



# MEDICAL POLICY STATEMENT

## Indiana Medicaid

Policy Name & Number	Date Effective
Microwave Ablation of Tumors-IN MCD-MM-1482	05/01/2026
Policy Type	
MEDICAL	

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Medical Policy Statements prepared by CareSource and its affiliates do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage) for the service(s) referenced in the Medical Policy Statement. If there is a conflict between the Medical Policy Statement and the plan contract (i.e., Evidence of Coverage), then the plan contract (i.e., Evidence of Coverage) will be the controlling document used to make the determination. According to the rules of Mental Health Parity Addiction Equity Act (MHPAEA), coverage for the diagnosis and treatment of a behavioral health disorder will not be subject to any limitations that are less favorable than the limitations that apply to medical conditions as covered under this policy.

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A. Subject

**Microwave Ablation of Tumors**

B. Background

Microwave ablation (MWA), a type of thermo-ablation, uses microwave energy to cause thermal coagulation and tissue necrosis at a specific location. When a tumor is not amenable to resection or a patient is ineligible for surgery, MWA may be an appropriate alternative definitive treatment. This procedure can be done percutaneously, using minimally invasive surgical techniques, or during open surgery, and involves placement of one or more probes directly into the tumor's location where microwave energy can be directly applied, causing destruction of the tumor and limited surrounding tissues.

Microwave ablation does not spare vessels.

Hepatocellular carcinoma is the most common type of primary liver cancer. Treatment options include surgical excision, hepatic artery infusion chemotherapy, trans-arterial bland or chemoembolization, selective interstitial radiotherapy (Yttrium 90 microspheres), percutaneous ethanol injection, cryoablation, and thermo-ablation. Liver transplantation for curative intent may be appropriate for some patients. Microwave ablation, a type of thermo-ablation, has demonstrated comparable results to other treatment options for small tumors.

Liver metastases are a common manifestation of many primary cancers. The number, location, size, and patient's general health influence the choice of treatment for liver metastases. While surgical resection with curative intent is ideal, this may not be possible in all patients. Non-surgical ablative techniques may be used for both curative and palliative intent, including systemic chemotherapy, targeted therapy, immunotherapy, external beam radiotherapy, cryoablation, thermo-ablation, arterial embolization techniques, and selective internal radiation therapy.

Lung cancer is one of the most common types of cancer as well as a common site of metastases. Since symptoms often do not appear until advanced disease, prognosis can be poor. Common treatments for primary or metastatic cancer in the lung include surgery, chemotherapy, radiotherapy, photodynamic therapy, thermal ablation, immunotherapy, and biological therapy. Treatment selection is based on type, size, position and stage of cancer, and the patient's overall health.

Small renal masses (SRMs) less than 4cm in size suspicious for clinical stage T1a renal cell carcinoma are the most common type of kidney tumor encountered. SRMs are often found incidentally with imaging for unrelated indications. Thermo-ablative techniques like MWA are gaining greater acceptance in clinical practice due to favorable outcomes observed in initial studies, low incidence of complications, lower cost, and ability to treat patients in the outpatient setting. Potential benefits of these techniques should be balanced against the lack of long-term follow-up data. For larger renal masses (T1b), several ablative procedures may be required to achieve the same results as other treatment techniques.

The MEDICAL Policy Statement detailed above has received due consideration as defined in the MEDICAL Policy Statement Policy and is approved.

### C. Definitions

- **Tumor Ablation** – Direct application of energy to eradicate or destroy focal tumors. The method of ablation is dependent on the characteristics of the lesion and risk mitigation.
  - **Microwave Ablation (MWA)** – Delivery of high-frequency microwave energy to rapidly agitate water molecules in the target tissue; the energy is converted to heat, which causes tissue necrosis.

### D. Policy

- I. Microwave ablation for tumor treatment using an FDA-approved device is considered medically necessary when **ONE** of the following indications are met:
  - A. Member has primary or metastatic hepatic (liver) tumor and **ALL** the following:
    1. The tumor is unresectable due to location of lesion(s), OR the member has comorbid condition(s) that are contraindicative to surgery.
    2. Tumor is  $\leq 5$ cm in size, OR there are no more than 3 nodules, all of which are  $\leq 3$ cm in size.
    3. Microwave ablation may be used alone or in conjunction with open or minimally invasive resection of other liver tumors. Curative resection of all disease must be the stated goal of therapy.
  - B. Member has primary or metastatic lung tumor, and **ALL** the following:
    1. The tumor is unresectable due to location of lesion(s), OR the member has comorbid condition(s) that are contraindicative to surgery.
    2. Single tumor is  $\leq 3$ cm in size.
  - C. Member has T1 renal cell carcinoma and **ONE** of the following:
    1. Renal mass is  $\leq 4$ cm in size and the member is not eligible for surgery or declines surgery.
    2. Renal mass is  $> 4$ cm but  $\leq 7$ cm and the member is not eligible for surgery.
- II. Microwave ablation is not covered for any other indication, including (but not limited to), the following:
  - A. Microwave ablation for any other tumor type is considered experimental and investigational due to a lack of clinical evidence on its efficacy.
  - B. Microwave ablation for tumors larger than the above indications is considered experimental and investigational due to a lack of clinical evidence on its efficacy compared to other treatment modalities.

### E. Conditions of Coverage

NA

### F. Related Policies/Rules

NA

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### G. Review/Revision History

DATE		ACTION
<b>Date Issued</b>	02/15/2023	
<b>Date Revised</b>	09/27/2023 08/28/2024 06/18/2025 02/11/2026	Annual review: updated references. Approved at Committee. Review: updated references, approved at Committee. Review: updated references, approved at Committee. Review: expanded background, added renal carcinoma indications, approved at Committee.
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Independent medical review – September 2022

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