



# *Shumate Brokerage Corp.*

member American Brokerage Centers, LLC  
presents

## Ask the Underwriter!

### SLEEP APNEA

#### Introduction:

Sleep Apnea is a potentially serious sleep disorder whereby breathing repeatedly stops and starts during sleep. Apnea is Greek for without breath. The treatments for sleep apnea may involve using a device to keep the airway open and or undergoing surgery to remove tissue from nose, mouth or throat.

Sleep apnea occurs in two main types:

- 1) **Obstructive Sleep Apnea** is much the more common form that occurs when throat muscles relax. Obstructive Sleep Apnea occurs more often in older adults and is twice as common in men as in women.
- 2) **Central Sleep Apnea** occurs when the brain does not send the proper signals to the muscles that control breathing.

#### Signs and Symptoms:

The most common signs and symptoms of obstructive and central sleep apnea include:

- 1) excessive daytime sleepiness (hypersomnia),
- 2) loud snoring
- 3) episodes of breathing cessation during sleep
- 4) abrupt awakenings accompanied by shortness of breath
- 5) awakening with dry mouth or sore throat
- 6) difficulty staying asleep.

Disruptive snoring is a more prominent characteristic of obstructive sleep apnea and awakening with shortness of breath may be more common with central sleep apnea.

#### Causes:

Obstructive sleep apnea occurs when the muscles in the back of the throat relax. These muscles support the soft palate the uvula tonsils and tongue. When the muscles relax the

airway narrows or closes as the patient breathes in and breathing momentarily cuts off. This can lower the amount of oxygen in the blood. The brain senses this and awakens the patient so that they can open the airway. These awakenings are usually so brief that the patient does not remember them. Some patients make snorting, choking, or gasping

sounds. This pattern can repeat itself 20 to 30 times per night. These disruptions impair the ability to reach the more restful phases of sleep, which makes people sleepier during waking hours. Many people with this type of sleep apnea are unaware that they have this and think that they sleep well at night.

Central sleep apnea occurs when the brain fails to transmit signals to the breathing muscles. The patient may awaken with shortness of breath or headaches. Most common cause of central sleep apnea is heart disease.

### **Risk Factors:**

While sleep apnea may occur at any age or in either sex there are certain risk factors that put the patient at increased risk. With obstructive sleep apnea the first of these is excess weight and neck circumference. Thick necks may narrow the airway. A neck circumference of greater than 17 inches is associated with an increased risk of obstructive sleep apnea. Hypertension having a family history of sleep apnea and being male are additional risk factors. Sleep apnea occurs two to three times more often in adults over age 65. Use of alcohol sedatives or tranquilizers can relax the muscles of the throat. Smokers are much more likely to have obstructive sleep apnea than are non-smokers. With central sleep apnea risk factors are being male, heart disorders, a history of stroke, brain tumors, and high altitude.

### **Screening and Diagnosis:**

The sleep study, (Nocturnal Polysomnography) is a test that measures heart, lung, brain activity, breathing patterns, arm and leg movements, and blood oxygen levels while the patient sleeps. This test enables the doctor to arrive at an accurate diagnosis of sleep apnea vs. other disorders such as narcolepsy or insomnia. The Oximetry Study is a screening method that involves using a small machine that monitors and records the oxygen level while the patient is asleep. This test does not detect all cases of sleep apnea. Carriers do not accept it as a sleep study. Carriers want to see the results of a Polysomnography.

### **Complications:**

Sleep Apnea is considered a serious disorder that can lead to cardiovascular problems such as hypertension and if there is underlying heart disease the repeated multiple episodes of low blood oxygen can lead to sudden death from a cardiac event. Daytime fatigue that results from the repeated awakenings associated with sleep apnea can cause

patients to have drowsiness, fatigue, irritability, difficulty concentrating, falling asleep at work or while driving.

### **Treatments:**

With very mild cases of sleep apnea the doctor might recommend life style changes such as losing weight or stopping smoking. There are certain devices that can help to open a blocked airway. In other cases surgery may be needed or a combination of surgery and CPAP (Continuous Positive Airway Pressure). CPAP is a machine that delivers air pressure through a mask placed over the nose while the patient sleeps. The air pressure is somewhat greater than the surrounding air, just enough to keep the upper airway passages open. The chief problem with this method of treatment is that some find it cumbersome or uncomfortable. Compliance can be a problem. Adjustments to the mask can be made. Oral appliances are another method. These are designed to keep the throat open. While CPAP is more effective these appliances may be easier for some patients to use.

The goal of surgery for sleep apnea is to remove excess tissue from the nose or throat that may be vibrating and causing the snoring or may be blocking the upper air passages causing sleep apnea. In addition if the patient has a deviated septum nasal surgery may help improve sleep apnea.

For those with Central Sleep Apnea treatments are a bit more limited. They may include, in addition to CPAP, treatment for associated medical conditions and supplemental oxygen.

### **Underwriting Sleep Apnea:**

The carriers that ABC Group uses for the most part will follow the Swiss Re Manual. The good news there is that for those cases where the Sleep Apnea is well controlled by CPAP they will be Std.

For the purposes of risk assessment carriers use what is called the **Apnea Index (AI)** and or the **Respiratory Disturbance Index (RDI)** and treatment compliance to determine rating. These indexes are found as part of the results of a Sleep Study. One problem that is encountered quite often is that follow up sleep studies after therapy has commenced are not available or not done. Some carriers generally go on compliance factors then to evaluate. If the applicant is using the CPAP regularly then it is more likely to be Std. Some underwriting guides say that with Sleep Apnea where there is no follow up Sleep Studies that it should be rated as moderate OSA under no treatment and may be rated Table 2 or 3. If the applicant is using CPAP regularly then a much better case for Std can be made if a follow up sleep study has not been done. Swiss Re says that Moderate Sleep Apnea is where the AI is >20. If the applicant was diagnosed with severe sleep apnea then Swiss Re will rate these people Table 3 to 4 within six months of the

commencement of treatment. This will go down to Std after 1 to 2 years. The apnea index pre and post treatment is what Swiss Re uses to differentiate mild moderate and severe OSA.

Swiss Re is a bit tougher on Central Sleep Apnea. If the cause of Central Sleep Apnea is unknown then it is a Refer to the Medical Director. Otherwise if the Cause is know rate for the cause. If Oxygen is used with the CPAP machine it will be a decline.

Many of these cases of OSA will be Std with carriers if the applicants have been well followed and are compliant with treatment.

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