# Evolent Clinical Guideline 2039 for Neck Computed Tomography (CT)

| **Guideline Number:** Evolent_CG_2039 | **Applicable Codes** | |
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| ***"Evolent" refers to Evolent Health LLC and Evolent Specialty Services, Inc.*** <br>  | | |
| **Original Date:** September 1997 | **Last Revised Date:** July 2025 | **Implementation Date:** January 2026 |

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# STATEMENT

## General Information

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*
- *The guideline criteria in the following sections were developed utilizing evidence-based and peer-reviewed resources from medical publications and societal organization guidelines as well as from widely accepted standard of care, best practice recommendations.*

# INDICATIONS

## Suspected Neoplasm or Malignancy

- Suspicious lesion that is indeterminate or abnormal on prior imaging and requires further evaluation [1,2]
- Suspicious lesion(s) seen on physical exam and/or endoscopy in the mouth or throat (Such as a mass or ulceration in the oral cavity or pharynx) [3]
- Known or suspected salivary gland neoplasm (parotid, submandibular, and/or sublingual gland) after prior indeterminate or abnormal imaging (such as ultrasound)

  **NOTE**: Ultrasound is the initial imaging study of a salivary gland mass. Fine needle aspiration (FNA) is usually the next step in the evaluation of a possible salivary gland malignancy and advanced imaging is not typically needed prior to biopsy
- Suspected or known malignancy of the head and/or neck with any **ONE** of the following [4]:
  - For initial staging, restaging, or suspected recurrence of head and neck cancer
  - For surgical or radiation planning
  - 3-4 months after end of treatment in patients with locoregionally advanced disease or with altered anatomy
  - Annually when specified that the area of original disease is difficult to follow with direct visualization and/or endoscopy (such as nasopharynx, base of tongue, hypopharynx, pyriform sinus)

**NOTE**: CT/MRI of Sinus/Face, Orbit, or PET may also be indicated

### *Neck Mass or Lymphadenopathy*

- Advanced Imaging of a neck mass/lymphadenopathy is indicated with any **ONE** of the following:
  - Indeterminate or abnormal prior imaging (such as ultrasound, non-neck CT/MRI) [1,2]
  - Neck mass/lymphadenopathy present in an anatomic area that is not evaluated adequately by ultrasound (such as oral cavity, oropharynx, behind (deep to) the mandible or behind (deep to) the airway/pharynx)
  - Increased risk for malignancy with any **ONE** (or more) of the following findings [5]:
    - Fixation to adjacent tissues
    - Firm consistency
    - Size > 1.5 cm
    - Ulceration of overlying skin
    - Mass present for ≥ two weeks (or uncertain duration) without significant fluctuation and not considered to be from an infectious cause
    - History of prior cancer
    - Failed 2 weeks (or more) treatment for suspected infectious etiology

### *Vocal Fold (Cord) Lesions*

- Vocal cord lesion(s) that is suspicious for malignancy (such as ulceration, hyperkeratosis (leukoplakia))
- Vocal cord immobility (can be an indicator of malignancy in the neck and/or chest) [6]

**NOTE**: Chest CT is also indicated in the evaluation of the vocal cord immobility

## Follow-up of Known Malignancy [4]

For malignancies not listed, Neck CT is only indicated when there are signs or symptoms of neck involvement (such as palpable masses/lymph nodes or dysphagia)

### *Initial Staging*

- Neck CT is indicated for initial diagnostic workup for the following cancer types:
  - Head and neck cancers
  - Thyroid cancer
  - B cell lymphomas (follicular lymphoma, diffuse large B cell lymphoma, Burkitt lymphoma, B-lymphoblastic lymphoma, post-transplant lymphoproliferative disorders)
  - ALL

- AML
- Hodgkin lymphoma (pediatric and adult)
- Pediatric aggressive mature B cell lymphomas (Burkitt lymphoma, Diffuse large B cell lymphoma, primary mediastinal large B cell lymphoma)
- Occult primary

## *Restaging*

- Neck CT is indicated during active treatment (every 2-3 cycles of chemotherapy or immunotherapy, following radiation and/or after surgery) for the following malignancies:
  - Head and neck cancers (and after radiation treatment)
  - Thyroid cancer (and after surgery and/or if any concern for recurrence or progression)
  - ALL
  - AML
  - B Cell lymphomas (follicular lymphoma, diffuse large B cell lymphoma, Burkitt lymphoma, B-lymphoblastic lymphoma, post-transplant lymphoproliferative disorders)
  - Hodgkin lymphoma (pediatric and adult)
  - Pediatric aggressive mature B cell lymphomas (Burkitt lymphoma, Diffuse large B cell lymphoma, primary mediastinal large B cell lymphoma)
  - Occult primary

## *Surveillance*

- Neck CT is appropriate during surveillance for the following malignancies at the intervals defined below:
  - ALL if lymphomatous features present, every 3-6 months for 2 years
  - AML if extramedullary disease present, every 3-6 months for 2 years
  - B Cell lymphomas (pediatric and adult) every 6 months for 2 years then annually as clinically indicated
  - Head and Neck cancer annually when specified that the area of original disease is difficult to follow on direct visualization (surveillance is typically with exam/scope rather than imaging)
  - Hodgkin lymphoma (pediatric and adult) every 3-6 months for 2 years
  - Occult primary every 3-6 months for 2 years, every 6-12 months for 3 years then annually

**Note:** There would need to be a sign or symptom of recurrence to consider Neck CT when the timeframe above for routine surveillance has elapsed OR when a cancer is not listed above

because neck CT is not routinely a part of surveillance for that cancer in an asymptomatic patient.

## Thyroid Gland

- Initial staging and restaging of known thyroid cancer [7]
- To assess extent of enlarged thyroid tissue (Goiter) (benign **OR** malignant) with any **ONE** of the following:
  - When prior imaging or physical exam suggests extension through the thoracic inlet into the mediastinum
  - When prior imaging or physical exam suggests compression/involvement of the airway or esophagus
  - Clinical concern for airway compression/obstruction (such as symptoms of dyspnea, stridor, hoarseness) [8]
  - Clinical concern for esophageal compression/obstruction (such as symptoms of dysphagia, weight loss)

  **NOTE**: Ultrasound is the initial imaging study of a thyroid region mass. Biopsy is usually the next step in the evaluation of a possible thyroid malignancy and advanced imaging is not typically needed prior to biopsy

## Parathyroid Gland(s) [9]

- Diagnosed hyperparathyroidism when prior imaging (Such as ultrasound, nuclear medicine scan) is indeterminate or abnormal and surgery is planned **OR** is being considered

# Infection and Inflammation

- Known or suspected deep space infection and/or abscesses of the pharynx or neck with signs or symptoms of infection (such as erythema, swelling, fluctuance, fever, pain [10]

### *Throat Pain (Odynophagia) (11)*

- Advanced imaging for unexplained throat pain (odynophagia) is indicated with **ALL** of the following:
  - Duration of ≥ 2 weeks
  - Unknown etiology with no clinical evidence of infection (such as fever, swelling)
  - Otolaryngologic exam with laryngoscopy (endoscopy) showing no clear etiology of the pain
  - Prior failed treatment for laryngopharyngeal reflux (LPR) (such as diet alterations, proton pump inhibitor therapy, H2 blocker therapy)
  - Prior failed treatment for post-nasal drip (PND) (such as nasal saline irrigation, anti-histamines, decongestants, antibiotics)

- Clinical concern or risk factors for malignancy (such as prior tobacco use, alcohol use, dysphagia, weight loss, age > 50 years)

### *Ear Pain (Otalgia)* *(12)*

- Advanced imaging for unexplained ear pain (otalgia) is indicated with **ALL** of the following:
  - Duration of ≥ 2 weeks
  - Unknown etiology with no clinical evidence of infection (such as fever, swelling, middle ear fluid)
  - Otolaryngologic exam with laryngoscopy (endoscopy) **AND** ear exam showing no clear etiology of the pain
  - Clinical concern or risk factors for malignancy (such as prior tobacco use, alcohol use, dysphagia, weight loss, age > 50 years)

### *Salivary Gland Infection/Inflammation (Sialadenitis)* *(13,14)*

- After prior indeterminate or abnormal imaging
- Clinical concern for abscess formation (such as neck swelling, visualized purulence from salivary duct)
- Suspected or known salivary gland stones
- Bilateral salivary gland involvement
- Recurrent acute infection of the salivary gland(s)

### *Granulomatosis with Polyangiitis (GPA) (Formally Wegener's Granulomatosis)* *(15)*

- Advanced imaging for GPA is indicated with any **ONE** of the following:
  - Suspected GPA based on clinical findings (such as biopsy results, lab testing including antineutrophil cytoplasmic antibodies (ANCA))
  - Known GPA when imaging results of a specific anatomic area is needed to guide systemic therapy decisions

  **NOTE:** Imaging of the Neck, Chest, and/or Abdomen may also be indicated for GPA as involvement of the airway, lungs, and/or kidneys is common

## Neck Trauma

- History of recent neck trauma with any **ONE** of the following signs/symptoms:
  - Stridor or stertor
  - Dyspnea
  - Neck crepitus, subcutaneous air

- Hoarseness, dysphonia
- Dysphagia, odynophagia (pain with swallowing)
- Indeterminate or abnormal prior imaging

## Airway

- CT imaging is indicated for the evaluation of possible airway pathology with any **ONE** of the following:
  - Indeterminate or abnormal prior imaging (such as X-ray, ultrasound, fluoroscopy)
  - Clinical evidence suggesting airway obstruction (such as stridor, stertor, dyspnea on exertion)
  - For evaluation of known or suspected laryngeal, subglottic, or tracheal stenosis [16]

## Esophagus / Pharynx

- CT imaging is indicated for the evaluation of dysphagia after appropriate prior work up including endoscopy (EGD) and/or fluoroscopic studies (Such as modified barium swallow, biphasic Esophogram) is indeterminate or abnormal [10,17]

**NOTE:** CT of the neck only evaluates the pharynx and the superior portion of the esophagus (Such as the upper esophageal sphincter) and CT of the chest is also needed to fully evaluate the esophagus

## Foreign Body [18]

- To evaluate for a possible foreign body when prior imaging is indeterminate or abnormal
- For procedure/surgical planning to manage a known foreign body

## Cranial Nerve Abnormalities [19]

### *Facial Nerve Paresis/Bell's Palsy/Hemifacial Spasm (CN VII) [20,21]*

**If MRI is contraindicated or cannot be performed**

- Facial nerve paresis/ Bell's palsy / hemifacial spasm with atypical features requiring evaluation of the extracranial course of the facial nerve (such as incomplete/no improvement at three months, involvement of only specific branches of the facial nerve, second paralysis of the same side, or facial twitching/spasms prior to onset)

**NOTE:** MRI Brain with internal auditory canal (IAC) (or CT Head if MRI is contraindicated or not available) with imaging of the intracranial course of the facial nerve is the preferred initial study for facial nerve paresis/ Bell's palsy / hemifacial spasm

### *Cranial Nerves IX-XII [19]*

**If MRI is contraindicated or cannot be performed**

- Clinical evidence of cranial nerve (CN IX, X, XI, and/or XII) deficits or dysfunction (Such as dysphagia, shoulder/neck movement abnormalities, tongue movement abnormalities, vocal fold movement or sensation abnormalities)

# PREOPERATIVE OR POSTOPERATIVE ASSESSMENT

When not otherwise specified in the guideline:

Preoperative Evaluation:

- Imaging of the area requested is needed to develop a surgical plan

Postoperative Evaluation

- Known or suspected complications
- A clinical reason is provided how imaging may change management

**NOTE:** This section applies only within the first few months following surgery

# FURTHER EVALUATION OF INDETERMINATE FINDINGS

Unless follow-up is specified elsewhere in the guideline:

- For initial evaluation of an inconclusive finding on a prior imaging report that requires further clarification
- One follow-up exam of a prior indeterminate MR/CT finding to ensure no suspicious interval change has occurred. (No further surveillance unless specified as highly suspicious or change was found on last follow-up exam)

# IMAGING IN KNOWN GENETIC CONDITIONS

- PGL/PCC [22]:
    - Hereditary PGL/PCC Syndromes (including SDHx mutations): Every 2 years (including at diagnosis) **AND** MRI is contraindicated or cannot be performed

## Combination Studies for Known Genetic Conditions

**NOTE:** When medical necessity is met for an individual study **AND** conscious sedation is required (such as for young pediatric patients or patients with significant developmental delay), the entire combination is indicated)

### *Neck/Chest/Abdomen/Pelvis CT*

- PGL/PCC [22] :
  - Hereditary PGL/PCC Syndromes (including SDHx mutations): Every 2 years (including at diagnosis) AND MRI is contraindicated or cannot be performed

# OTHER COMBINATION STUDIES WITH NECK CT

**NOTE:** When medical necessity is met for an individual study AND conscious sedation is required (such as for young pediatric patients or patients with significant developmental delay), the entire combination is indicated)

## Neck/Chest CT

- Vocal cord immobility on endoscopic exam and concern for recurrent laryngeal nerve lesion
- Phrenic nerve paralysis on diaphragm fluoroscopy (fluoroscopic sniff test)
- Evaluation of dysphagia after appropriate prior work up including endoscopy (EDG) and/or fluoroscopic studies (such as modified barium swallow, biphasic Esophogram) is indeterminate abnormal [17]
- Evaluation of possibly airway pathology with any **ONE** of the following:
  - Indeterminate or abnormal prior imaging (such as X-ray, ultrasound, fluoroscopy)
  - Clinical evidence suggesting airway obstruction (such as stridor, stertor, dyspnea on exertion)
  - For evaluation of known or suspected laryngeal, subglottic, or tracheal stenosis [16]

## Sinus/Maxillofacial/Neck/Chest/Abdomen CT

- Advanced imaging for Granulomatosis with Polyangitis (GPA) (Formally Wegener's Granulomatosis) [15]

## Face/Sinus/Orbit/Neck CT and PET

- Suspected or known malignancy of the head and/or neck with any **ONE** of the following [4]:
  - For initial staging, restaging, or suspected recurrence of head and neck cancer
  - For surgical or radiation planning
  - 3-4 months after end of treatment in patients with locoregionally advanced disease or with altered anatomy
  - Annually when it is documented that the area of original disease is difficult to follow with direct visualization and/or endoscopy (such as orbit, nasopharynx, base of tongue, hypopharynx, pyriform sinus)

## Combination Studies for Malignancy for Initial Staging or Restaging

Unless otherwise specified in this guideline, indication for combination studies for malignancy for initial staging or restaging:

- Concurrent studies to include CT or MRI of any of the following areas as appropriate depending on the cancer: Abdomen, Brain, Chest, Neck, Pelvis, Cervical Spine, Thoracic Spine or Lumbar Spine.

# CODING AND STANDARDS

## Codes

70490, 70491, 70492, +0722T

## Applicable Lines of Business

| | |
|---|---|
| ☒ | CHIP (Children's Health Insurance Program) |
| ☒ | Commercial |
| ☒ | Exchange/Marketplace |
| ☒ | Medicaid |
| ☒ | Medicare Advantage |

# BACKGROUND

## Contraindications and Preferred Studies

- Contraindications and reasons why a CT/CTA cannot be performed may include: impaired renal function, significant allergy to IV contrast, pregnancy (depending on trimester).
- Contraindications and reasons why an MRI/MRA cannot be performed may include: impaired renal function, claustrophobia, non-MRI compatible devices (such as non-compatible defibrillator or pacemaker), metallic fragments in a high-risk location, patient exceeds limit/dimensions of MRI machine.

# SUMMARY OF EVIDENCE

**ACR Appropriateness Criteria® Neck Mass-Adenopathy** [1]

**Study Design**: This document is a guideline developed by the American College of Radiology (ACR) for the appropriate use of imaging in the evaluation of neck masses and adenopathy. It is based on a comprehensive review of current medical literature and expert opinion.

**Target Population**: The guidelines apply to both adult and pediatric patients presenting with a palpable neck mass or neck fullness.

**Key Factors**: The choice of imaging is based on patient age, mass location, and clinical pulsatility. For example, CT neck with IV contrast is usually appropriate for non-pulsatile neck masses, while MRI neck without and with IV contrast is recommended for pulsatile neck masses. The guidelines emphasize the importance of considering neoplastic, congenital, and inflammatory causes of neck masses. For adults over 40, especially with a smoking history, malignancy is highly suspected. The document discusses various imaging techniques such as CT, MRI, ultrasound, and PET/CT, and their appropriateness for different clinical scenarios. It is recommended to confirm suspected malignancy through tissue sampling.

**Clinical Practice Guideline: Evaluation of the Neck Mass in Adults** [5]

**Study Design**: This is a clinical practice guideline developed by the American Academy of Otolaryngology—Head and Neck Surgery Foundation for the evaluation of neck masses in adults. It is based on systematic reviews, randomized controlled trials, and expert consensus.

**Target Population**: The guideline targets adults aged 18 years and older with a neck mass.

**Key Factors**: The guideline aims to promote efficient, effective, and accurate diagnostic workup of neck masses to ensure prompt diagnosis and intervention for potentially malignant diseases. It identifies patients at increased risk for malignancy based on factors such as the absence of infectious etiology, mass duration of ≥2 weeks, fixation to adjacent tissues, firm consistency, size >1.5 cm, and ulceration of overlying skin. The guideline recommends a thorough history and physical examination, imaging (CT or MRI with contrast), and fine-needle aspiration (FNA) for diagnosis.

# ANALYSIS OF EVIDENCE

**Analysis** [1,5]:

Both articles underscore the significance of neck CT with contrast in diagnosing and evaluating neck masses, particularly for detecting malignancy. They agree on the complementary role of other imaging techniques like MRI and ultrasound. However, they differ in their specific recommendations and discussions of imaging techniques, with "Aulino 2019 ACR Neck Mass Adenopathy" providing detailed appropriateness criteria and "Pynnonen 2017" emphasizing the evaluation of cystic neck masses.

**Shared Conclusions:**

- **Importance of Neck CT with Contrast**: Both articles emphasize the importance of using neck CT with intravenous (IV) contrast for evaluating neck masses. This imaging

modality is considered essential for detecting abscesses, tumors, and inflammation, and for providing precise localization of the palpable findings.

- **Role in Diagnosing Malignancy**: Both articles agree that neck CT with contrast is crucial for diagnosing malignancy. It helps in identifying abnormal lymph nodes, guiding the search for primary tumors, and assessing the relationship of neck masses to major vessels.
- **Complementary Imaging Techniques**: Both articles mention that neck CT can be complemented by other imaging techniques such as MRI and ultrasound. MRI is noted for its improved soft-tissue contrast, while ultrasound is useful for image-guided sampling.

# POLICY HISTORY

| Date | Summary |
|---|---|
| July 2025 | • Adjusted guideline name, spelled out acronym<br>• Added a Summary of Evidence and Analysis of Evidence<br>• Last reviewed date adjusted |
| June 2025 | • This guideline replaces Evolent Clinical Guideline 008-1 for Neck CT<br>• Added in general information statement regarding guideline criteria development by reputable sources, standard of care, and best practices<br>• Clarified indications for neck mass, ear pain, throat pain, and salivary gland diagnosis<br>• Added thyroid goiter, neck trauma, airway pathology, and granulomatosis angiitis indications<br>• Updated language in the preoperative/postoperative section<br>• Segment added to combinations studies about if the required use of conscious sedation is needed the entire combination is indicated<br>• Sinus and Orbit added to the Face/Neck CT and PET combo and added in additional criteria<br>• Added Sinus/Maxillofacial/Neck/Chest/ Abdomen CT combo with GPA indication<br>• Added additional criteria to the Neck/Chest CT combo for dysphagia and evaluation of airway pathology<br>• Applicable Line of Business adjusted – Medicare checked |

| Date | Summary |
|---|---|
| | • Reduced background<br>• Updated references |
| June 2024 | • Updated references<br>• Updated background<br>• Added follow-up of known cancer section (initial staging, restaging, surveillance)<br>• Added combo section |

# LEGAL AND COMPLIANCE

## Guideline Approval

### *Committee*

**Reviewed / Approved by Evolent Specialty Services Clinical Guideline Review Committee**

## Disclaimer

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*Evolent Clinical Guidelines are comprehensive and inclusive of various procedural applications for each service type. Our guidelines may be used to supplement Medicare criteria when such criteria is not fully established. When Medicare criteria is determined to not be fully established, we only reference the relevant portion of the corresponding Evolent Clinical Guideline that is applicable to the specific service or item requested in order to determine medical necessity.*

# REFERENCES


1. Aulino JM, Kirsch CFE, Burns J, et al. ACR Appropriateness Criteria® Neck Mass-Adenopathy. *Journal of the American College of Radiology*. 2019;16(5):S150-S160. doi:10.1016/j.jacr.2019.02.025
2. Garner HW, Wessell DE, Lenchik L, et al. ACR Appropriateness Criteria® Soft Tissue Masses: 2022 Update. *Journal of the American College of Radiology*. 2023;20(5):S234-S245. doi:10.1016/j.jacr.2023.02.009
3. Lahiri AK, Daultrey CR. Imaging evaluation of the benign and malignant lesions of the floor of the mouth: Pictorial review. *South African Journal of Radiology*. 2023;27(1). doi:10.4102/sajr.v27i1.2677
4. Referenced with permission from the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Head and Neck Cancers Version 1.2025. © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. To view the most recent and complete version of the guideline, go online to NCCN.org.
5. Pynnonen MA, Gillespie MB, Roman B, et al. Clinical Practice Guideline: Evaluation of the Neck Mass in Adults. *Otolaryngology–Head and Neck Surgery*. 2017;157(S2):S1-S30. doi:10.1177/0194599817722550
6. Dankbaar JW, Pameijer FA. Vocal cord paralysis: anatomy, imaging and pathology. *Insights Imaging*. 2014;5(6):743-751. doi:10.1007/s13244-014-0364-y
7. Hoang JK, Oldan JD, Mandel SJ, et al. ACR Appropriateness Criteria® Thyroid Disease. *Journal of the American College of Radiology*. 2019;16(5):S300-S314. doi:10.1016/j.jacr.2019.02.004
8. Gharib H, Papini E, Garber JR, et al. American Association of Clinical Endocrinologists, American College of Endocrinology, and Associazione Medici Endocrinologi Medical Guidelines for Clinical Practice for the Diagnosis and Management of Thyroid Nodules - 2016 Update Appendix. *Endocrine Practice*. 2016;22:1-60. doi:10.4158/EP161208.GL
9. Petranović Ovčariček P, Giovanella L, Carrió Gasset I, et al. The EANM practice guidelines for parathyroid imaging. *Eur J Nucl Med Mol Imaging*. 2021;48(9):2801-2822. doi:10.1007/s00259-021-05334-y
10. Rahim I, Napolitano A, Burd C, Lingam RK. Imaging of pharyngeal pathology. *Br J Radiol*. 2023;96(1149). doi:10.1259/bjr.20230046
11. Polastri M, Di Marco L, Andreoli E. Odynophagia in individuals with neck pain: the importance of differential diagnosis in physiotherapy practice. *Journal of Yeungnam medical science*. 2023;40(Suppl):S129-S133. doi:10.12701/jyms.2023.00843
12. Norris CD, Koontz NA. Secondary Otalgia: Referred Pain Pathways and Pathologies. *AJNR Am J Neuroradiol*. 2020;41(12):2188-2198. doi:10.3174/ajnr.A6808
13. Abdel Razek AAK, Mukherji S. Imaging of sialadenitis. *Neuroradiol J*. 2017;30(3):205-215. doi:10.1177/1971400916682752

14. Kalia V, Kalra G, Kaur S, Kapoor R. CT Scan as an Essential Tool in Diagnosis of Non-radiopaque Sialoliths. *J Maxillofac Oral Surg*. 2015;14(S1):240-244. doi:10.1007/s12663-012-0461-8

15. Watanabe R, Hashimoto M. Eosinophilic Granulomatosis with Polyangiitis: Latest Findings and Updated Treatment Recommendations. *J Clin Med*. 2023;12(18). doi:10.3390/jcm12185996

16. Little BP, Walker CM, Bang TJ, et al. ACR Appropriateness Criteria® Tracheobronchial Disease. *Journal of the American College of Radiology*. 2024;21(11):S518-S533. doi:10.1016/j.jacr.2024.08.015

17. Levy AD, Carucci LR, Bartel TB, et al. ACR Appropriateness Criteria® Dysphagia. *Journal of the American College of Radiology*. 2019;16(5):S104-S115. doi:10.1016/j.jacr.2019.02.007

18. Pham ST, Sakai O, Andreu-Arasa VC. Imaging approach to ingested foreign bodies in the neck. *Neuroradiology*. 2024;66(6):867-881. doi:10.1007/s00234-024-03348-5

19. Rath TJ, Policeni B, Juliano AF, et al. ACR Appropriateness Criteria® Cranial Neuropathy: 2022 Update. *Journal of the American College of Radiology*. 2022;19(11):S266-S303. doi:10.1016/j.jacr.2022.09.021

20. Baugh RF, Basura GJ, Ishii LE, et al. Clinical practice guideline: Bell's palsy. *Otolaryngol Head Neck Surg*. 2013;149(3 Suppl):S1-27. doi:10.1177/0194599813505967

21. Yao L, Wang B, Lu F, He X, Lu G, Zhang S. Facial nerve in skullbase tumors: imaging and clinical relevance. *Eur J Med Res*. 2023;28(1):121. doi:10.1186/s40001-023-01078-7

22. Else T, Greenberg S, Fishbein L. Hereditary Paraganglioma-Pheochromocytoma Syndromes. *GeneReviews*®. Published online September 21, 2023. https://www.ncbi.nlm.nih.gov/books/NBK1548/