BlueCross BlueShield Federal Employee Program.

FEP Medical Policy Manual

FEP 7.01.170 Laser Interstitial Thermal Therapy for Neurological Conditions

Annual Effective Policy Date: April 1, 2026

Original Policy Date: March 2022

Related Policies:

6.01.10 - Stereotactic Radiosurgery and Stereotactic Body Radiotherapy

Laser Interstitial Thermal Therapy for Neurological Conditions

Description

Description

Laser interstitial thermal therapy (LITT) involves the introduction of a laser fiber probe to deliver thermal energy for the targeted ablation of diseased tissue. The goal of therapy is selective thermal injury through the maintenance of a sharp thermal border, as monitored via the parallel use of real-time magnetic resonance (MR) thermography and controlled with the use of actively cooled applicators. In neurological applications, LITT involves the creation of a transcranial burr hole for the placement of the laser probe at the target brain tissue. Probe position, ablation time, and intensity are controlled under magnetic resonance imaging (MRI) guidance. LITT has been proposed as a less invasive treatment option for patients with neurological conditions compared to surgery. Two LITT systems, Visualase and NeuroBlate, have received marketing clearance from the U.S. Food and Drug Administration (FDA).

OBJECTIVE

The objective of this evidence review is to determine whether the use of MR-guided laser interstitial thermal therapy (LITT) improves the net health outcomes in individuals with neurological conditions.

POLICY STATEMENT

Laser interstitial thermal therapy (LITT) is considered **investigational** for all neurological indications, including but not limited to individuals with primary or metastatic brain tumors, radiation necrosis, and drug-resistant epilepsy.

POLICY GUIDELINES

None

BENEFIT APPLICATION

Experimental or investigational procedures, treatments, drugs, or devices are not covered (See General Exclusion Section of brochure).

FDA REGULATORY STATUS

In August 2007, the Visualase MRI-Guided Laser Ablation System (Medtronic; formerly Biotex, Inc.) received initial marketing clearance by the U.S. Food and Drug Administration (FDA) through the 510(k) pathway (K071328). In January 2022 (K211269), the system (software version 3.4) was classified as a neurosurgical tool with narrowed indications for use, including "to ablate, necrotize or coagulate intracranial soft tissue including brain structures (for example, brain tumor, radiation necrosis and epileptic foci as identified by non-invasive and invasive neurodiagnostic testing, including imaging) through interstitial irradiation or thermal therapy in medicine and surgery in the discipline of neurosurgery with 800 nm through 1064 nm lasers." The device is contraindicated for patients with medical conditions or implanted medical devices contraindicated for MRI and for patients whose physician determines that LITT or invasive surgical procedures in the brain are not acceptable. Data from compatible MRI sequences can be processed to relate imaging changes to relative changes in tissue temperature during therapy. The Visualase cooling applicator utilizes saline.

In April 2013, the NeuroBlate System (Monteris Medical) received initial clearance for marketing by the FDA through the 510(k) pathway (K120561). As of August 2020, the system is indicated for use "to ablate, necrotize, or coagulate intracranial soft tissue, including brain structures (eg, brain tumor and epileptic foci as identified by non-invasive and invasive neurodiagnostic testing, including imaging), through interstitial irradiation or thermal therapy in medicine and surgery in the discipline of neurosurgery with 1064 nm lasers" (K201056). The device is intended for planning and monitoring of thermal therapy under MRI guidance, providing real-time thermographic analysis of selected MRI images. The NeuroBlate system utilizes a laser probe with a sapphire capsule to promote prolonged, pulsed laser firing and a controlled cooling applicator employing pressurized CO_2.

RATIONALE

Summary of Evidence

For individuals who have primary or metastatic brain tumors who receive magnetic resonance (MR)-guided laser interstitial thermal therapy (LITT), the evidence includes systematic reviews and meta-analyses and several nonrandomized comparative and single-arm studies. Relevant outcomes are overall survival (OS), disease-specific survival, symptoms, change in disease status, functional outcomes, quality of life, and treatment-related morbidity. Overall survival estimates have ranged from 9.0 to 14.4 months in new or recurrent glioblastoma. Among patients with metastatic tumors receiving LITT following prior stereotactic radiosurgery (SRS), OS rates have ranged between 72% to 76% at 6 months and 63% to 65% at 12 months. In a more heterogenous population of patients with primary and metastatic brain tumors who received LITT, 12-month OS rates were slightly lower in patients with brain metastases (56.3%) and high-grade glioma (43.0%) than other analyses. Systematic reviews comparing LITT to open craniotomy with resection or SRS suggest a reduced incidence of adverse events with LITT; however, neurological deficits attributable to LITT-induced thermal damage have been observed despite concurrent magnetic resonance imaging (MRI) guidance. Studies are limited by predominantly retrospective designs, small sample sizes, and population heterogeneity, with study subjects varying by performance status, lesion volume and location, extent of prior therapies, and extent of ablation. Prospective comparative studies in well-defined and -controlled patient populations are lacking. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have symptomatic cranial radiation necrosis who receive MR-guided LITT, the evidence includes meta-analyses, nonrandomized comparative studies, and a single-arm study. Relevant outcomes are OS, disease-specific survival, symptoms, change in disease status, functional outcomes, quality of life, and treatment-related morbidity. Studies have reported improved local control and survival outcomes in patients with radiation necrosis compared to those with brain metastases. One study comparing LITT to bevacizumab suggested that LITT treatment may be more successful among patients before radiation necrosis lesions become symptomatic. One study comparing LITT to craniotomy and one study comparing LITT to medical management did not report significant survival differences between groups. Studies are limited by retrospective designs, small sample sizes, population heterogeneity, and unclear relevance, as symptomatic status and steroid-related morbidity were not consistently reported. Prospective comparative studies in well-defined and -controlled patient populations are lacking. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have drug-resistant epilepsy who receive MR-guided LITT, the evidence includes systematic reviews and meta-analyses, nonrandomized comparative studies, and single-arm studies. Relevant outcomes are disease-specific survival, symptoms, change in disease status, functional outcomes, quality of life, and treatment-related morbidity. Meta-analyses have reported seizure freedom rates ranging from 50% to 61% but are limited by heterogeneous study populations and follow-up durations. Studies comparing LITT to open resection have reported comparable outcomes in patients with pediatric insular epilepsy and adult temporal lobe epilepsy (TLE). In one meta-analysis comparing LITT to radiofrequency ablation (RFA) and conventional surgery, superior outcomes were noted with conventional surgery among patients with TLE. A subsequent meta-analysis concluded that while there is no evidence to suggest that LITT is less effective then open surgical resection in the short term, long-term data are lacking. Total quality of life scores reported in the ongoing LAANTERN registry increased by 72.4%, but this change was not considered statistically significant. Prospective comparative studies in well-defined and -controlled patient populations are required to assess a net health outcome and to identify patients most likely to benefit from LITT. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

SUPPLEMENTAL INFORMATION

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Association of Neurological Surgeons et al

In September 2021, the American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS) Joint Section on Tumors issued a position statement regarding the use of laser interstitial thermal therapy (LITT) for brain tumors and radiation necrosis.[40,] The statement concludes that "LITT is an appealing option because it offers a method of minimally invasive, targeted thermal ablation of a lesion with minimal damage to healthy tissue. There is a growing body of evidence to demonstrate that LITT is an effective and well tolerated cytoreductive option for treatment of [newly diagnosed gliobastoma multiforme (GBM), recurrent GBM, and primary or recurrent brain metastases.] Intracranial LITT is also an effective option for addressing radiation necrosis with an overall reduction in steroid dependence for these patients. Especially in instances where the therapeutic window is narrowed such that craniotomy is not a viable option, LITT can play an important role in treatment for glioma or metastatic brain cancer."

American Society of Clinical Oncology et al

In 2021, the American Society of Clinical Oncology (ASCO) issued a joint evidence-based guideline on the treatment of brain metastases with the Society for Neuro-Oncology (SNO) and the American Society for Radiation Oncology (ASTRO).[41,] The guideline stated that "no recommendation can be made for or against laser interstitial thermal therapy (Type: informal consensus; Evidence quality: low; Strength of recommendation: none)."

American Society for Stereotactic and Functional Neurosurgery

In September 2021, the American Society for Stereotactic and Functional Neurosurgery (ASSFN) issued a position statement on the use of LITT in drug-resistant epilepsy.[42,] The statement recommends consideration of MR-guided LITT (MRgLITT) as a treatment option when all of the following criteria are met:

- "Failure to respond to, or intolerance of, at least 2 appropriately chosen medications at appropriate doses for disabling, localization-related epilepsy AND

- Well-defined epileptogenic foci or critical pathways of seizure propagation accessible by MRgLITT."

Congress of Neurological Surgeons

The Congress of Neurological Surgeons (CNS) guidelines for the treatment of adults with metastatic brain tumors (2019) state that "there is insufficient evidence to make a recommendation regarding the routine use of laser interstitial thermal therapy (LITT), aside from use as part of approved clinical trials."[43,]

International Stereotactic Radiosurgery Society

In 2024, the International Stereotactic Radiosurgery Society published recommendations for managing radiation necrosis after stereotactic radiosurgery.[17,] Patients with corticosteroid-refractory symptoms can be considered for LITT based on low quality evidence (weak recommendation). The suggested management flowchart includes LITT as a treatment option for patients with refractory symptoms after noninvasive therapy such as bevacizumab or hyperbaric oxygen therapy, and as first-line or second-line therapy for patients with more severe symptoms who require invasive treatment.

National Comprehensive Cancer Network

The National Comprehensive Cancer Network (NCCN) clinical practice guidelines for central nervous system cancers (v.3.2024) states that MRgLITT "may be considered for patients who are poor surgical candidates (craniotomy or resection). Potential indications include relapsed brain metastases, radiation necrosis, glioblastoma, and other gliomas." (Category 2B)[44,] The guidelines additionally state that LITT "can be considered on a case-by-case basis for treatment of radiation necrosis in patients with a history of RT [radiation therapy] for primary brain tumor or metastatic disease. Consultation with neurosurgeons trained in LITT should be done when the procedure is considered."

National Institute for Health and Care Excellence

In 2020, NICE published an interventional procedures guidance on the use of MR-guided LITT for drug-resistant epilepsy.[45,] The NICE recommends that LITT should only be used with special arrangements, given serious but well-recognized safety concerns and low quality evidence for efficacy.

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

In 1997, the Centers for Medicare and Medicaid Services (CMS) issued a national coverage determination on the use of laser procedures, stating that "in the absence of a specific noncoverage instruction, and where a laser has been approved for marketing by the Food and Drug Administration, Medicare Administrative Contractor discretion may be used to determine whether a procedure performed with a laser is reasonable and necessary, and, therefore, covered."[46,]

REFERENCES

1. Lagman C, Chung LK, Pelargos PE, et al. Laser neurosurgery: A systematic analysis of magnetic resonance-guided laser interstitial thermal therapies. J Clin Neurosci. Feb 2017; 36: 20-26. PMID 27838155
2. Medvid R, Ruiz A, Komotar RJ, et al. Current Applications of MRI-Guided Laser Interstitial Thermal Therapy in the Treatment of Brain Neoplasms and Epilepsy: A Radiologic and Neurosurgical Overview. AJNR Am J Neuroradiol. Nov 2015; 36(11): 1998-2006. PMID 26113069
3. Holste KG, Orringer DA. Laser interstitial thermal therapy. Neurooncol Adv. 2020; 2(1): vdz035. PMID 32793888
4. Pandey A, Chandla A, Mekonnen M, et al. Safety and Efficacy of Laser Interstitial Thermal Therapy as Upfront Therapy in Primary Glioblastoma and IDH-Mutant Astrocytoma: A Meta-Analysis. Cancers (Basel). Jun 03 2024; 16(11). PMID 38893250
5. Zhao X, Li R, Guo Y, et al. Laser interstitial thermal therapy for recurrent glioblastomas: a systematic review and meta-analysis. Neurosurg Rev. Apr 16 2024; 47(1): 159. PMID 38625588

6. Alkazemi M, Lo YT, Hussein H, et al. Laser Interstitial Thermal Therapy for the Treatment of Primary and Metastatic Brain Tumors: A Systematic Review and Meta-Analysis. World Neurosurg. Mar 2023; 171: e654-e671. PMID 36549438
7. Chen C, Guo Y, Chen Y, et al. The efficacy of laser interstitial thermal therapy for brain metastases with in-field recurrence following SRS: systemic review and meta-analysis. Int J Hyperthermia. 2021; 38(1): 273-281. PMID 33612043
8. de Franca SA, Tavares WM, Salinet ASM, et al. Laser interstitial thermal therapy as an adjunct therapy in brain tumors: A meta-analysis and comparison with stereotactic radiotherapy. Surg Neurol Int. 2020; 11: 360. PMID 33194293
9. Barnett GH, Voigt JD, Alhuwalia MS. A Systematic Review and Meta-Analysis of Studies Examining the Use of Brain Laser Interstitial Thermal Therapy versus Craniotomy for the Treatment of High-Grade Tumors in or near Areas of Eloquence: An Examination of the Extent of Resection and Major Complication Rates Associated with Each Type of Surgery. Stereotact Funct Neurosurg. 2016; 94(3): 164-73. PMID 27322392
10. Grabowski MM, Srinivasan ES, Vaios EJ, et al. Combination laser interstitial thermal therapy plus stereotactic radiotherapy increases time to progression for biopsy-proven recurrent brain metastases. Neurooncol Adv. 2022; 4(1): vdac086. PMID 35795470
11. Fadel HA, Haider S, Pawloski JA, et al. Laser Interstitial Thermal Therapy for First-Line Treatment of Surgically Accessible Recurrent Glioblastoma: Outcomes Compared With a Surgical Cohort. Neurosurgery. Nov 01 2022; 91(5): 701-709. PMID 35986677
12. Mohammadi AM, Sharma M, Beaumont TL, et al. Upfront Magnetic Resonance Imaging-Guided Stereotactic Laser-Ablation in Newly Diagnosed Glioblastoma: A Multicenter Review of Survival Outcomes Compared to a Matched Cohort of Biopsy-Only Patients. Neurosurgery. Dec 01 2019; 85(6): 762-772. PMID 30476325
13. Rennert RC, Khan U, Bartek J, et al. Laser Ablation of Abnormal Neurological Tissue Using Robotic Neuroblate System (LAANTERN): Procedural Safety and Hospitalization. Neurosurgery. Apr 01 2020; 86(4): 538-547. PMID 31076762
14. Kim AH, Tatter S, Rao G, et al. Laser Ablation of Abnormal Neurological Tissue Using Robotic NeuroBlate System (LAANTERN): 12-Month Outcomes and Quality of Life After Brain Tumor Ablation. Neurosurgery. Sep 01 2020; 87(3): E338-E346. PMID 32315434
15. de Groot JF, Kim AH, Prabhu S, et al. Efficacy of laser interstitial thermal therapy (LITT) for newly diagnosed and recurrent IDH wild-type glioblastoma. Neurooncol Adv. 2022; 4(1): vdac040. PMID 35611270
16. Gecici NN, Gurses ME, Kaye B, et al. Comparative analysis of bevacizumab and LITT for treating radiation necrosis in previously radiated CNS neoplasms: a systematic review and meta-analysis. J Neurooncol. May 2024; 168(1): 1-11. PMID 38619777
17. Vellayappan B, Lim-Fat MJ, Kotecha R, et al. A Systematic Review Informing the Management of Symptomatic Brain Radiation Necrosis After Stereotactic Radiosurgery and International Stereotactic Radiosurgery Society Recommendations. Int J Radiat Oncol Biol Phys. Jan 01 2024; 118(1): 14-28. PMID 37482137
18. Palmisciano P, Haider AS, Nwagwu CD, et al. Bevacizumab vs laser interstitial thermal therapy in cerebral radiation necrosis from brain metastases: a systematic review and meta-analysis. J Neurooncol. Aug 2021; 154(1): 13-23. PMID 34218396
19. Sankey EW, Grabowski MM, Srinivasan ES, et al. Time to Steroid Independence After Laser Interstitial Thermal Therapy vs Medical Management for Treatment of Biopsy-Proven Radiation Necrosis Secondary to Stereotactic Radiosurgery for Brain Metastasis. Neurosurgery. Jun 01 2022; 90(6): 684-690. PMID 35311745
20. Sujijantarat N, Hong CS, Owusu KA, et al. Laser interstitial thermal therapy (LITT) vs. bevacizumab for radiation necrosis in previously irradiated brain metastases. J Neurooncol. Jul 2020; 148(3): 641-649. PMID 32602021
21. Hong CS, Deng D, Vera A, et al. Laser-interstitial thermal therapy compared to craniotomy for treatment of radiation necrosis or recurrent tumor in brain metastases failing radiosurgery. J Neurooncol. Apr 2019; 142(2): 309-317. PMID 30656529
22. Ahluwalia M, Barnett GH, Deng D, et al. Laser ablation after stereotactic radiosurgery: a multicenter prospective study in patients with metastatic brain tumors and radiation necrosis. J Neurosurg. Mar 01 2019; 130(3): 804-811. PMID 29726782
23. Kwan P, Arzimanoglou A, Berg AT, et al. Definition of drug resistant epilepsy: consensus proposal by the ad hoc Task Force of the ILAE Commission on Therapeutic Strategies. Epilepsia. Jun 2010; 51(6): 1069-77. PMID 19889013
24. Wieser HG, Blume WT, Fish D, et al. ILAE Commission Report. Proposal for a new classification of outcome with respect to epileptic seizures following epilepsy surgery. Epilepsia. Feb 2001; 42(2): 282-6. PMID 11240604
25. Ekman F, Bjellvi J, Ljunggren S, et al. Laser interstitial thermal therapy versus open surgery for mesial temporal lobe epilepsy: A systematic review and meta-analysis. World Neurosurg. Sep 25 2024. PMID 39332763
26. Hect JL, Harford E, Maroufi SF, et al. Clinical outcomes of MR-guided laser interstitial thermal therapy corpus callosum ablation in drug-resistant epilepsy: a systematic review and meta-analysis. J Neurosurg Pediatr. Jan 01 2024; 33(1): 12-21. PMID 37856385
27. Barot N, Batra K, Zhang J, et al. Surgical outcomes between temporal, extratemporal epilepsies and hypothalamic hamartoma: systematic review and meta-analysis of MRI-guided laser interstitial thermal therapy for drug-resistant epilepsy. J Neurol Neurosurg Psychiatry. Feb 2022; 93(2): 133-143. PMID 34321344
28. Marathe K, Alim-Marvasti A, Dahele K, et al. Resective, Ablative and Radiosurgical Interventions for Drug Resistant Mesial Temporal Lobe Epilepsy: A Systematic Review and Meta-Analysis of Outcomes. Front Neurol. 2021; 12: 777845. PMID 34956057
29. Kohlhase K, Zllner JP, Tandon N, et al. Comparison of minimally invasive and traditional surgical approaches for refractory mesial temporal lobe epilepsy: A systematic review and meta-analysis of outcomes. Epilepsia. Apr 2021; 62(4): 831-845. PMID 33656182
30. Brotis AG, Giannis T, Paschalis T, et al. A meta-analysis on potential modifiers of LITT efficacy for mesial temporal lobe epilepsy: Seizure-freedom seems to fade with time. Clin Neurol Neurosurg. Apr 20 2021; 205: 106644. PMID 33962146
31. Grewal SS, Alvi MA, Lu VM, et al. Magnetic Resonance-Guided Laser Interstitial Thermal Therapy Versus Stereotactic Radiosurgery for Medically Intractable Temporal Lobe Epilepsy: A Systematic Review and Meta-Analysis of Seizure Outcomes and Complications. World Neurosurg. Feb 2019; 122: e32-e47. PMID 30244184
32. Xue F, Chen T, Sun H. Postoperative Outcomes of Magnetic Resonance Imaging (MRI)-Guided Laser Interstitial Thermal Therapy (LITT) in the Treatment of Drug-Resistant Epilepsy: A Meta-Analysis. Med Sci Monit. Dec 21 2018; 24: 9292-9299. PMID 30573725
33. Hoppe C, Helmstaedter C. Laser interstitial thermotherapy (LiTT) in pediatric epilepsy surgery. Seizure. Apr 2020; 77: 69-75. PMID 30591281

34. Hale AT, Sen S, Haider AS, et al. Open Resection versus Laser Interstitial Thermal Therapy for the Treatment of Pediatric Insular Epilepsy. Neurosurgery. Oct 01 2019; 85(4): E730-E736. PMID 30888028
35. Petito GT, Wharen RE, Feyissa AM, et al. The impact of stereotactic laser ablation at a typical epilepsy center. Epilepsy Behav. Jan 2018; 78: 37-44. PMID 29172137
36. Esmaeili B, Hakimian S, Ko AL, et al. Epilepsy-Related Mortality After Laser Interstitial Thermal Therapy in Patients With Drug-Resistant Epilepsy. Neurology. Sep 26 2023; 101(13): e1359-e1363. PMID 37202163
37. Kanner AM, Irving LT, Cajigas I, et al. Long-term seizure and psychiatric outcomes following laser ablation of mesial temporal structures. Epilepsia. Apr 2022; 63(4): 812-823. PMID 35137956
38. Landazuri P, Shih J, Leuthardt E, et al. A prospective multicenter study of laser ablation for drug resistant epilepsy - One year outcomes. Epilepsy Res. Nov 2020; 167: 106473. PMID 33045664
39. Wu C, Jermakowicz WJ, Chakravorti S, et al. Effects of surgical targeting in laser interstitial thermal therapy for mesial temporal lobe epilepsy: A multicenter study of 234 patients. Epilepsia. Jun 2019; 60(6): 1171-1183. PMID 31112302
40. Barnett G, Leuthardt E, Rao G, et al. American Association of Neurological Surgeons and Congress of Neurological Surgeons (AANS-CNS) Position Statement on MR-guided Laser Interstitial Thermal Therapy (LITT) for Brain Tumors and Radiation Necrosis. September 2021; https://www.aans.org/-/media/Files/AANS/Advocacy/PDFS/AANS-CNS_Position_Statement_Paper_LITT_Tumor-Oncology_090721.ashx. Accessed October 11, 2024.
41. Vogelbaum MA, Brown PD, Messersmith H, et al. Treatment for Brain Metastases: ASCO-SNO-ASTRO Guideline. J Clin Oncol. Feb 10 2022; 40(5): 492-516. PMID 34932393
42. Wu C, Schwalb JM, Rosenow J, et al. American Society for Stereotactic and Functional Neurosurgery Position Statement on Laser Interstitial Thermal Therapy for the Treatment of Drug-Resistant Epilepsy. September 2021; https://www.aans.org/-/media/Files/AANS/Advocacy/PDFS/ASSFN_Position_Statement_on_LITT_for_the_Treatment_of_Drug_Resistant_Epilepsy_091321.ashx. Accessed October 11, 2024.
43. Elder JB, Nahed BV, Linskey ME, et al. Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines on the Role of Emerging and Investigational Therapies for the Treatment of Adults With Metastatic Brain Tumors. Neurosurgery. Mar 01 2019; 84(3): E201-E203. PMID 30629215
44. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: Central Nervous System Cancers. Version 3.2024; https://www.nccn.org/professionals/physician_gls/pdf/cns.pdf. Accessed October 11, 2024.
45. National Institute for Health and Care Excellence (NICE). Interventional procedures guidance: MRI-guided laser interstitial thermal therapy for drug-resistant epilepsy [IPG671]. March 4, 2020; https://www.nice.org.uk/guidance/ipg671. Accessed October 11, 2024.
46. Centers for Medicare and Medicaid Services (CMS). National Coverage Determination: Laser Procedures (140.5). 1997; https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?NCDId=69&ncdver=1&DocID=140.5. Accessed October 11, 2024.

POLICY HISTORY - THIS POLICY WAS APPROVED BY THE FEP® PHARMACY AND MEDICAL POLICY COMMITTEE ACCORDING TO THE HISTORY BELOW:

Date	Action	Description
March 2022	New policy	Policy created with literature review through November 3, 2021. Laser interstitial thermal therapy is considered investigational for all neurological indications, including but not limited to primary and metastatic brain tumors, radiation necrosis, and drug-resistant epilepsy.
March 2023	Replace policy	Policy updated with literature review through November 14, 2022. Minor editorial refinements to policy statement; intent unchanged.
March 2024	Replace policy	Policy updated with literature review through October 24, 2023; references added. Policy statements unchanged.
March 2025	Replace policy	Policy updated with literature review through October 14, 2024; references added. Policy statements unchanged.
March 2026	Replace policy	Policy updated with literature review through October 14, 2024; references added. Policy statements unchanged.