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Northwest Region Utilization Review UR 78: Radiofrequency Ablation of Thyroid Nodules Medical Necessity Criteria

Department: Non-Behavioral Health	Number: UR 78
Section: KPNW Region	Effective: 10/25
Applies to: KPNW Region	Reviewed: 10/25
Review Responsibility: Alistair Bahar, MD, Endocrinology	Revised: 10/26

BACKGROUND

CLINICAL BACKGROUND

Radiofrequency ablation (RFA) of a thyroid nodule is a minimally invasive treatment wherein a needle electrode is inserted into a thyroid nodule (typically via ultrasound guidance) and heat generated at the tip of the needle destroys nodule tissue, reducing the size of the nodule.

DEFINITIONS

Autonomously functioning thyroid nodule (AFTN): An autonomously functioning thyroid nodule (AFTN) is a thyroid nodule that produces thyroid hormone autonomously and is hyperfunctioning ("hot"). It has greater radionuclide uptake on thyroid scintigraphy than surrounding thyroid tissue.

POLICY AND CRITERIA

Coverage guidance: Radiofrequency ablation of thyroid nodules may be excluded from coverage. Check CM for exclusions or limitations.

Source	Policy
For Medicare Members	
CMS Coverage Manuals	NA
National Coverage Determinations (NCD)	NA
Local Coverage Determinations (LCD)	NA
Local Coverage Article	NA
Kaiser Permanente Medical Policy for Medicare Members	UR 78 applies. Due to the absence of a NCD or LCD, Kaiser Permanente has chosen to use their own Clinical Review Criteria, "Radiofrequency Ablation for Thyroid Nodules" for medical necessity determinations. Use the criteria below.
For Medicaid Members	
OR Medicaid	UR 78 does not apply
WA Medicaid	UR 78 does not apply
Commercial and Self-Funded Members	
OR Commercial	UR 78 applies
WA Commercial	UR 78 applies
Self-funded plans	UR 78 applies

CRITERIA

Radiofrequency ablation (RFA) of benign thyroid nodules is considered medically necessary when **ALL of the following** are met:

A. The nodule is confirmed as benign using fine needle aspiration (FNA) in the past 24 months:

    a. One benign FNA is required for an autonomously functioning thyroid nodule (AFTN)
    b. One benign FNA is required for a spongiform nodule
    c. Two benign FNAs are required for all other nodules

B. Presence of **ONE or more** of the following due to a dominant thyroid nodule*:
    a. Thyroid compressing trachea, esophagus, or great vessels
    b. Compressive symptoms (e.g., dysphagia or pressure sensation)

    *NOTE: This criterion does not apply to autonomously functioning thyroid nodules.

C. Prior ablation has not been performed in the previous 12 months

CONTRAINDICATIONS TO BE DETERMINED PRIOR TO RADIOFREQUENCY ABLATION BY THE TREATING PHYSICIAN

1. Nodules with Bethesda IV (i.e., suspicious for follicular neoplasm) FNA results are not candidates for RFA

RATIONALE

Summary of evidence from MCG[1]:

"For thyroid nodules, evidence demonstrates a net benefit, but of less than moderate certainty, and may consist of a consensus opinion of experts, case studies, and common standard care. A systematic review and meta-analysis evaluation the efficacy and safety of thermal ablation for autonomously functioning thyroid nodules identified 10 studies (243 patients) of radiofrequency ablation and found that 69.9% of patients had normalization of their TSH. The results were limited by lack of randomized trials, the small number of included patients, and heterogeneity among the included studies.[2] An open-label randomized trial of 58 patients with solitary nonfunctioning thyroid nodules with associated compressive symptoms compared treatment with either radiofrequency or laser ablation and found, at 12-month follow-up, that both techniques were associated with decreased nodule volume and improved compressive symptoms compared with baseline; radiofrequency ablation was associated with a greater decrease in nodule volume compared with laser ablation.[3] A multicenter retrospective study of 406 patients with benign thyroid nodules treated with ablation (radiofrequency or laser) found, at 5 years post procedure, that both procedures reduced nodule volume and that radiofrequency ablation was associated with a higher efficacy rate, decreased regrowth rate, and decreased retreatment rate compared with laser ablation.[4] A retrospective study of 200 patients with benign thyroid nodules found, at 12-month follow-up, fewer complications with radiofrequency ablation as compared with surgical resection (1% vs 6%, respectively), but no significant difference in recurrence; the authors recommended future prospective studies to further evaluate this treatment.[5] An international multidisciplinary consensus statement notes that ablation procedures (including radiofrequency ablation) may be first-line treatment options for patients with benign thyroid nodules causing compressive or cosmetic symptoms.[6] A specialty society guideline states that there is insufficient evidence to determine the benefits and risks of radiofrequency ablation for toxic adenoma or toxic multinodular goiter.[7]

Additionally, the 2020 European Thyroid Association's clinical practice guideline on the use of image-guided ablation in benign thyroid nodules recommends image-guided ablation be considered as a cost- and risk-effective alternative option to surgery or observation alone in adult patients with benign thyroid nodules that cause pressure symptoms and who decline surgery.[8]

CODES

CPT Code	Description

REFERENCES

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