**Magnetic Resonance (MR) Guided Focused Ultrasound (MRgFUS) and High Intensity Focused Ultrasound (HIFU) Ablation**

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**DESCRIPTION**

Magnetic resonance (MR) guided focused ultrasound (MRgFUS) and high intensity focused ultrasound (HIFU) are proposed as less invasive approaches than surgery for treatment of localized prostate cancer, uterine fibroids, and pain palliation of bone metastases.

MRgFUS is a noninvasive treatment that combines real-time MR-guidance with high-intensity focused ultrasound for the noninvasive thermal ablation of uterine fibroids. The ultrasound beam penetrates through the soft tissues and, using MRI for guidance and monitoring, the beam can be focused on targeted sites. This causes a local increase in temperature in the target tissue, resulting in coagulation necrosis while sparing the surrounding normal structures.
HIFU focuses high-energy ultrasound waves on a single location, which increase the local tissue temperature to cause a discrete locus of coagulative necrosis of approximately 3×3×10 mm.

### MEDICARE ADVANTAGE POLICY CRITERIA

<table>
<thead>
<tr>
<th><strong>CMS Coverage Manuals</strong>*</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Coverage Determinations (NCDs)</strong>*</td>
<td>None</td>
</tr>
</tbody>
</table>
| **Noridian Healthcare Solutions (Noridian) Local Coverage Determinations (LCDs) and Articles (LCAs)*** | For the *treatment of uterine fibroids (Category III CPT codes 0071T and 0072T)*:
✓ Non-Covered Services ([L35008](#))

**Note:** Intracranial MRgFUS for movement disorder (Category III 0398T) may be considered medically necessary for Medicare Advantage.

**Scroll to the “Public Version(s)” section at the bottom of the LCD for links to prior versions if necessary.

| **Medical Policy Manual** | For all other indications, Medicare coverage guidance is not available for magnetic resonance (MR) guided focused ultrasound or high intensity focused ultrasound (HIFU). Therefore, the health plan’s medical policy is applicable.

**Note:** The health plan’s medical policy is consistent with the National Comprehensive Cancer Network (NCCN) recommendations for prostate cancer.

For **all other indications**:
✓ Magnetic Resonance (MR) Guided Focused Ultrasound (MRgFUS) and High Intensity Focused Ultrasound (HIFU) Ablation, Surgery, [Policy No. 139](#) (see “NOTE” below)

**NOTE:** If a procedure or device lacks scientific evidence regarding safety and efficacy because it is investigational or experimental, the service is noncovered as not reasonable and necessary to treat illness or injury. ([Medicare IOM Pub. No. 100-04, Ch. 23, §30 A](#)). According to Title XVIII of the Social Security Act, §1862(a)(1)(A), only medically reasonable and necessary services are covered by Medicare. In the absence of a NCD, LCD, or other coverage guideline, CMS guidelines allow a Medicare Advantage Organization (MAO) to make coverage determinations, applying an **objective, evidence-based process, based on authoritative evidence.** ([Medicare IOM Pub. No. 100-16, Ch. 4, §90.5](#)). The Medicare Advantage Medical Policy - Medicine Policy No. M-149 - provides further details regarding the plan’s evidence-assessment process (see Cross References).
REQUIRED DOCUMENTATION

The information below must be submitted for review to determine whether policy criteria are met. If any of these items are not submitted, it could impact our review and decision outcome:

- History and Physical
- Treatment plan including treatment area
- For prostate cancer treatment, clinical documentation must also demonstrate results from transrectal ultrasound guided (TRUS) biopsy.

REGULATORY STATUS

Several devices have received U.S. Food and Drug Administration (FDA) approval via the De Novo and Premarket Application (PMA) processes:

- The ExAblate® 2000 System (InSightec, Inc.) was approved for two indications: “ablation of uterine fibroid tissue in pre- or peri-menopausal women with symptomatic uterine fibroids who desire a uterine sparing procedure,” and for palliation of pain associated with tumors metastatic to bone.
- The ExAblate® 2100 System also received approval through the PMA process. Approval remains limited to treatment of patients with metastatic bone cancer who failed or are not candidates for radiation therapy; or, in patient with symptomatic uterine fibroids with a uterine size of less than 24 weeks and those who have completed child bearing.
- In October 2012, the FDA approved the ExAblate® System, Model 2000/2100/2100 VI for pain palliation via the PMA process. For pain palliation, the intended use of the device is in adult patients with metastatic bone cancer who failed or are not candidates for radiation therapy. The device was evaluated through an expedited review process, but the FDA required a post-approval study with 70 patients to evaluate the effectiveness of the system under actual clinical conditions.
- The Sonablate® 450 (SonaCare Medical) is the first high intensity ultrasound system for prostate tissue ablation to receive FDA approval, and therefore underwent the de novo application process, obtaining clearance in 2015.
- Shortly thereafter, Ablatherm Integrated Imaging® (EDAP TMS) received PMA approval.

CROSS REFERENCES

Investigational (Experimental) Services and New and Emerging Medical Technologies and Procedures, Medicine, Policy No. M-149

REFERENCES
CODES

**NOTE:** There are no specific CPT codes for the use of magnetic resonance–guided high-intensity ultrasound ablation in metastatic bone cancer. An unlisted code would be used based on the anatomic location of the metastasis being treated (eg, 23929 for the clavicle) or perhaps one of the radiation oncology unlisted codes (eg, 77299 or 77499).

<table>
<thead>
<tr>
<th>Codes</th>
<th>Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>CPT</td>
<td>0071T</td>
<td>Focused ultrasound ablation of uterine leiomyomata, including MR guidance; total leiomyomata volume of less than 200 cc of tissue.</td>
</tr>
<tr>
<td></td>
<td>0072T</td>
<td>; total leiomyomata volume greater or equal to 200 cc of tissue</td>
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<tr>
<td></td>
<td>0398T</td>
<td>Magnetic resonance image guided high intensity focused ultrasound (MRgFUS), stereotactic ablation lesion, intracranial for movement disorder including stereotactic navigation and frame placement when performed</td>
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<tr>
<td></td>
<td>23929</td>
<td>Unlisted procedure, shoulder</td>
</tr>
<tr>
<td></td>
<td>58578</td>
<td>Unlisted laparoscopy procedure, uterus</td>
</tr>
<tr>
<td></td>
<td>58579</td>
<td>Unlisted hysteroscopy procedure, uterus</td>
</tr>
<tr>
<td>HCPCS</td>
<td>C9734</td>
<td>Focused ultrasound ablation/therapeutic intervention, other than uterine leiomyomata, with or without magnetic resonance (MR) guidance</td>
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<tr>
<td></td>
<td>C9747</td>
<td>Ablation of prostate, transrectal, high intensity focused ultrasound (HIFU), including imaging guidance</td>
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</tbody>
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*IMPORTANT NOTE:* Medicare Advantage medical policies use the most current Medicare references available at the time the policy was developed. Links to Medicare references will take viewers to external websites outside of the health plan’s web control as these sites are not maintained by the health plan.