the enclosed screener are related to the patient's treatment attempts for OSA. These questions should help in describing current treatment options, like SomnoDent, and are often important qualifying criteria for associated medical insurance claims.

The STOP-BANG questionnaire can be used initially to identify at risk patients. This screening tool has high sensitivity, helping primary care physicians avoid missing cases that may lead to adverse health consequences and increased costs^{IV}. Should the STOP-BANG questionnaire indicate a level of risk, then the remaining forms should be completed to establish whether or not the patient should be referred for OSA testing.

The STOP-BANG questionnaire is a validated^V tool that consists of eight questions evaluating a patient's snoring, tiredness, observed apnea, blood pressure, body mass index, age, neck circumference and gender. Patients answering "yes" to 3 or more questions are identified as high risk.

The Epworth Sleepiness Scale is another validated 8-item questionnaire that measures subjective sleepiness^{II}. Patients scoring 11 or more are identified as high risk. This questionnaire is often required by insurance companies as part of the patient's claim.

The Mallampati Classification is a visual screening tool that has been used in the past as a screener for anesthesiology patients to predict ease of intubation. It is now also used to determine a patient's level of risk for OSA by visually identifying them as class 1,2,3, or 4. Patients with class 3 or 4 are considered as high risk.

Also enclosed is a list of comorbidities. Patients answering "yes" to any of these history questions are identified as high-risk.

Once completed by the patient, these forms should be copied and sent along with the referral, if indicated, or the medical insurance claim should the patient proceed with SomnoDent treatment.

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- I Citation for CPAP compliance as 5 nights a week for 4 or more hours each (4 or more hours a night for 70% of nights): Local Coverage Article for FAQs – Positive Airway Pressure Devices (A48132). www.cms.gov
 - II J Clin Sleep Med 2011;7(5):467-472
 - III Johns MW. A new method for measuring daytime sleepiness: Epworth sleepiness scale. Sleep 1991; 14:540-5
 - IV Nuckton TJ, Glissen DV, Browner WS, Clamen DM (Jul 1, 2006). "Physical examination: Mallampati score as an independent predictor of obstructive sleep apnea". Sleep 29 (7): 903-8
 - V <https://www.ncbi.nlm.nih.gov/pubmed/26658438t>

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Instruction for use

This section describes how each form should be used and by whom:



RISK ASSESSMENT

To be completed by the dentist upon receipt of the completed Sleep Questionnaire (page 4), Physical evaluation (page 5), and Comorbidity Questionnaire (page 6) by the patient.



SLEEP QUESTIONNAIRE

These questions should be completed by the patient during intake and/or updating of their medical history.



PHYSICAL EVALUATION

To be completed by the dentist or appropriately trained dental auxiliary during an oral health examination of the patient.



COMORBIDITIES QUESTIONNAIRE

To be completed by the dental team in consultation with the patient.

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Risk Assessment

Patient Name: _____

Date of Birth: _____

If the patient indicates a high risk in any section, it is recommended that the patient be referred to a sleep physician to help determine whether he/she might have a sleep breathing disorder.

If the patient is assessed as low risk in all sections, although their risk for OSA is low, he/she should be referred to a sleep specialist if they have any further concerns about their sleep or alertness.

The first three questions of the Sleep Questionnaire ask the patient about previous or current attempts to treat OSA.

CURRENT THERAPIES		
Intolerant/Non-Adherent to CPAP	YES	NO
Surgery for OSA	YES	NO

If the patient answers Yes to the above questions then he/she is a candidate for SomnoDent® therapy.

Review results from questions (d-g) of the patients Sleep Questionnaire and physical evaluation (p-s).
(Please circle your answers. Score: Yes-1, No-0)

STOP-BANG SLEEP OBSERVATIONS SCORE: YES-1, NO-0			
d.	Does the patient snore loudly?	YES	NO
e.	Does the patient often feel tired or fatigued after sleep?	YES	NO
f.	Has anyone noticed the patient quit breathing during sleep?	YES	NO
STOP-BANG PHYSICAL EVALUATION			
g.	Is the patient being treated for high blood pressure?	YES	NO
	Is the patient over 50 years old?	YES	NO
q.	Is the patient's BMI over 35? (BMI= Weight (lb)/ Height (in) x Height(in) x 703) Calculated BMI: _____	YES	NO
r.	Is the patient's neck size over 17 inches for male or 16 inches for female?	YES	NO
s.	Is the patient male?	YES	NO
Total Score			

High risk of OSA: 3 or higher **Patient high risk (yes/no)**

Add up the results from question (h-o) of the patient's Sleep Questionnaire.

EPWORTH SLEEPINESS SCALE	
Total Score	<input type="text"/>
High risk of OSA: 11 or more	Patient high risk (yes/no) <input type="checkbox"/>

Review the results of the patient's Physical Evaluation.

MALLAMPATI CLASSIFICATION	Risk
Class 1 or Class 2	Low <input type="checkbox"/>
Class 3 or Class 4	High <input type="checkbox"/>
Patient high risk (yes/no) <input type="checkbox"/>	

Review the results of the patient's Comorbidities Questionnaire.

COMORBIDITY		
Were Comorbidity conditions identified?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
High risk of OSA: YES	Patient high risk (yes/no) <input type="checkbox"/>	

Date of Assessment: _____

Patient's overall Risk Assessment: HIGH LOW

Refer for further assessment? YES NO

Sleep clinic/referral MD Name: _____

D.D.S./D.M.D. Signature: _____

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Sleep Questionnaire

Patient Name: _____

Date of Birth: _____

CURRENT THERAPIES

- a. Have you attempted CPAP therapy? YES NO
 – If yes, are you able to use it at least 5 nights a week (4 or more hours per night)? YES NO
- b. Have you undergone any surgical attempts to correct your sleep apnea? YES NO
- c. Have you tried any of the following conservative methods of improving your sleep breathing? (Please check)
- Weight loss
 - Positional therapy: Avoiding sleeping on your back during sleep (the supine position)
 - Abstaining from the use of alcohol and/or sedatives before bedtime

SLEEP OBSERVATIONS II

(Also refer to physical evaluation form)

- d. Do you snore loudly? YES NO
- e. Do you often feel tired or fatigued after sleep? YES NO
- f. Has anyone noticed that you quite breathing during sleep? YES NO
- g. Do you take medication for high blood pressure? YES NO

EPWORTH SLEEP SCALE III

How likely are you to doze off or fall asleep in the following situations, in contrast to feeling just tired? This refers to your usual way of life in recent times. Even if you have not done some of these thing recently, try to work out how they would have affected you. Use the following scale to choose the most appropriate number for each situation. (Please circle the number to answer)

	<i>Would never doze</i>	<i>Slight chance of dozing</i>	<i>Moderate chance of dozing</i>	<i>High chance of dozing</i>
h. Sitting and reading	0	1	2	3
i. Watching TV	0	1	2	3
j. Sitting inactive in a public place (e.g., a theater or a meeting)	0	1	2	3
k. As a passenger in a car for an hour without a break	0	1	2	3
l. Lying down to rest in the afternoon when circumstances permit	0	1	2	3
m. Sitting and talking to someone	0	1	2	3
n. Sitting quietly after lunch without alcohol	0	1	2	3
o. In a car while stopped for a few minutes in traffic	0	1	2	3

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Physical Evaluation

Patient Name: _____

Date of Birth: _____

STOP-BANG	
p.	Patient's blood pressure: _____ / _____
q.	Patient's height: _____ (ft) _____ (in.)
r.	Patient's weight: _____ (lbs)
s.	Patient's neck size: _____ (in.)

BMI	WEIGHT STATUS
Below 18.5	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30.0 and above	Obese

Body Mass Index Calculation

$$\frac{\text{Weight (lbs.)}}{\text{Height}^2 \text{ (Inches)}} \times 703$$

Example:

Weight = 160 (lbs.) Calculation: $160/4,761 = 0.0337 \times 703 = \text{BMI } 23.69$
 Height 5'(ft) 9"(in.) = 69" (squared: $69 \times 69 = 4,761$)

Mallampati Classification



CLASS 1

Visualization of the soft palate, fauces, uvula, anterior and posterior pillars



CLASS 2

Visualization of the soft palate, fauces and uvula.



CLASS 3

Visualization of the soft palate and the base of the uvula.



CLASS 4

Soft palate is not visible at all.

Mallampati classification is used to predict the ease of intubation. It is determined by looking at the anatomy of the oral cavity; specifically, it is based on the visibility of the base of uvula, faucial pillars (the arches in front of and behind the tonsils) and soft palate. Scoring may be done with or without phonation. A high Mallampati score (class 3 or 4) is associated with more difficult intubation as well as a higher incidence of sleep apnea.^{IV}

IV Nuckton TJ, Glissen DV, Browner WS, Clamen DM (Jul 1, 2006). "Physical examination: Mallampati score as an independent predictor of obstructive sleep apnea". Sleep 29 (7): 903-8

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Comorbidities Questionnaire+

Patient Name: _____

Date of Birth: _____

Please check all that apply:

DESCRIPTION	CHECK IF PATIENT HAS HISTORY/DIAGNOSIS*
Hypertension (High Blood Pressure)	
Stroke	
Cardiovascular Disease (CV)	
COPD or other Pulmonary Disease	
Atrial Firillation (Irregular heartbeat)	
Depression	
Narcolepsy	
Myocardial Infartion (Heart attack)	
Chronic Pulmonary heart disease	
Lung Disease	
Sleep Disorder (<i>please circle if applies</i>): Insomnia Sleep Apnea	
Obesity	
Metabolic Syndrome or Type II Diabetes	

Please list any additional concerns: _____

* Medical diagnosis from a board certified physician should be included with all (OAT) medical health insurance claims.

+ Comorbidities Associated with Obstructive Sleep Apnea: a Retrospective Study. US National Library of Medicine National Institutes of Health. 2016 Apr. www.ncbi.nlm.nih.gov/pmc/articles/PMC4835326/