Thyroid Surgeries (Thyroidectomy & Lobectomy)



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Medicare Advantage Medical Coverage Policy

Table of Contents

Related Medical/Pharmacy Coverage Policies
Description
Coverage Limitations
Coding Information
Appendix

Related CMS Documents
Coverage Determination
Summary of Evidence
References
Change Summary

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Related Medicare Advantage Medical/Pharmacy Coverage Policies

<u>Genetic Testing for Hereditary Cancer</u> <u>Molecular Markers in Fine Needle Aspirates of Thyroid Nodules</u> Radiofrequency Tumor Ablation

Related CMS Documents

Please refer to CMS Medicare Coverage Database for the most current applicable CMS National Coverage Determination (NCD)/Local Coverage Article (LCA). Refer to CMS website for the most current applicable CMS Online Manual System (IOMs) and Transmittals.

There are no NCDs/LCDs/LCAs for thyroid surgeries (thyroidectomy & lobectomy).

Description

The thyroid is a butterfly-shaped gland located in the neck that produces hormones involved in the regulation of basal metabolic functions such as blood pressure, body temperature, calcium levels in the body and heart rate. Thyroid surgery can be performed for a number of benign and malignant conditions including, but not limited to:

- **Graves' disease** is an autoimmune disease that may consist of a goiter, hyperthyroidism, lower leg swelling and/or thyroid eye disease.²⁷
- **High risk thyroid nodules or malignancy** (also called tumors or growths) are caused by abnormal growth of thyroid gland cells. Thyroid nodules may be benign (noncancerous) or malignant (cancerous).¹³
- Toxic multinodular goiter or toxic adenoma are caused by an overproduction of thyroid hormone.

Evaluation

Prior to initiating treatment, baseline bloodwork testing should be completed which may include the measurement of thyroid hormone (thyroxine or T4) and thyroid-stimulating hormone (TSH) in the blood to determine how the thyroid is functioning. Since blood tests alone cannot determine thyroid disease, additional testing may include, but are not limited to:

- Thyroid ultrasound uses high frequency sound waves to obtain a picture of the thyroid and can determine characteristics or diseases in the thyroid gland.³⁰ Ultrasound can also be used to accurately guide a needle directly into a nodule when a fine needle biopsy is warranted. Once the initial evaluation is completed, thyroid ultrasound can be used to monitor thyroid nodules that do not require surgery to determine if they are growing or shrinking over time.
- **Fine needle aspiration biopsy (FNA or FNAB)** involves the insertion of a thin needle into the nodule to withdraw cells for microscopic examination by a pathologist. Ordinarily, samples will be taken from various parts of the nodule to provide the best chance of finding cancerous cells, if they are present. The report of a thyroid FNA will usually indicate that the nodule is in one of six categories according to the Bethesda system diagnostic categories for reporting thyroid cytopathology.²⁰

Laboratory examination of cells in thyroid nodules acquired through FNA has been proposed to assist in exploring the possibility of thyroid cancer. These tests are used to detect molecular markers associated with thyroid cancer and are performed when cytopathology cannot determine if the nodule is malignant or benign.

Surgical Treatment

Thyroid nodules found to be benign by initial FNA or too small to biopsy are monitored via physical exam and repeated ultrasound or FNA. Surgery may still be recommended even for a nodule that is benign if it causes compression or other symptoms (choking, dysphagia, dyspnea, hoarseness).

Thyroid nodules that are malignant, or that are highly suspicious of cancer, typically require surgery. The extent of the surgery performed depends on many variables; some include cancer type, size and location of nodule(s), symptoms, individual's age and/or preference. Thyroid surgeries include, but are not limited to:

- Lobectomy (or hemi-thyroidectomy) Procedure where one lobe (one half) of the thyroid is removed.
- Thyroidectomy (total or near-total) Procedure where all or most of the thyroid tissue is removed.

Coverage Determination

ICare follows the Medicare requirements that only allow coverage and payment for services that are reasonable and necessary for the diagnosis and treatment of illness or injury or to improve the functioning of a malformed body member except as specifically allowed by Medicare.

In interpreting or supplementing the criteria above and in order to determine medical necessity consistently, ICare may consider the criteria contained in the following:

Graves' Disease

Thyroid lobectomy or thyroidectomy for Graves' disease will be considered medically reasonable and necessary when **at least one** of the following are met:

- Enlarged goiter with compressive/obstructive symptoms (eg, dysphagia, dyspnea, hoarseness)^{6,15,27,33};
 OR
- Goiter volume of 80 grams or greater^{6,15,27,33}; **OR**
- Individual with coexisting hyperparathyroidism requiring surgery^{6,15,33}; **OR**
- Intolerance, inadequate response, contraindication to antithyroid medications with prior adverse reactions (agranulocytosis or hepatitis) or contradiction to radioactive iodine therapy (pregnancy, lactation, sole caregiver for an infant or young child or an incontinent older adult)^{6,15,27,33,39}; OR
- Malignancy (primary or secondary) of thyroid (<u>Bethesda VI</u>)^{6,15,17,22}; **OR**
- Moderate to severe <u>thyroid eye disease</u> (orbitopathy)^{6,15,27,33,38}; OR
- Pregnant or lactating or plan on becoming pregnant in the next year^{6,15,27,33}; OR
- Thyroid nodule **AND** at least one of the following¹⁵:
 - Multiple benign nodules; OR
 - Nodule 4 cm or more in size⁶; OR
 - o Nonfunctioning or hypofunctioning nodule on iodine-123 or technetium-99m scan⁶; **OR**
 - Suspicion for malignancy or indeterminate cytology (Bethesda III V)6,17,22,33

High-Risk Thyroid Nodule or Malignancy

Thyroid lobectomy or thyroidectomy for high-risk thyroid nodule will be considered medically reasonable and necessary when **at least one** of the following are met:

- 18 years of age or younger AND at least one of the following 15:
 - Hyperfunctioning nodule¹⁰; OR
 - Indeterminate cytology (<u>Bethesda III and IV</u>)¹⁰; OR
 - Nodule 4 cm or larger¹⁰; OR
- Amiodarone-induced thyrotoxicosis that fails to respond to medical therapy^{3,15}; **OR**
- <u>First-degree relative</u> with thyroid cancer or multiple endocrine neoplasia type 2 (MEN2) syndrome^{5,15,17,19}: **OR**
- Growth of nodule within 1 year by 2 mm or more **AND at least one** of the following^{3,15}:
 - o Increase in size by 20% or more on 2 or more dimensions on imaging; **OR**
 - Nodule volume increased by 50% or more; OR
- Malignancy (primary or secondary) of thyroid (<u>Bethesda VI</u>)^{6,15,17,22}; **OR**
- Pathogenic or likely pathogenic variant identified in the RET gene or in other high risk genes (eg, BRAF V600E)^{15,17,18}; OR
- Personal history of:
 - Childhood head and neck radiation therapy^{5,15,22}; OR
 - Thyroid malignancy treated with lobectomy^{15,28}; OR
- Personal history of diagnosis associated with thyroid cancer, including at least one of the following:
 - Familial adenomatous polyposis^{5,15,22}; OR
 - Carney complex^{5,15}; OR
 - Cowden syndrome^{5,15,17,22}; OR
 - Other diagnosis associated with increased thyroid cancer risk (eg, MEN2 or Werner syndrome/progeria)^{5,22}; OR
- PET scan demonstrating fluorodeoxyglucose (FDG) avidity^{3,5,15,17}; OR
- Thyroid compressing trachea, esophagus or great vessels^{5,15}; OR

• Thyroid nodule suspicious for malignancy (eg, based on imaging) and biopsy not appropriate or results indeterminant^{5,15}

Toxic Multinodular Goiter or Toxic Adenoma

Thyroid lobectomy or thyroidectomy for toxic multinodular goiter (MNG) or toxic adenoma will be considered medically reasonable and necessary when at least one of the following are met:

- Enlarged goiter with compressive/obstructive symptoms (eg, dysphagia, dyspnea, hoarseness)^{6,15,27,33,39};
- Goiter volume of 80 grams or greater^{6,15,27,33,39}; **OR**
- Individual with coexisting hyperparathyroidism requiring surgery^{6,15,33,39}; OR
- Intolerance, inadequate response, contraindication to antithyroid medications with prior adverse reactions (agranulocytosis or hepatitis) or contradiction to radioactive iodine therapy (pregnancy, lactation, sole caregiver for an infant or young child or an incontinent older adult)^{6,15,27,33,39}; OR
- Malignancy (primary or secondary) of thyroid (<u>Bethesda VI</u>)^{6,15,17,22}; **OR**
- Pregnant or lactating or plan on becoming pregnant in the next year^{6,15,27,33}; OR
- Substernal or retrosternal extension of thyroid^{6,15,37}; OR
- Thyroid nodule AND at least one of the following¹⁵:
 - Nodule 4 cm or more in size⁶; OR
 - Nonfunctioning or hypofunctioning nodule^{6,39}; OR
 - Rapid correction of thyrotoxic state required^{6,39}
 - Suspicion for malignancy or indeterminate cytology (Bethesda III V)6,17,22,33

The use of the criteria above provides clinical benefits highly likely to outweigh any clinical harms (eg, adverse effects including, but not limited to hypoparathyroidism^{23,33,36}, keloid formation at the site of incision³³, recurrent laryngeal nerve (RLN) injury which can result in vocal cord paralysis^{23,33,36}, swallowing impairment³⁶ or wound infection³³). Services that do not meet the criteria above are not medically reasonable and necessary and may result in unnecessary exposure to potential complications. Medically unnecessary services carry risks of adverse outcomes and may interfere with the pursuit of other treatments which have demonstrated efficacy.

Coverage Limitations

<u>US Government Publishing Office. Electronic code of federal regulations: part 411 – 42 CFR § 411.15 - Particular services excluded from coverage</u>

Coding Information

Any codes listed on this policy are for informational purposes only. Do not rely on the accuracy and inclusion of specific codes. Inclusion of a code does not guarantee coverage and/or reimbursement for a service or procedure.

CPT® Code(s)	Description	Comments				
60210	Partial thyroid lobectomy, unilateral; with or without isthmusectomy					
60212	Partial thyroid lobectomy, unilateral; with contralateral subtotal lobectomy, including isthmusectomy					
60220	Total thyroid lobectomy, unilateral; with or without isthmusectomy					
60225	Total thyroid lobectomy, unilateral; with contralateral subtotal lobectomy, including isthmusectomy					
60240	Thyroidectomy, total or complete					
60252	Thyroidectomy, total or subtotal for malignancy; with limited neck dissection					
60254	Thyroidectomy, total or subtotal for malignancy; with radical neck dissection					
60260	Thyroidectomy, removal of all remaining thyroid tissue following previous removal of a portion of thyroid					
60270	Thyroidectomy, including substernal thyroid; sternal split or transthoracic approach					
60271	Thyroidectomy, including substernal thyroid; cervical approach					
CPT®						
Category III Code(s)	Description	Comments				
No code(s) ic	No code(s) identified					
HCPCS Code(s)	Description	Comments				
C7555	Thyroidectomy, total or complete with parathyroid autotransplantation					

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Thyroid Surgeries (Thyroidectomy & Lobectomy)

Page: 9 of 11

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Appendix

Appendix A

Bethesda System Diagnostic Categories for Reporting Thyroid Cytopathology²⁰

Bethesda Class	Diagnostic Category	Description
I	Nondiagnostic	Inadequate sample (eg, insufficient number of follicular cells, specimen obscured by blood, cyst fluid only). Typically repeat the FNA biopsy under ultrasound guidance.
II	Benign	Cells can be categorized as normal thyroid tissue, nodules from adenomatous or multinodular goiters, chronic lymphocytic (Hashimoto's) thyroiditis or subacute granulomatous thyroiditis.
III	Atypia of undetermined significance (AUS)	This category includes lesions that are not convincingly benign but do not have either definitive features of a follicular neoplasm and are not highly suspicious of malignancy.
IV	Follicular neoplasm	The category of neoplasm includes microfollicular or cellular adenomas. This pattern may also be referred to as cellular or indeterminate.
	Follicular neoplasm- oncocytic follicular neoplasm	Follicular neoplasm with oncocytic features (previously called Hürthle cell neoplasm) may represent benign adenomas or oncocytic carcinoma.
V	Suspicious for malignancy	This category includes lesions with some features suggestive of, but not definitive for, thyroid cancer.
VI	Malignant	The malignant category includes papillary cancer, medullary cancer, thyroid lymphoma, anaplastic cancer, cancer metastatic to the thyroid, and lymphoma. It does not include follicular or oncocytic thyroid cancer.

Appendix B

Thyroid Eye Disease Severity Assessment³⁸

Grade	Lid	Soft Tissues	Proptosis	Diplopia	Corneal	Optic Nerve
	Retraction				Exposure	Status
Mild	< 2 mm	Mild	< 3 mm	Transient or	Absent	Normal
		Involvement		Absent		
Moderate-	≥ 2 mm	Moderate or	≥ 3 mm	Inconstant	Mild	Normal
to-severe		severe		(moderate) or		
		involvement		constant (severe)		
Sight	-	-	-	-	Severe	Compression
Threatening						

Appendix C Family Relationships

Thyroid Surgeries (Thyroidectomy & Lobectomy)

Page: 11 of 11

Degree of Relationship	Definition
First-degree	Child, full-sibling, parent
Second-degree	Aunt, uncle, grandchild, grandparent, nephew, niece, half-sibling
Third-degree	First cousin, great aunt, great-uncle, great-grandchild, great-grandparent, half- aunt, half-uncle

Change Summary

01/01/2024 New Policy. 09/24/2024 Annual Review, Coverage Change.