

MEDICAL POLICY

POLICY TITLE	MAGNETIC RESONANCE-GUIDED FOCUSED ULTRASOUND
POLICY NUMBER	MP 5.053

CLINICAL BENEFIT	<input type="checkbox"/> MINIMIZE SAFETY RISK OR CONCERN. <input checked="" type="checkbox"/> MINIMIZE HARMFUL OR INEFFECTIVE INTERVENTIONS. <input checked="" type="checkbox"/> ASSURE APPROPRIATE LEVEL OF CARE. <input type="checkbox"/> ASSURE APPROPRIATE DURATION OF SERVICE FOR INTERVENTIONS. <input checked="" type="checkbox"/> ASSURE THAT RECOMMENDED MEDICAL PREREQUISITES HAVE BEEN MET. <input type="checkbox"/> ASSURE APPROPRIATE SITE OF TREATMENT OR SERVICE.
Effective Date:	3/1/2024

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I. POLICY

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Magnetic resonance-guided high-intensity ultrasound ablation may be considered **medically necessary** for pain palliation in adults with metastatic bone cancer who have failed or are not candidates for radiotherapy.

Magnetic resonance-guided high-intensity ultrasound ablation may be considered **medically necessary** for the treatment of medicine-refractory essential tremors.

Magnetic resonance -guided high-intensity ultrasound ablation is considered **investigational** in all other situations. There is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure.

The National Comprehensive Cancer Network (NCCN) is a nonprofit alliance of cancer centers throughout the United States. NCCN develops the Clinical Practice Guidelines in Oncology which are recommendations aimed to help health care professionals diagnose, treat and manage patients with cancer. Guidelines evolve continuously as new treatments and diagnostics emerge and may be used by Capital BlueCross when determining medical necessity according to this policy.

Cross-reference:

- MP 1.084** Radiofrequency Ablation of Miscellaneous Solid Tumors Excluding Liver Tumors
- MP 4.043** Treatments of the Prostate
- MP 7.027** Laparoscopic and Percutaneous Techniques for the Myolysis of Uterine Fibroids

II. PRODUCT VARIATIONS

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This policy is only applicable to certain programs and products administered by Capital Blue Cross please see additional information below, and subject to benefit variations as discussed in Section VI below.

FEP PPO:

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FEP PPO - Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:

<https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies>.

III. DESCRIPTION/BACKGROUND

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Uterine Fibroids

Uterine fibroids are one of the most common conditions affecting women in the reproductive years. Symptoms of uterine fibroids include menorrhagia, pelvic pressure, or pain.

Treatment

Several approaches currently available to treat symptomatic uterine fibroids include hysterectomy, abdominal myomectomy, laparoscopic and hysteroscopic myomectomy, hormone therapy, uterine artery embolization, and watchful waiting. Hysterectomy and various myomectomy procedures are considered the criterion standard treatment.

Metastatic Bone Disease

Metastatic bone disease is one of the most common causes of cancer pain.

Treatment

Existing treatments include conservative measures (e.g., massage, exercise) and pharmacologic agents (e.g., analgesics, bisphosphonates, and corticosteroids). For patients who do not respond to these treatments, standard care is external-beam radiotherapy. However, a substantial proportion of patients have residual pain after radiotherapy, and there is a need for alternative treatments for these patients. (One option, radiofrequency ablation, is addressed in related evidence review MP 1.084).

Essential tremors

Essential tremor (ET) is the most common movement disorder, with an estimated prevalence of 5% worldwide. ET most often affects the hands and arms, may affect head and voice, and rarely includes the face, legs, and trunk. ET is heterogeneous among patients, varying in frequency, amplitude, causes of exacerbation, and association with other neurologic deficits.

Treatment

The neuropathology of ET is uncertain, with some evidence suggesting that ET is localized in the brainstem and cerebellum. If patients with ET experience intermittent or persistent disability due to the tremors, initial therapy is with drugs (β -blockers or anticonvulsants). For medicine-refractory patients, surgery (deep brain stimulation or thalamotomy) may be offered, though high rates of adverse events have been observed.

Tremor-Dominant Parkinson Disease

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The 3 cardinal features of Parkinson disease (PD) are tremor, bradykinesia, and rigidity. The tremor in PD is a resting tremor that occurs when the body part is not engaged in purposeful activities. Major subtypes of PD include tremor-dominant, akinetic-rigid, and postural instability and gait difficulty. The progression of PD is highly variable and patients can change subtypes as the disease progresses.

Treatment

Dopaminergic therapy (ie, levodopa or a dopamine agonist) is the first-line treatment for PD, which improves tremor. Amantadine and anticholinergics (eg, trihexyphenidyl) can also be considered as initial treatment for tremor-dominant PD or as add-on therapy in patients who have persistent tremor despite dopaminergic therapy. For medication-refractory patients, surgery (deep brain stimulation or lesioning procedures) may be offered. Lesioning procedures include conventional unilateral thalamotomy and focused ultrasound thalamotomy. Deep brain stimulation is the most frequently performed surgical procedure for the treatment of PD.

Magnetic Resonance–Guided Focused Ultrasound

Magnetic resonance–guided focused ultrasound (MRgFUS) is a noninvasive treatment that combines 2 technologies: focused ultrasound and magnetic resonance imaging (MRI). The ultrasound beam penetrates through the soft tissues and, using MRI for guidance and monitoring, the beam can be focused on targeted sites. Ultrasound causes a local increase in temperature in the target tissue, resulting in coagulation necrosis while sparing the surrounding normal structures. Ultrasound waves from each sonication are directed at a focal point that has a maximum focal volume of 20 nm in diameter and 15 nm in height/length. This causes a rapid rise in temperature (i.e., to 65°C-85°C), which is sufficient to ablate tissue at the focal point. In addition to providing guidance, the associated MRI can provide online thermometric imaging, a temperature “map”, to confirm the therapeutic effect of the ablation treatment and allow for real-time adjustment of the treatment parameters.

The U.S. Food and Drug Administration (FDA) approved the ExAblate MRgFUS system (InSightec) for 2 indications: treatment of uterine fibroids (leiomyomata) and palliation of pain associated with tumors metastatic to bone. The ultrasound equipment is specifically designed to be compatible with magnetic resonance magnets, and it is integrated into standard clinical MRI units; it also includes a patient table, which has a cradle that houses the focused ultrasound transducer in water or a light oil bath. Some models have a detachable cradle; only certain cradle types can be used for palliation of pain associated with metastatic bone cancer. For treating pain associated with bone metastases, the aim of MRgFUS is to destroy nerves in the bone surface surrounding the tumor.

MRgFUS is also being investigated for the treatment of other tumors, including breast, prostate, brain, and desmoid tumors as well as nonspinal osteoid osteoma.

Regulatory Status

In October 2004, the ExAblate 2000 System (InSightec) was approved by the FDA through the premarket approval process for "ablation of uterine fibroid tissue in pre- or perimenopausal women

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with symptomatic uterine fibroids who desire a uterine sparing procedure." Treatment is indicated for women with a uterine gestational size of fewer than 24 weeks who have completed childbearing.

In October 2012, the ExAblate System, Model 2000/2100/2100 VI, was approved by the FDA through the premarket approval process for pain palliation in adults with metastatic bone cancer who have failed or are not candidates for radiotherapy. The device was evaluated through an expedited review process. The FDA required a postapproval study with 70 patients to evaluate the effectiveness of the system under actual clinical conditions.

In July 2016, the FDA approved the use of the ExAblate Neuro System for the treatment of ET in patients who have not responded to medication (beta-blockers or anticonvulsant drugs) through the premarket approval process. In December 2018, the FDA approved the use of the ExAblate Model 4000 (Neuro) for the treatment of tremor-dominant PD with medication-refractory tremor through the premarket approval process.

In November 2021, the FDA approved the use of the Exablate Prostate System for prostate tissue ablation through the premarket approval process.

FDA product codes: NRZ, POH, PLP.

IV. RATIONALE

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Summary of Evidence

For individuals who have uterine fibroids who receive magnetic resonance-guided focused ultrasound MRgFUS, the evidence includes 2 randomized controlled trials (RCTs), systemic reviews, nonrandomized comparative studies, and case series. Relevant outcomes are symptoms, quality of life, resource utilization, and treatment-related morbidity. One RCT (N=20) has reported some health outcomes, but its primary purpose was to determine the feasibility of a larger trial. It did not find statistically significant differences in quality of life outcomes between active and sham treatment groups, but it did find lower fibroid volumes after active treatment. This trial did not have an active comparator, the clinical significance of the primary outcome was unclear, and there were no follow-up data beyond 1 year. The second RCT (N=49) is ongoing; preliminary results at 6 weeks posttreatment, comparing MRgFUS with uterine artery embolization (UAE) have shown that the 2 groups are comparable in medication use and symptom improvement following treatments. Patients in the MRgFUS group reported recovering significantly faster than patients in the uterine artery embolization group, as measured by time to return to work and time to normal activities. Long-term data on the treatment effects, recurrence rates, and impact on future fertility and pregnancy are lacking. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with metastatic bone cancer who have failed or are not candidates for radiotherapy who receive MRgFUS, the evidence includes a sham-controlled randomized trial and several case series. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related morbidity. The RCT found statistically significant improvements after

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MRgFUS in a composite outcome comprised of a reduction in pain and morphine use, and in pain reduction as a stand-alone outcome. A substantial proportion of patients in the treatment group experienced adverse events, but most events were transient and not severe. The case series reported reductions in pain following MRgFUS treatment, consistent with the RCT. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with other tumors (eg, breast cancer, brain cancer, prostate cancer, desmoid, nonspinal osteoid osteoma) who receive MRgFUS, the evidence includes small case series. Relevant outcomes are symptoms, health status measures, and treatment-related morbidity. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals with medicine-refractory essential tremors who receive MRgFUS, the evidence includes 2 systematic reviews that identified an RCT and several observational studies. Relevant outcomes include symptoms, functional outcomes, quality of life, and treatment-related morbidity. The assessment did not pool study results but concluded that, overall, MRgFUS decreased tremor severity and improved quality of life. One meta-analysis reported significant improvements in hand tremor scores from baseline up to 24 months post-treatment, with evidence of a diminishing treatment benefit over time. Another meta-analysis found similar improvements in tremor severity with MRgFUS to unilateral deep brain stimulation (DBS), but improvements in both were inferior to bilateral DBS. The sham-controlled randomized trial found significant improvements in the treatment group in tremor severity, functional improvement, and quality of life after 3 months of follow-up. The improvements in hand tremor score, function, and quality of life were maintained at the 2-year follow-up. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals with medicine-refractory tremor dominant Parkinson disease (PD) who receive MRgFUS, the evidence includes a pilot RCT. Relevant outcomes include symptoms, functional outcomes, quality of life, and treatment-related morbidity. The double-blind, sham-controlled, pilot randomized trial (N=27) found significant improvements in the treatment group in tremor severity after 3 months of follow-up. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

V. DEFINITIONS

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N/A

VI. BENEFIT VARIATIONS

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The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of benefits. A member's health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits and which require preauthorization. There are different benefit plan designs in each product administered by Capital Blue Cross. Members and providers should consult the member's health benefit plan for information or contact Capital Blue Cross for benefit information.

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VII. DISCLAIMER

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Capital Blue Cross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital Blue Cross' Provider Services or Member Services. Capital Blue Cross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.

VIII. CODING INFORMATION

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Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Investigational, therefore not covered:

Procedure Codes								
0071T	0072T							

Covered when medically necessary:

Procedure Codes								
0398T	76498	C9734						

ICD-10-CM Diagnosis Codes	Description
C79.51	Secondary malignant neoplasm of bone
G25.0	Essential tremor

IX. REFERENCES

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1. Eltoukhi HM, Modi MN, Weston M, et al. The health disparities of uterine fibroid tumors for African American women: a public health issue. *Am J Obstet Gynecol.* Mar 2014; 210(3): 194-9. PMID 23942040
2. Blue Cross Blue Shield Association Technology Evaluation Center (TEC). Magnetic resonance-guided focused ultrasound therapy for symptomatic uterine fibroids. *TEC Assessments.* 2005; Volume 20: Tab 10
3. Barnard EP, AbdElmagied AM, Vaughan LE, et al. Periprocedural outcomes comparing fibroid embolization and focused ultrasound: a randomized controlled trial and

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comprehensive cohort analysis. Am J Obstet Gynecol. May 2017; 216(5): 500.e1-500.e11. PMID 28063909

4. Laughlin-Tommaso S, Barnard EP, AbdElmagied AM, et al. *FIRSTT study: randomized controlled trial of uterine artery embolization vs focused ultrasound surgery. Am J Obstet Gynecol. Feb 2019; 220(2): 174.e1-174.e13. PMID 30696556*
5. Jacoby VL, Kohi MP, Poder L, et al. *PROMISe trial: a pilot, randomized, placebo-controlled trial of magnetic resonance guided focused ultrasound for uterine fibroids. Fertil Steril. Mar 2016; 105(3): 773-780. PMID 26658133*
6. Gizzo S, Saccardi C, Patrelli TS, et al. *Magnetic resonance-guided focused ultrasound myomectomy: safety, efficacy, subsequent fertility and quality-of-life improvements, a systematic review. Reprod Sci. Apr 2014; 21(4): 465-76. PMID 23868442*
7. Xu F, Deng L, Zhang L, et al. *The comparison of myomectomy, UAE and MRgFUS in the treatment of uterine fibroids: a meta analysis. Int J Hyperthermia. Sep 2021; 38(2): 24-29. PMID 34420449*
8. Chen R, Keserci B, Bi H, et al. *The safety and effectiveness of volumetric magnetic resonance-guided high-intensity focused ultrasound treatment of symptomatic uterine fibroids: early clinical experience in China. J Ther Ultrasound. 2016; 4: 27. PMID 27822376*
9. Froeling V, Meckelburg K, Schreiter NF, et al. *Outcome of uterine artery embolization versus MR-guided high-intensity focused ultrasound treatment for uterine fibroids: long-term results. Eur J Radiol. Dec 2013; 82(12): 2265-9. PMID 24075785*
10. Otonkoski S, Sainio T, Mattila S, et al. *Magnetic resonance guided high intensity focused ultrasound for uterine fibroids and adenomyosis has no effect on ovarian reserve. Int J Hyperthermia. 2023; 40(1): 2154575. PMID 36535925*
11. Rabinovici J, David M, Fukunishi H, et al. *Pregnancy outcome after magnetic resonance-guided focused ultrasound surgery (MRgFUS) for conservative treatment of uterine fibroids. Fertil Steril. Jan 2010; 93(1): 199-209. PMID 19013566*
12. Baal JD, Chen WC, Baal U, et al. *Efficacy and safety of magnetic resonance-guided focused ultrasound for the treatment of painful bone metastases: a systematic review and meta-analysis. Skeletal Radiol. Dec 2021; 50(12): 2459-2469. PMID 34018007*
13. Hurwitz MD, Ghanouni P, Kanaev SV, et al. *Magnetic resonance-guided focused ultrasound for patients with painful bone metastases: phase III trial results. J Natl Cancer Inst. Apr 23 2014; 106(5). PMID 24760791*
14. Otonkoski S, Sainio T, Mattila S, et al. *Magnetic resonance guided high intensity focused ultrasound for uterine fibroids and adenomyosis has no effect on ovarian reserve. Int J Hyperthermia. 2023; 40(1): 2154575. PMID 36535925*
15. Liberman B, Gianfelice D, Inbar Y, et al. *Pain palliation in patients with bone metastases using MR-guided focused ultrasound surgery: a multicenter study. Ann Surg Oncol. Jan 2009; 16(1): 140-6. PMID 19002530*
16. Arrigoni F, Barile A, Zugaro L, et al. *Intra-articular benign bone lesions treated with Magnetic Resonance-guided Focused Ultrasound (MRgFUS): imaging follow-up and clinical results. Med Oncol. Apr 2017; 34(4): 55. PMID 28244018*
17. Zippel DB, Papa MZ. *The use of MR imaging guided focused ultrasound in breast cancer patients; a preliminary phase one study and review. Breast Cancer. 2005; 12(1): 32-8. PMID 15657521*

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18. Hynynen K, Pomeroy O, Smith DN, et al. MR imaging-guided focused ultrasound surgery of fibroadenomas in the breast: a feasibility study. *Radiology*. Apr 2001; 219(1): 176-85. PMID 11274554
19. Gianfelice D, Khiat A, Amara M, et al. MR imaging-guided focused US ablation of breast cancer: histopathologic assessment of effectiveness-- initial experience. *Radiology*. Jun 2003; 227(3): 849-55. PMID 12714680
20. Gianfelice D, Khiat A, Amara M, et al. MR imaging-guided focused ultrasound surgery of breast cancer: correlation of dynamic contrast-enhanced MRI with histopathologic findings. *Breast Cancer Res Treat*. Nov 2003; 82(2): 93-101. PMID 14692653
21. Merckel LG, Knuttel FM, Deckers R, et al. First clinical experience with a dedicated MRI-guided high-intensity focused ultrasound system for breast cancer ablation. *Eur Radiol*. Nov 2016; 26(11): 4037-4046. PMID 26852219
22. McDannold N, Clement GT, Black P, et al. Transcranial magnetic resonance imaging-guided focused ultrasound surgery of brain tumors: initial findings in 3 patients. *Neurosurgery*. Feb 2010; 66(2): 323-32; discussion 332. PMID 20087132
23. Arrigoni F, Spiliopoulos S, de Cataldo C, et al. A Bicentric Propensity Score Matched Study Comparing Percutaneous Computed Tomography-Guided Radiofrequency Ablation to Magnetic Resonance-Guided Focused Ultrasound for the Treatment of Osteoid Osteoma. *J Vasc Interv Radiol*. Jul 2021; 32(7): 1044-1051. PMID 33775816
24. Arrigoni F, Napoli A, Bazzocchi A, et al. Magnetic-resonance-guided focused ultrasound treatment of non-spinal osteoid osteoma in children: multicentre experience. *Pediatr Radiol*. Aug 2019; 49(9): 1209-1216. PMID 31129699
25. Napoli A, Anzidei M, De Nunzio C, et al. Real-time magnetic resonance-guided high-intensity focused ultrasound focal therapy for localised prostate cancer: preliminary experience. *Eur Urol*. Feb 2013; 63(2): 395-8. PMID 23159454
26. Geiger D, Napoli A, Conchiglia A, et al. MR-guided focused ultrasound (MRgFUS) ablation for the treatment of nonspinal osteoid osteoma: a prospective multicenter evaluation. *J Bone Joint Surg Am*. May 07 2014; 96(9): 743-51. PMID 24806011
27. Avedian RS, Bitton R, Gold G, et al. Is MR-guided High-intensity Focused Ultrasound a Feasible Treatment Modality for Desmoid Tumors?. *Clin Orthop Relat Res*. Mar 2016; 474(3): 697-704. PMID 26040967
28. Bucknor MD, Rieke V. MRgFUS for desmoid tumors within the thigh: early clinical experiences. *J Ther Ultrasound*. 2017; 5: 4. PMID 28174660
29. Ghanouni P, Dobrotwir A, Bazzocchi A, et al. Magnetic resonance-guided focused ultrasound treatment of extra-abdominal desmoid tumors: a retrospective multicenter study. *Eur Radiol*. Feb 2017; 27(2): 732-740. PMID 27147222
30. Miller WK, Becker KN, Caras AJ, et al. Magnetic resonance-guided focused ultrasound treatment for essential tremor shows sustained efficacy: a meta-analysis. *Neurosurg Rev*. Feb 2022; 45(1): 533-544. PMID 33978922
31. Elias WJ, Lipsman N, Ondo WG, et al. A Randomized Trial of Focused Ultrasound Thalamotomy for Essential Tremor. *N Engl J Med*. Aug 25 2016; 375(8): 730-9. PMID 27557301
32. Giordano M, Caccavella VM, Zaed I, et al. Comparison between deep brain stimulation and magnetic resonance-guided focused ultrasound in the treatment of essential tremor: a

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systematic review and pooled analysis of functional outcomes. J Neurol Neurosurg Psychiatry. Dec 2020; 91(12): 1270-1278. PMID 33055140

33. Schaink A, Li C, Gajic-Veljanoski O, et al. Magnetic Resonance-Guided Focused Ultrasound Neurosurgery for Essential Tremor: A Health Technology Assessment. *Ont Health Technol Assess Ser.* 2018; 18(4): 1-141. PMID 29805721
34. Mohammed N, Patra D, Nanda A. A meta-analysis of outcomes and complications of magnetic resonance-guided focused ultrasound in the treatment of essential tremor. *Neurosurg Focus.* Feb 2018; 44(2): E4. PMID 29385917
35. Elias WJ, Lipsman N, Ondo WG, et al. A Randomized Trial of Focused Ultrasound Thalamotomy for Essential Tremor. *N Engl J Med.* Aug 25 2016; 375(8): 730-9. PMID 27557301
36. Chang JW, Park CK, Lipsman N, et al. A prospective trial of magnetic resonance-guided focused ultrasound thalamotomy for essential tremor: Results at the 2-year follow-up. *Ann Neurol.* Jan 2018; 83(1): 107-114. PMID 29265546
37. Lutz S, Balboni T, Jones J, et al. Palliative radiation therapy for bone metastases: Update of an ASTRO Evidence-Based Guideline. *Pract Radiat Oncol.* Jan 2017; 7(1): 4-12. PMID 27663933
38. National Comprehensive Cancer Network (NCCN). *NCCN Clinical Practice Guidelines in Oncology: Bone Cancer. Version 2.2023*
39. National Comprehensive Cancer Network (NCCN). *NCCN Clinical Practice Guidelines in Oncology: Breast Cancer. Version 4.2023*
40. National Comprehensive Cancer Network (NCCN). *NCCN Clinical Practice Guidelines in Oncology: Central Nervous System Cancers. Version 2.2023.*
41. National Comprehensive Cancer Network (NCCN). *NCCN Clinical Practice Guidelines in Oncology: Prostate Cancer. Version 1.2023*
42. National Institute of Health and Care Excellence (NICE). *Unilateral MRI-guided focused ultrasound thalamotomy for treatment-resistant essential tremor [IPG617]. 2018*
43. Pisters LL, Speiss PE. Cryotherapy and other ablative techniques for the initial treatment of prostate cancer. In *UpToDate Online Journal [serial online].* Waltham, MA: UpToDate. Updated Nov 23, 2022. Literature review through June 2023
44. Stewart EA. Uterine fibroids (leiomyomas): Treatment overview. In *UpToDate Online Journal [serial online].* Waltham, MA: UpToDate. Updated Jul 14, 2023. Literature review current through June 2023
45. Chou KL. Surgical treatment of essential tremor. In *UpToDate Online Journal [serial online].* Waltham, MA: UpToDate. Updated Oct 26, 2022. Literature review current through June 2023
46. Otonkoski S, Sainio T, Mattila S, et al. Magnetic resonance guided high intensity focused ultrasound for uterine fibroids and adenomyosis has no effect on ovarian reserve. *Int J Hyperthermia.* 2023; 40(1): 2154575. PMID 36535925
47. Blue Cross Blue Shield Association Medical Policy Reference Manual. 7.01.109, Magnetic Resonance-Guided Focused Ultrasound. August 2023

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X. POLICY HISTORY

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MP-5.053	9/1/2020 Consensus review. No change to policy statement. Background and Rationale updated. References added.
	5/18/2021 Consensus review. Cross references and references updated. Removed C9747 from INV coding section as this code was deleted effective 1/1/2021.
	11/16/2022 Minor review. Remove examples of uncovered services from the policy statement. Intent remains unchanged. Formatting, coding and references updated.
	8/3/2023 Consensus review. No change to policy statement. Rationale and background updated. References reviewed and updated. Coding reviewed.
	1/19/2024 Administrative update. Clinical benefit added.

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