Obstructive Sleep Apnea (OSA) Treatment Summary Sheet.

Robert G Hooper, M.D., March 2023

The purpose of this sheet is to briefly summarize treatments available for obstructive sleep apnea. It is not designed to be comprehensive or for any specific individual.

Goals of therapy:

- 1. Improved sleep related symptoms.
- 2. Reduce the number of apneic events per hour as much as possible (best <5)_
- 3. Maintain oxygen levels at a safe level.

The respiratory breathing events are recorded on your diagnostic tests. It is the number of complete blockages and almost complete blockages per hour. It is called the apnea hypopnea index or AHI. You should record your AHI as in the future your physician will want to know it.

Treatment Options

Weight Loss: In individual who have excessive body weight (body mass index greater than 30) weight loss can be beneficial. Physicians are not able to identify those will benefit. If you are overweight, weight reduction should be a part of your treatment plan.

Exercises: There are no exercises to improve tongue or throat muscle tone to treat OSA. A battery powered tongue stimulator was introduced for mild obstructive apnea in 2021. Device approved by FDA for mild apnea

Medications: There are no medications to treat OSA. Studies are evaluating agents.

Surgeries: Surgeries are available to treat obstructive sleep apnea. Unfortunately, the success rate is lower than other forms of treatment. Physicians have a difficult time identifying the correct candidates. Even when surgery is successful, recurrence rates are high. Surgeries have a role in treating individuals with specific anatomic issues and complicated sleep apnea.

Devices:

Constant positive airway pressure – CPAP (and other positive pressure therapy): Positive airway pressure therapy is the current treatment of choice for most individuals. It is safe, has no significant long-term complications, is economical, and quite effective. It corrects the apnea with mild, moderate and severe apnea almost always (>90%). It improves symptoms most of the time.

Mandibular advancement dental devices (MAD): Retainers that are made for upper and lower teeth. They interact so that while sleeping the lower jaw (mandible) is pulled forward. They can be effective therapy. The best candidate is thin, has an AHI of less than 15 and has some positional change to their apnea. The frequency of success drops as weight increases and the AHI increases. They have complication rate of 20% or greater every 5 years from temporal mandibular joint (TMJ) problems and dental malalignment. They are more expensive than positive airway pressure therapy.

<u>Nasal resistance therapy</u>: For patients with loud snoring or very mild apnea. Low success rate.

<u>Positional therapy</u>: For patients with apnea only when sleeping on their backs. Best success rate is with lower AHI.

<u>Throat stimulator therapy</u>: Surgically implanted device that stimulates throat muscle to open during apnea, relatively newly approved (2021/22) and expensive. Used for patients who fail other therapy.