

# Sleep Apnea HRA v3

**Client Review Document** 

### **Overview**

The Sleep Apnea HRA is an online application intended for adults between the ages of 20 and 89. Based on a scientifically validated questionnaire,<sup>1</sup> it's a preliminary screening assessment for undiagnosed obstructive sleep apnea (OSA). The aim is to identify people who might benefit from a complete sleep apnea evaluation in a clinical setting.

# **Main Scientific Basis**

This assessment uses a measure called the STOP-Bang score<sup>1</sup> to identify people at high risk for OSA.

# **Product Description**

The following 8 questions are used to calculate the STOP-Bang score:

- 1. Do you often feel tired, fatigued, or sleepy during daytime? (+1 point for "Yes")
- 2. Do you snore loudly enough to be heard through closed doors? (+1 point for "Yes")
- 3. Has anyone observed you stop breathing during your sleep? (+1 point for "Yes")
- 4. Do you have or are you being treated for high blood pressure? (+1 point for "Yes")
- 5. Does your neck measure 16 inches or more around? (+1 point for "Yes")
- 6. Age (+1 point for over age 50)
- 7. Sex (+1 point for male)
- 8. Height & weight (+1 point for body mass index [BMI] over 35)

# **Primary Results**

The primary result shown in the client portal for the Sleep Apnea HRA is a consumer's risk of having undiagnosed sleep apnea. The results are organized into the following categories:

#### **High Risk**

People in this category have a STOP-Bang score of 3 or higher. This indicates that an evaluation for sleep apnea is warranted.

#### **Unknown Risk**

Consumers in this category have a STOP-Bang score of 2 -AND- *do not* know their neck measurement (i.e. They answered "I don't know" to question 5 above). These people are urged to measure their neck circumference and have a clinical evaluation if the measurement is 16 inches or more.



#### Low Risk

Individuals in this category have a STOP-Bang score of 0 or 1 -OR- a STOP-Bang score of 2 and they *do* know their neck measurement. These people are told talk to a health care professional about persistent sleep problems.

# **Weight-Loss Recommendation**

Weight is an independent risk factor for many serious health conditions, including OSA. Although obesity is one of the strongest risk factors for OSA, people with a BMI of 25.0 to 35.0 (i.e. overweight & obesity weight ranges) are assigned +0 points towards their STOP-Bang score.<sup>1</sup>

In order to educate consumers about the importance of maintaining a healthy weight, the Sleep Apnea HRA also gives people their BMI-based "healthy weight range" and urges anyone with a BMI of 25.0 or higher to have a health care professional determine their ideal weight.<sup>2</sup>

# References

- 1. Chung F, Subramanyam R, Liao P, Sasaki E, Shapiro C, Sun Y. High STOP-Bang score indicates a high probability of obstructive sleep apnoea. *Br. J. Anaesth.* 2012;108(5): 768–75. doi: https://doi.org/10.1093/bja/aes0222.
- Jensen MD, Ryan DH, Apovian CM, Ard JD, Comuzzie AG, Donato KA, et. al. 2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and The Obesity Society. *Circulation*. 2013;00.000-000. doi: http://dx.doi.org/10.1161/01.cir.0000437739.71477.ee