

02-99221-18

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Subject: Microwave Tumor Ablation Other Than Liver Tumors

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DESCRIPTION:

Microwave ablation (MWA) is a technique to destroy tumors and soft tissue using microwave energy to create thermal coagulation and localized tissue necrosis. Microwave ablation is used to treat tumors not amenable to resection and to treat individuals ineligible for surgery due to age, comorbidities, or poor general health. Microwave ablation may be performed as an open procedure, laparoscopically, percutaneously, or thoracoscopically under image guidance (e.g., ultrasound, computed tomography, magnetic resonance imaging) with sedation, or local or general anesthesia.

Microwave ablation systems are approved by the Food and Drug Administration (FDA) through the 510(k) process as a Class II electrosurgical cutting and coagulation device and accessories (e.g., NEUWAVE, Solero, Certus, Emprint, Acculis).

Summary and Analysis of Evidence: Yuan et al (2019) conducted a meta-analysis assessing clinical outcomes of radiofrequency ablation (RFA) and microwave ablation (MWA) for treating lung cancer. Fifty-three studies were included, and up to 3,432 patients were pooled. The estimated 1-, 2-, 3-, 4-, and 5-year overall survival (OS) rates were higher for RFA-treated patients compared with those treated by MWA. The median OS, median progression-free survival (PFS), median local tumor PFS, complete ablation rate, and adverse events did not differ significantly. Subgroup analyses by tumor type showed that the median OS for RFA-treated patients with pulmonary metastases was higher than that of the MWA-treated patients. The authors concluded that thermal ablation, both RFA and MWA, is an effective approach for treating lung cancer with low risk of adverse events. RFA is associated with longer survival than MWA, and patients with pulmonary metastases showed better survival after RFA compared with MWA-treated patients.

Nelson and colleagues (2019) concluded the microwave ablation of primary and secondary lung malignancies is a reasonable therapeutic approach for select patients. Estimates of local failure after

treatment are highly variable, with newer reports and smaller tumors having more favorable treatment efficacy rates.

Microwave ablation is becoming increasingly popular for ablation of liver and lung tumors, but data for use for renal cell carcinoma (RCC) and other indications are limited.

POSITION STATEMENT:

Note: For microwave ablation liver tumor, refer to Radiofrequency Ablation of Liver Tumors, 02-40000-23.

Microwave ablation of primary or metastatic lung tumors **meets the definition of medical necessity** for the following:

- The tumor is unresectable due to location of lesion and/or comorbid conditions (e.g., diabetes , hypertension, obesity, asthma, chronic obstructive pulmonary disease (COPD))
- A single tumor of ≤ 3 cm.

Microwave ablation for all other indications is considered **experimental or investigational**. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

BILLING/CODING INFORMATION:

There is no specific code for microwave tumor ablation.

LOINC Codes:

The following information may be required documentation to support medical necessity: Physician history and physical, initial assessment, procedure note, visit note.

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
Physician Initial Assessment	18736-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
Physician procedure note	11505-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.

Attending physician visit note	18733-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
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REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: No National Coverage Determination (NCD) and/or Local Coverage Determination (LCD) were found at the time of the last guideline reviewed date.

If this Medical Coverage Guideline contains a step therapy requirement, in compliance with Florida law 627.42393, members or providers may request a step therapy protocol exemption to this requirement if based on medical necessity. The process for requesting a protocol exemption can be found at [Coverage Protocol Exemption Request](#).

DEFINITIONS:

RELATED GUIDELINES:

[Radiofrequency Ablation of Liver Tumors, 02-40000-23](#)

[Radiofrequency Ablation of Solid Tumors Other Than Liver Tumors, 02-99221-13](#)

OTHER:

Note: The use of specific product names is illustrative only. It is not intended to be a recommendation of one product over another, and is not intended to represent a complete listing of all products available.

Microwave coagulation therapy

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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 12/4/25.

GUIDELINE UPDATE INFORMATION:

12/15/22	New Medical Coverage Guideline.
08/21/23	Update to Program Exceptions section.

01/01/24	Position statements maintained.
12/15/24	Review; no change in position statement. Updated references.
12/15/25	Review; no change in position statement. Updated references.