Cohere Medical Policy - Computed Tomography (CT), Orbit/Ear/Sella

Clinical Policy for Medical Necessity Review

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Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice.

Other Notices:

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

Policy Information:

Specialty Area: Diagnostic Imaging
Policy Name: Cohere Medical Policy - Computed Tomography (CT), Orbit/Ear/Sella
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Computed Tomography (CT), Orbit/Ear/Sella

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a clinical evaluation by the treating provider, which may include a referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- Repeat diagnostic testing due to technical issues—such as patient motion, incomplete exams, or incorrect imaging sequences—may not be considered medically necessary, as it is the responsibility of the imaging center to deliver appropriate, high-quality studies as originally authorized. Similarly, repeat imaging requested at a different facility based solely on provider preference may not be approved for medical necessity.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
    - The medical necessity of each individual request

    - Why prior imaging or procedures were inconclusive or why additional/follow-up studies are needed
    - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.
- Cohere Health evaluates imaging exams based on medical necessity, regardless of contrast use. If an initial non-contrast study is completed and the radiologist later determines that contrast is needed to clarify a finding, the original authorization number may be used—provided the contrast-enhanced exam is performed at the same imaging center and within the original request's validity period, unless otherwise directed by the health plan.

Description

Computed tomography (CT) is a common noninvasive imaging modality that allows for the visualization of the extracranial head. It allows for the evaluation of the morphology and pathology of extracranial structures. It can be performed both with and without contrast, depending on the structures being visualized.[1]

Medical Necessity Criteria

Indications

Computed tomography (CT), orbit/ear/fossa is considered appropriate if **ANY** of the following is **TRUE**[1]:

- Orbital indications, including **ANY** of the following:
  - Trauma-related conditions, including traumatic visual defect with suspected orbital injury[2]; **OR**
  - **ANY** of the following if magnetic resonance imaging (MRI) is contraindicated or cannot be performed:
    - Congenital conditions (e.g., capillary hemangioma, optic nerve hypoplasia); **OR**
    - Optic neuritis; **OR**
    - Eye pain, with history or other sign or symptom, indicating nonischemic pathology; **OR**
    - Ophthalmoplegia; **OR**
    - Eye movement abnormality in a child (e.g., strabismus, nystagmus in a child 6 months or older); **OR**
    - Vision loss or visual field deficit with history or other signs or symptoms indicating nonischemic intra-orbital pathology; **OR**
    - Orbital infectious process, suspected or known, that has failed medical management (e.g., orbital cellulitis not responding appropriately to antibiotics) or the patient is pediatric or immunocompromised; **OR**
  - Conditions, known or suspected, including **ANY** of the following[2]:
    - Initial staging, treatment response, surveillance, complication, recurrence, treatment planning, or treatment response of an orbital mass (e.g., dermoid, melanoma, lymphoma, metastases)[3]; **OR**
    - Orbital pseudotumor or orbital inflammatory disease; **OR**
    - Osseous lesions (e.g., fibrodysplasia, Paget's); **OR**
    - Foreign body, suspected clinically or seen on prior imaging; **OR**
    - Scleritis confirmed clinically with failure of medical management or with complication suspected[4]; **OR**
    - Uveitis, confirmed clinically with complication suspected; **OR**
    - Thyroid orbitopathy; **OR**
    - Venous conditions (e.g., orbital varices); **OR**

- Additional evaluation is needed when etiology remains unclear following a complete eye examination that includes funduscopy, including **ANY** of the following:
  - Diplopia; **OR**
  - Enophthalmos[5]; **OR**
  - Exophthalmos; **OR**
  - Orbital asymmetry; **OR**
  - Preseptal or postseptal orbital mass, otherwise unexplained; **OR**
  - Proptosis; **OR**
  - Unilateral papilledema; **OR**
  - Orbital hemorrhage; **OR**
- Preoperative, postoperative, or pretreatment evaluation for surgery, radiation, or chemotherapy; **OR**

- Temporal bone and inner ear indications, including **ANY** of the following:
  - Conditions, known or suspected, including **ANY** of the following[6]; **OR**
    - Aberrant and symptomatic congenital or acquired anatomy (e.g., stenosis of the external auditory canal [EAC] or dehiscence of the superior semicircular canal, facial nerve canal, carotid canal, or jugular bulb); **OR**
    - Cholesteatoma, initial and 9- to 12-month postoperative follow-up; **OR**
    - Tympanosclerosis; **OR**
    - Neoplastic conditions, detection, and follow-up (including tumors of the internal or external auditory canal, inner ear, and mastoid); **OR**
    - Otitis media, recurrent with at least 3 episodes in the past 12 months, with complications suspected (e.g., hearing loss, intracranial extension, mastoiditis)[7]; **OR**
    - Malignant otitis externa (also known as skull base osteomyelitis or necrotizing otitis externa) is suspected[8]; **OR**
    - Complicated otitis media, unresponsive to antibiotics, with new or worsening symptoms (e.g., headache, vertigo, neck rigidity or neurologic deficits)[8]; **OR**
    - Mastoiditis; **OR**
    - Other infectious processes involving the middle or inner ear, where imaging is needed to direct appropriate management; **OR**
    - Bell's palsy or other facial nerve abnormalities requiring evaluation of the extracranial portion of the nerve (MRI is contraindicated or cannot be performed); **OR**

        - Tinnitus, unexplained by history or physical examination, and is worsening or affects daily function (MRI is contraindicated or cannot be performed)[9]; **OR**
    - Symptoms or signs evaluated by complete auditory examination, including **ANY** of the following[6]:
        - Conductive, mixed-conductive, or congenital hearing loss; **OR**
        - Sensorineural hearing loss, acquired or congenital, (MRI is contraindicated or cannot be performed); **OR**
        - Total deafness, otherwise unexplained; **OR**
        - Vertigo, unexplained by history or physical examination with **ANY** of the following:
            - Worsening; **OR**
            - Affected daily function; **OR**
            - Associated hearing loss or other neurological deficits; **OR**
            - History of prior infection (e.g., otitis or meningitis); **OR**
            - History of prior trauma; **OR**
    - Trauma-related conditions related to the ear, including evaluation of cerebrospinal fluid leak[9-11]; **OR**
    - Preoperative, postoperative, or pretreatment evaluation for surgery, radiation, or chemotherapy (including evaluation for cochlear implant); **OR**
    - Vascular conditions, known or suspected, related to the ear or temporal bone[12]; **OR**
    - Pulsatile tinnitus, when magnetic resonance angiography (MRA), computed tomography angiography (CTA), or magnetic resonance imaging (MRI) contraindicated or cannot be performed;[13] **OR**
- Sellar and posterior fossa indications, including **ANY** of the following indications related to a sella or posterior fossa:
    - Sellar mass (including pituitary masses) is suspected due to documented clinical or laboratory findings (e.g., prolactinemia); **OR**
    - Visual field deficit (e.g., bitemporal hemianopsia) indicating optic nerve compression, when MRI is contraindicated or cannot be performed; **OR**
    - Other neoplastic conditions, known, suspected, or suggested by prior imaging (e.g., meningioma); **OR**
    - Trauma-related conditions; **OR**
    - Pituitary dysfunction, suggested by documented laboratory or clinical abnormalities (e.g., pituitary failure due to conditions such as pituitary apoplexy); **OR**

    - Vascular conditions, known or suspected, including aberrant anatomy; **OR**
    - Preoperative, postoperative, or pretreatment evaluation for surgery, radiation, or chemotherapy (including preoperative planning for removal of the pituitary tumor); **OR**
- Repeat imaging (defined as a repeat request following recent imaging of the same anatomic region with the same or similar modality) will be considered reasonable and necessary if **ALL** of the following are **TRUE**:
    - There are no established guidelines; **AND**
    - **ANY** of the following:
        - There are new or worsening symptoms not addressed in the guidelines, such that repeat imaging would influence treatment; **OR**
        - There is need for a one-time clarifying follow-up of a prior indeterminate finding; **OR**
        - In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

Computed tomography (CT), orbit/ear/fossa with contrast is not considered appropriate if **ANY** of the following is **TRUE**[14]:

- The patient has undergone advanced imaging of the same body part within 3 months without undergoing treatment or developing new or worsening symptoms[15].

*NOTE: The referring professional and radiologist should discuss the risks and benefits of contrast media administration, including possible prophylaxis, in patients with chronic or worsening kidney disease or severe renal failure.
**NOTE: CT in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.
***NOTE: CT in patients with claustrophobia should be requested at the discretion of the ordering provider.

Disclaimer on Radiation Exposure in Pediatric Population

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.[16,17]

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT, fluoroscopy, or radiography.[16,17]

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.[16,17]

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.[16,17]

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
70480	Computed tomography (CT), orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material
70481	Computed tomography (CT), orbit, sella, or posterior fossa; with contrast material(s)
70482	Computed tomography (CT), orbit, sella, or posterior fossa; without contrast material, followed by contrast material(s) and further sections
76380	Computed tomography, limited or localized follow-up study

Medical Evidence

Bedernik et al. (2022) conducted a randomized control trial (RCT) to assess image quality by comparing single-energy computed tomography (SECT) with automated tube voltage adaptation (TVA) to dual-energy CT (DECT) weighted average images. A total of 80 patients underwent SECT or radiation dose-matched DECT. The effective radiation dose showed no significant difference between the SECT and DECT study groups. Compared to the SECT group, the DECT group exhibited significantly higher contrast-to-noise ratio differences (CNRD) for jugular veins relative to fatty tissue and muscle tissue relative to fatty tissue. However, the CNRD for jugular veins relative to muscle tissue was comparable between groups. Image artifacts were also less pronounced, and overall diagnostic acceptability was higher in the DECT group. Overall, DECT-weighted average images demonstrate superior objective and subjective image quality compared to SECT performed with TVA in head and neck imaging.[18]

Smith-Bindman et al. (2020) performed an RCT to study the efficacy of interventions to lower radiation doses in patients undergoing a CT scan. The RCT included 864,080 adults at 100 facilities who underwent a CT scan, including CT of the head (n = 1,156,657 scans). The study included two primary measures: the percentage of high-dose CT scans and the average effective dose administered at the facility level. The study's secondary measure included the doses received by specific organs. The authors examined the change in outcomes following interventions, contrasting the data with preintervention data, utilizing hierarchical generalized linear models that accounted for temporal patterns and patient attributes. In conclusion, data regarding CT radiation dosage and practical recommendations may improve quality, including significant dose reductions, especially for organ-specific doses.[19]

Aulino et al. (2018) reported on a clinical trial that focused on an assessment tool for the late effect continuum of lymphedema and fibrosis (LEF) for patients with head and neck cancer (HNC) undergoing CT. The tool evaluates areas of soft tissue damage resulting from tumors, surgical interventions, or radiation therapy. The tool analyzed CT scans taken before and after treatment in 10 patients with HNC. The finalized tool has 11 elements, including

assessing fat stranding at six specific sites, measuring epiglottic thickness, and measuring prevertebral soft tissue thickness at C3. The trial includes 176 CT scans from 20 patients (with a range of 4-14 scans per patient). The final version of the LEF assessment tool (CT-LEFAT) offers a standardized approach to assess critical sites affected by soft tissue damage. Studies continue to evaluate reliability and validity.[20]

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Policy Revision History/Information

Original Date: May 6, 2022		
Review History		
Version 2	08/20/2024	Annual review and policy restructure.
Version 3	10/30/2024	Edited repeat imaging criteria language.
Version 4	08/28/2025	Annual review Updated content layout to align with revised template, including repeat imaging criteria