Coma Stimulation

Policy Number:	**M20191113054**
Effective Date:	**1/1/2020**
Sponsoring Department:	**Health Care Services**
Impacted Department(s):	**Health Care Services**

Type of Policy: ☐ Internal ☒ External

Data Classification: ☐Confidential ☐Restricted ☒Public

Applies to (Line of Business):

☐ Corporate (All)
☒ State Products, if yes which plan(s): ☒MediSource; ☒MediSource Connect; ☒Child Health Plus; ☒Essential Plan
☒ Medicare, if yes, which plan(s): ☒MAPD; ☐PDP; ☒ISNP; ☒CSNP
☒ Commercial, if yes, which type: ☒Large Group; ☒Small Group; ☒Individual
☒ Self-Funded Services *(Refer to specific Summary Plan Descriptions (SPDs) to determine any pre-authorization or pre-certification requirements and coverage limitations. In the event of any conflict between this policy and the SPD of a Self-Funded Plan, the SPD shall supersede the policy.)*

Excluded Products within the Selected Lines of Business (LOB)

N/A

Applicable to Vendors? Yes ☐ No☒

Purpose and Applicability:

To set forth the criteria necessary to determine the medical necessity of admission to a **coma stimulation** program.

Policy:

Commercial, Self-Funded, Medicare Advantage, MediSource, MediSource Connect, Child Health Plus and Essential Plan:
Coma stimulation (also known as coma stimulation sessions, coma arousal therapy, multisensory stimulation programs and coma care) for brain injured individuals in a coma or vegetative state is considered investigational and not medically necessary because its effectiveness has not been established.

Background:
There is a broad spectrum of medical and neurologic disease conditions causing **coma**. The list of potential differential diagnoses is long, including, but not limited to, injury, infections, emboli and tumors. Most cases of coma presenting to an emergency department are due to trauma, cerebrovascular disease, intoxications, infections, and seizures.

It has been proposed that comatose individuals treated with intense and repeated stimulation following very precise protocols could awaken earlier from coma and return to a higher level of functioning. Stimulation activities may include visual, auditory, tactile, taste and smell. Controlled trials comparing usual care with and without sensory stimulation programs are needed to validate this outcome. A review of the peer-reviewed published scientific evidence failed to identify any controlled studies.

An evaluation of the peer-reviewed scientific literature, including but not limited to subscription materials, has provided Independent Health the basis for its medical necessity coverage outlined above.

Pre-Authorization Required? Yes ☒ No ☐

Pre-authorization is required for this service.

Definitions

Coma, also called persistent vegetative state, is a profound or deep state of unconsciousness. Coma may occur as a complication of an underlying illness, or because of injuries, such as head trauma. Individuals in such a state have lost their thinking abilities and awareness of their surroundings but retain non-cognitive function and normal sleep patterns.

Coma stimulation is a planned series of activities aimed at arousing a person from a comatose state.

References

Related Policies, Processes and Other Documents
N/A

Non-Regulatory references
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Li J, Cheng Q, Liu FK. Et al Sensory stimulation to improve arousal in comatose patients after traumatic brain injury: a systematic review of the literature. Neurol Sci. 2020 Sep;41(9):2367-2376.

Medscape [web site]. Traumatic Brain Injury (TBI) - Definition, Epidemiology, Pathophysiology: Overview. Updated September 25, 2023. Available at: http://emedicine.medscape.com/article/326510-overview Accessed April 21, 2025.

Megha M, Harpreet S, Nayeem Z. Effect of frequency of multimodal coma stimulation on the consciousness levels of traumatic brain injury comatose patients. Brain Inj. 2013;27(5):570-7.

Meyer MJ, Megyesi J, Meythaler J, et al. Acute management of acquired brain injury Part III: an evidence-based review of interventions used to promote arousal from coma. Brain Inj. 2010; b24(5):722-729.

National Institute of Neurological Disorders and Stroke (NINDS) [web site]. Traumatic Brain Injury Information Page. Last Updated November 28, 2023. Available at: https://www.ninds.nih.gov/Disorders/All-Disorders/Traumatic-Brain-Injury-Information-Page Accessed April 21, 2025.

Padilla R, Domina A. Effectiveness of Sensory Stimulation to Improve Arousal and Alertness of People in a Coma or Persistent Vegetative State After Traumatic Brain Injury: A Systematic Review. Am J Occup Ther. 2016 May-Jun;70(3):7003180030p1-8.

Regulatory References
N/A

This policy contains medical necessity criteria that apply for this service. Please note that payment for covered services is subject to eligibility criteria, contract exclusions and the limitations noted in the member's contract at the time the services are rendered.

Version Control

Signature / Approval on File? Yes ☒ No☐

Revision Date	Owner	Notes
8/1/2025	Health Care Services	Reviewed
8/1/2024	Health Care Services	Reviewed
1/1/2024	Health Care Services	Revised
9/1/2023	Health Care Services	Reviewed
10/1/2022	Health Care Services	Reviewed
11/1/2021	Health Care Services	Reviewed
12/1/2020	Health Care Services	Reviewed