

# Medical Policy

## Inspire Upper Airway Stimulation – Hypoglossal Nerve Stimulation Therapy for Obstructive Sleep Apnea

**Policy Number:** 1072

Policy History			
Approve Date:	03/03/2017	Effective Date:	10/01/2017
Reviewed/Revised Date:	09/01/2019, 08/18/2020		

Preauthorization	
All Plans	Benefit plans vary in coverage and some plans may not provide coverage for certain service(s) listed in this policy. Decisions for authorization are subject to all terms and conditions of the applicable benefit plan, including specific exclusions and limitations as well as applicable state and/or federal laws. Please review the benefit plan descriptions for details.

### Policy

#### Indications of Coverage

WEA Trust considers Inspire Upper Airway Stimulation medically necessary for Obstructive Sleep Apnea (OSA) if the following criteria are met:

- I. The member must have:
  - A. Demonstrated CPAP trial for three months that was unsuccessful and is documented by the treating physician AND
  - B. An apnea-hypopnea index (AHI) between 20 and 60 AND
  - C. A BMI below 32 AND
  - D. A sedated endoscopic procedure during the evaluation process that reveals an incomplete concentric collapse at the level of the soft palate

WEA Trust considers Inspire Upper Airway Stimulation not medically appropriate or necessary for Obstructive Sleep Apnea (OSA) if there is lateral wall collapse in addition to anteroposterior collapse of the soft palate.

#### Background

Inspire therapy is a small, fully implanted system that senses breathing patterns and delivers mild stimulation to maintain multilevel airway patency during sleep. Upper airway stimulation technology provides a first of its kind alternative for those suffering from obstructive sleep apnea who are unable to use or get consistent benefit from CPAP.

The Inspire system consists of three implanted components including a small generator, breathing sensor lead, and stimulation lead, all controlled with the small handheld Inspire sleep remote.

## References

The above policy is based on the following references:

1. Cereal, V., Zaghi, S., Riaz, M., Vieira, A., Pinheiro, C., Kushida, C. ...Camacho, M. (2015). Hypoglossal nerve stimulation in the treatment of obstructive sleep apnea: A systematic review and meta-analysis. *Laryngoscope*. May;125(5):1254-64. doi: 10.1002/lary.25032. Epub 2014 Nov 12. PMID: 25389029
2. ECRI Institute. (2015). Inspire II Upper Airway Stimulation Therapy (Inspire Medical Systems, Inc.) for Treating Obstructive Sleep Apnea. Plymouth Meeting, PA: ECRI Institute.
3. Hayes, Inc. Health Technology Brief. Hypoglossal Nerve Stimulation (Inspire Upper Airway Stimulation; Inspire Medical Systems Inc.) for Treatment of Obstructive Sleep Apnea. Lansdale, PA: Hayes, Inc. Nov 2014, Annual Review Sept 2015.
4. Hayes, Inc. Directory. Hypoglossal Nerve Stimulation for the Treatment of Obstructive Sleep Apnea. Lansdale, PA: Hayes, Inc. March, 2016.
5. Woodson, B., Gillespie, M., Soose, R., Maurer, J., de Vries, N., Steward, D. ...Strollo, P. (2014). Randomized controlled withdrawal study of upper airway stimulation on OSA: short- and long-term effect. *Otolaryngol Head Neck Surg*. Nov;151(5):880-7. doi: 10.1177/0194599814544445. Epub 2014 Sep 9. PMID: 25205641