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2025 Computed Tomography (CT) Internal Auditory Canal (IAC), Mastoid, Orbits, Sella and Temporal Bone

Diagnostic Imaging

CT-Orbits-HH

Last Review Date: 04/02/2025
Previous Review Date: 10/28/2024
Guideline Initiated: 06/30/2019

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Computed Tomography (CT) Internal Auditory Canal, Mastoid, Orbits, Sella, Temporal Bone Guideline

NCD 220.1
See also, **NCD 220.1**: Computed Tomography at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

CT General Contraindications

Computed tomography (CT) is contraindicated (relative) for **ANY** of the following: [1]

- Allergy/idiosyncratic reaction to contrast material (if intravascular contrast material is used)
- Pregnancy
- Renal impairment (glomerular filtration rate [GFR] is less than 30 ml/min/1.73 m^2.)

Preamble: Pediatric Diagnostic Imaging

HealthHelp's clinical guidelines for the Diagnostic Imaging program, are intended to apply to both adults and pediatrics (21 years of age or younger), unless otherwise specified within the criteria.

CT Internal Auditory Canal (IAC), Mastoid and Temporal Bone Guideline

A computed tomography (CT) of the internal auditory canal (IAC), mastoid bone and temporal bone is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Bell's palsy (peripheral facial nerve palsy) evaluation when magnetic resonance imaging (MRI) is **contraindicated or unavailable** and **ANY** of the following:
    a. Atypical symptoms (eg, dysphagia, dizziness, headache)
    b. Facial twitching/spasms prior to onset [8]
    c. Recurrent
    d. **NO** improvement at 2 to 4 months

    References: [21]
2. Cerebrospinal fluid (CSF) otorrhea to characterize a bony defect. (*__NOTE__: *Intermittent leaks and complex cases consider CT/magnetic resonance [MR]/nuclear cisternography) CSF fluid should always be confirmed with laboratory testing [Beta-2 transferrin assay].*)

References: [14]

3. Cholesteatoma is suspected or known.
References: [26]

4. Hearing loss (documented on audiogram) and **ANY** of the following: (*__NOTE__: *For congenital/childhood sensorineural hearing loss suspected to be due to a structural abnormality, CT is the preferred imaging modality for the osseous structures and malformations of the inner ear. MRI is used for evaluating CNVIII, the brain parenchyma, or the membranous labyrinth*.)
    a. Cochlear implant evaluation
    b. Conductive or mixed conductive with sensorineural and ordered by ear, nose and throat specialist
    c. Congenital/childhood sensorineural hearing loss is suspected, due to a structural abnormality.
    d. Sensorineural when MRI is **contraindicated or unavailable**.

    References: [22]

5. Mass or tumor (eg, chondrosarcoma, chordoma, squamous cell carcinoma) is known, for extent of disease.
References: [3]

6. Mastoiditis, acute, is clinically suspected, as a complication of acute otitis media, and **ANY** of the following: [5]
    a. Intracranial complications (eg, epidural abscess, subdural empyema) are suspected.
    b. Treatment **FAILED** (eg, intravenous antibiotics, myringotomy with placement of tympanostomy tube **AND** high dose steroids)

    References: [18]

7. Osteomyelitis of the skull base is suspected.
References: [7]

8. Otitis externa is known, individual is diabetic **OR** immunocompromised **AND** necrotizing (malignant) otitis externa is suspected.
References: [24] [19]

9. Otitis media (with or **WITHOUT** cholesteatoma on exam) is chronic (more than 4 weeks), with **FAILED** treatment (eg, antibiotic course, intervention by ear, nose and throat specialist) for acute otitis media.
References: [15]

10. Post-surgical assessments for evaluation of complications or disease recurrence
11. Petrous apex lesion is suspected or known.
    References: [20]
12. Temporal bone fracture is suspected or known and **ANY** of the following:
    a. Fracture is known, for surgical or treatment planning.
    b. Fracture is suspected based on mechanism of injury.
    c. Initial imaging is non-diagnostic or indeterminate.

    References: [11]
13. Tinnitus is pulsatile **AND** otoscopic exam is non-diagnostic or indeterminate.
    References: [9]
14. Vascular abnormalities are suspected or known, prior imaging is non-diagnostic or indeterminate, and **ANY** of the following
    a. Dehiscence of the jugular bulb or carotid canal
    b. Vascular anomalies of the temporal bone (eg, aberrant internal carotid artery, aberrant petrosal sinus, high jugular bulb, persistent stapedial artery)
15. Vertigo and **EITHER** of the following:
    a. Chronic, recurrent and associated with unilateral hearing loss or tinnitus
    b. Episodic, with or **WITHOUT** hearing loss or peripheral vertigo.

    References: [22] [25]

CT Orbits Guideline

A computed tomography (CT) of the orbits is considered medically appropriate when the documentation demonstrates **ANY** of the following: (*__NOTE:__ *CT is preferred for visualizing bony detail and calcifications. MRI is superior for the evaluation of the visual pathways, globe and soft tissues*.)

1. Complex strabismus (with ophthalmoplegia or ophthalmoparesis) to aid in diagnosis, treatment **or** surgical planning.
   References: [23]
2. Congenital orbital anomalies are known or suspected.
   References: [2]
3. Eye exam, external or direct, is abnormal and **ANY** of the following:
   a. Exophthalmos (proptosis) or enophthalmos is present. [16] [13]

b. Ophthalmoplegia and orbital pathology is suspected.

c. Optic disc swelling is unilateral **AND** MRI is **contraindicated or unavailable**.

d. Visual defect, MRI is **contraindicated or unavailable** and **ALL** of the following:

i. Optic disc(s) are abnormal (eg, edema, optic disc blurring or pallor) **OR** unilateral.

ii. Defect is **NOT** explained by an underlying diagnosis, glaucoma or macular degeneration.

References: [12]

4. Orbital infection is clinically suspected.
References: [12]

5. Orbital inflammatory disease (eg, eye pain and restricted eye movement with suspected orbital pseudotumor).
References: [6]

6. Orbital or ocular mass/tumor is suspected or known and demonstrated on prior ultrasound or visual exam.
References: [12]

7. Orbital trauma and **ANY** of the following:

a. Fracture is demonstrated on prior X-ray, for surgical or treatment planning.

b. Orbital trauma is suspected.

c. Physical findings of direct eye injury

References: [12]

8. Osteomyelitis is clinically suspected and **ANY** of the following:

a. Bony deformity is directly visualized.

b. X-rays are abnormal, non-diagnostic or indeterminate.

References: [17]

9. Post-surgical assessments for evaluation of complications or disease recurrence

CT Sella Guideline

Computed tomography (CT) of the sella is considered medically appropriate, when MRI is **contraindicated or unavailable** and the documentation demonstrates **ANY** of the following:

1. Parasellar or sellar masses are known, for further evaluation
References: [4] [10]

2. Pituitary gland disorder is suspected, based on **EITHER** of the following:
    a. Pituitary apoplexy with sudden onset of neurological (eg, dizziness, loss of balance, muscle weakness) and hormonal symptoms (eg, high blood pressure, hot flashes, weight gain)
    b. Pituitary dysfunction is suspected, per laboratory findings.
    c. Sella (pituitary) mass is suspected from prior imaging.
    d. Visual field defect with suspected compression of the optic chiasm.

    References: [4]
3. Post-surgical assessments for evaluation of complications or disease recurrence

LCD 35175
See also, **LCD 35175**: MRI and CT Scans of the Head and Neck at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

LCD 37373
See also, **LCD 37373**: MRI and CT Scans of Head and Neck at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

Head and Neck Cancer Surveillance section

Bone Cancer Surveillance

Bone cancer surveillance includes **ANY** of the following:

1. Chondrosarcoma surveillance for **ANY** of the following:
    a. Atypical cartilaginous tumor surveillance with cross-sectional imaging (CT + contrast, MRI ± contrast) every 6 to 12 months for 2 years, then annually as clinically indicated
    b. Low-grade, extracompartmental appendicular tumor, grade I axial tumors or high-grade (grade II or III, clear cell or extracompartmental) tumors surveillance with **ALL** of the following:
        i. Chest CT at least every 6 months for 5 years, then annually for at least 10 years, then if symptoms are new or progressing.

ii. MRI (± contrast) or CT (+ contrast) if symptoms are new or progressing.

2. Chordoma surveillance with **ALL** of the following:
    a. Chest CT imaging every 6 months, annually for 5 years, then annually thereafter, then if symptoms are new or worsening.
    b. Imaging of primary site, timing and modality (eg, MRI ± CT [both + contrast]) if symptoms are new or progressing, up to 10 years
3. Ewing Sarcoma after primary treatment completed surveillance with **ALL** of the following:
    a. Chest CT: every 3 months
    b. Primary site imaging with MRI ± CT (both + contrast), increase intervals after 24 months and after 5 years, annually, then if symptoms are new or progressing (indefinitely) (*__NOTE__: *PET/CT [head-to-toe] is appropriate*)
4. Giant cell tumor of the bone surveillance with **ALL** of the following:
    a. Chest CT or MRI imaging every 6 to 12 months for 4 years, then annually thereafter, then if symptoms are new or progressing
    b. Surgical site imaging if symptoms are new or progressing (eg, CT and/or MRI, both with contrast)
5. Osteosarcoma surveillance with primary site and chest imaging (using same imaging that was done for initial work-up) for **ANY** of the following: (*__NOTE__: *PET/CT [head-to-toe] is appropriate*.)
    a. Image every 3 months for years 1 and 2
    b. Image every 4 months for year 3
    c. Image every 6 months for years 4 and 5
    d. Image annually for year 6 and thereafter, then if symptoms are new or progressing

References: [2025 Bone Cancer Version 2.2025]

Central Nervous System (CNS) Cancer Surveillance

Central nervous system (CNS) cancer surveillance includes **ANY** of the following:

1. Glioblastoma, *IDH* wild-type, magnetic resonance imaging with (MRI) of the brain and **ANY** of the following:
    a. Pre-operative and post-operative; within 48 hours
    b. Pre-radiation planning; every 3 to 5 weeks, post-operatively
    c. Post-radiation; 3 to 6 weeks post-radiation, then every 2 to 3 months for 3 years, then every 2 to 4 months indefinitively

2. Glioma, imaging with MRI of the brain and **ANY** of the following:
    a. Astrocytoma, *IDH* mutated and **ANY** of the following:
        i. Grade 2 and **ANY** of the following:
            A. After radiation therapy (RT) **AND** chemotherapy: every 6 months until tumor progression
            B. After RT **OR** chemotherapy: every 3 to 4 months for the 1st 5 years, then every 3 to 4 months until tumor progression
            C. After surgery: every 3 to 4 months until tumor progression
        ii. Grade 3 and **ANY** of the following;
            A. After RT **AND** chemotherapy: every 6 months until tumor progression
            B. After RT **OR** chemotherapy: every 3 to 4 months for the 1st 5 years, then every 3 to 4 months until tumor progression
        iii. Grade 2 or 3, recurrent; image every 2 to 3 months
    b. Oligodendroglioma, *IDH* mutated, 1p/19q co-deleted and **ANY** of the following:
        i. Grade 2 and **ANY** of the following:
            A. After radiation therapy (RT) **AND** chemotherapy: every 6 to 9 months until tumor progression
            B. After RT **OR** chemotherapy: every 3 to 4 months for the 1st 5 years, then every 3 to 4 months until tumor progression
            C. After surgery: every 3 to 4 months until tumor progression (*__NOTE__: *For individuals who underwent gross total resection, every 6 to 9 months for 5 years post-surgery until tumor progression*)
        ii. Grade 3 and **ANY** of the following:
            A. After radiation therapy (RT) **AND** chemotherapy: every 6 to 9 months until tumor progression
            B. After RT **OR** chemotherapy: every 3 to 4 months for the 1st 5 years, then every 3 to 4 months until tumor progression
        iii. Grade 2 or 3, recurrent, image every 3 to 4 months
3. Leptomeningeal metastases imaging with MRI of the brain and/or total spine every 2 to 3 months for the 1st 2 years, every 6 months until year 5, then annually indefinitively
4. Medulloblastoma, imaging with MRI of the brain every 2 to 3 months for 2 years

5. Primary CNS lymphoma, image every 2 to 3 months for 2 years

References: [2025 Central Nervous System Cancers Version 1.2025]

Esophageal and Esophagogastric Junction Cancer Surveillance

Esophageal and esophagogastric junction cancer surveillance includes **ANY** of the following[1]:

1. Adenocarcinoma, squamous cell carcinoma; imaging studies if symptoms are new or progressing
2. Tumor classification T1b[a] (N0 on ultrasound) after endoscopic resection or ablation, imaging surveillance includes computed tomography (CT) chest and abdomen (+ contrast, unless **contraindicated**) every 6 months for the first 2 years and annually for up to 5 years
3. Tumor classification T1b or greater, any N[a] or T1a N+, imaging surveillance includes esophagectomy performed with or **WITHOUT** adjuvant therapy then surveillance includes chest and abdomen CT (+ contrast, unless **contraindicated**) every 6 months for the first 2 years and annually for up to 5 years
4. Tumor classification any T and/or any N, with neoadjuvant chemotherapy **OR** chemoradiotherapy **AND** esophagectomy, with or **WITHOUT** adjuvant treatment, imaging surveillance includes chest and abdomen CT (+ contrast, unless **contraindicated**) every 6 months for up to 2 years, then annually for up to 5 years and EGD, then if symptoms are new or progressing
5. Tumor classification (pretreatment) N0 to N+, T1b to T4, T4b, with definitive chemoradiation (**WITHOUT** esophagectomy), surveillance imaging includes chest and abdomen CT (+ contrast unless **contraindicated**) every 3 to 6 months for the first 2 years and annually for up to 5 years

References: [2025 Esophageal and Esophagogastric Junction Cancers Version 3.2025]

Head and Neck Cancers Surveillance

Head and neck cancers surveillance for locoregionally advanced disease after treatment, includes **ANY** of the following:

1. Short-term surveillance (less than 6 months after treatment), if there is high-risk of early recurrence, symptoms of early recurrence or before starting adjuvant post-operative therapy:

[1]Routine esophageal/esophagogastric junction cancers are **NOT** recommended for cancer-specific surveillance, for more than 5 years after the end of treatment.

a. Computed tomography (CT) or magnetic resonance imaging (MRI) within 3 to 4 months post-operatively to establish a new baseline for future comparisons

b. FDG positron emissions tomography/computed tomography (FDG PET/CT) within 3 to 6 months of definitive radiation or systemic therapy/RT.

c. Incomplete response is suspected: CT or MRI scan earlier (eg, 4 to 8 weeks) based on new or progressing symptoms. (*__NOTE__: *Use ultrasound [US] of the neck for targeted sampling.*)

2. Long-term surveillance (6 months or more from end-of-treatment, up to 5 years after treatment) with CT, MRI, FDG PET/CT to obtain surveillance for lesions that are recurrent, second primary or at distant sites.[2]

References: [2025 Head and Neck Cancer Version 2.2025]

Histiocytic Neoplasms Surveillance

NCCN Histiocytic Neoplasms Version 3.2024

Histiocytic neoplasms surveillance imaging includes **ANY** of the following:

1. Erdheim-Chester disease surveillance imaging includes **ANY** of the following:

   a. Fluorodoxyglucose (FDG)-positron emission tomography/computed tomography (PET/CT) every 3 to 6 months after starting therapy until stabilization of the disease, and as clinically indicated after 2 years.

   b. Organ specific imaging with CT (+ contrast) or MRI (± contrast) every 3 to 6 months until disease stabilization and then every 6 to 12 months

2. Langerhans cell histiocytosis surveillance imaging includes FDG-PET/CT , FDG-PET or CT/ magnetic resonance imaging (MRI) every 3 to 6 months for the first 2 years after completion of therapy, then **NO** more than annually (*__NOTE__: *For individuals who are asymptomatic with a single-site bone lesion, imaging surveillance can end after 1 year, with continued tracking of symptoms*)

3. Rosai-Dorfman disease (RDD), surveillance imaging includes **ANY** of the following: (*__NOTE__: *for individuals who are asymptomatic with a single-site bone lesion, imaging surveillance can end after 1 year, with continued tracking of symptoms*)

[2]Per the National comprehensive cancer network (NCCN) Guidelines for Head and Neck Cancers, there are no consensus guidelines for the surveillance imaging type, frequency or duration for locoregionally advanced disease. If an FDG PET/CT at 3 months post-treatment is negative, there are no data to support substantial benefit for further routine imaging when asymptomatic with negative exam. In the absence of multi-institutional prospective data, a tailored approach to surveillance with attention to tumor type, stage, prognostic factors, symptomatology and physical exam changes or restrictions is recommended.

a. FDG-PET/CT every 3 to 6 months after starting therapy until stabilization of disease

b. Organ specific imaging with CT (+ contrast) or MRI (± contrast) every 3 to 6 months until disease stabilization and then every 6 to 12 months

References: [2025 Histiocytic Neoplasms Version 3.2025]

Melanoma: Uveal Surveillance

Uveal melanoma surveillance imaging includes **ANY** of the following:

1. Low risk disease surveillance imaging every 12 months for 5 years or clinically as indicated, includes **ANY** of the following:
   a. Chest/abdomen/pelvis computed tomography (CT) (+ contrast)
   b. Magnetic resonance (MR) (+ contrast) or ultrasound of liver
2. Medium risk disease surveillance imaging every 6 to 12 months for 10 years, then as clinically indicated, includes **ANY** of the following:
   a. Chest/abdomen/pelvis CT (+ contrast)
   b. MR (+ contrast) or ultrasound of liver
3. High risk disease surveillance imaging every 3 to 6 months for 5 years, then every 6 to 12 months for 10 years, then clinically as indicated, includes **ANY** of the following:
   a. Chest/abdomen/pelvis CT (+ contrast)
   b. MR (+ contrast) or ultrasound of liver

References: [2025 Melanoma: Uveal Version 1.2025]

Pediatric Central Nervous System Cancers

Pediatric central nervous system cancer surveillance includes **ANY** of the following:

1. Medulloblastoma and **ANY** of the following:
   a. Risk is low or average (after completion of adjuvant/maintenance treatment) and **ALL** of the following:
      i. Brain magnetic resonance imaging (MRI) every 3 to 4 months for 2 years, then every 6 months for year 3, then clinically as indicated
      ii. Spine MRI (cervical, lumbar **AND** thoracic) every 6 months for 2 years, then clinically as indicated
   b. Risk is high or very high (after completion of adjuvant/maintenance treatment) and **ANY** of the following:

i. Brain MRI every 3 to 4 months for 2 years, then every 6 months for year 3, then clinically as indicated.

ii. Spine MRI (cervical, lumbar **AND** thoracic) every 3 to 4 month for 2 years, then annually for 3 years, then clinically as indicated

2. Pediatric diffuse high-grade glioma, image with brain MRI 2 to 6 weeks after radiation therapy, then every 2 to 3 months for year 1, then every 3 to 6 months indefinitely

References: [2025 Pediatric Central Nervous System Cancers Version 2.2025]

Soft Tissue Sarcoma Surveillance

Soft tissue sarcoma surveillance includes **ANY** of the following: (*__NOTE__: *Use contrast imaging; for long term surveillance to minimize radiation exposure,MRI may be substituted.*)

1. Desmoid tumor (aggressive fibromatosis) imaging surveillance includes computed tomography (CT) or magnetic resonance imaging (MRI) every 3 to 6 months for 3 years, then every 6 to 12 months thereafter
2. Extremity, trunk or head and neck, for long-term follow-up with **ANY** of the following:
    a. Long-term follow-up with **ALL** of the following:
        i. Chest CT imaging (- contrast) to detect asymptomatic distant recurrence
        ii. MRI for imaging of primary site
    b. Stage I tumors and **ALL** of the following:
        i. Chest CT imaging (- contrast) every 6 to 12 months
        ii. Post-operative baseline and periodic imaging of primary site with MRI or CT if MRI is **contraindicated or unavailable**.
    c. Stage II and III tumors and **ANY** of the following:
        i. Baseline and periodic imaging of primary site
        ii. Chest and other known sites of metastatic disease imaging (CT [- contrast] or X-ray) every 2 to 6 months for 2 to 3 years, then every 6 months to complete a total of 5 years, then annually.
        iii. Post-operative reimaging to assess the primary tumor site and rule out metastatic disease (MRI or CT if MRI is **contraindicated or unavailable**.
3. Retroperitoneal/intra-abdominal, after management of primary disease imaging surveillance includes chest/abdomen/pelvis CT or MRI every 3 to 6 months for 3 years, then every 6 months for the next 2 years, then annually.

References: [2025 Soft Tissue Sarcoma Version 1.2025]

Thymomas and Thymic Carcinomas Surveillance

Thymomas and thymic carcinomas surveillance after primary treatment includes **ANY** of the following:

1. R0 resection surveillance imaging with chest computed tomography (CT) (+ contrast) or magnetic resonance imaging (MRI) for **ANY** of the following:
    a. Thymic carcinoma every 6 to 12 months for 2 years, then annually until year 5
    b. Thymoma every 6 months for 2 years, then annually until year 10
2. R1 and R2 resection surveillance imaging with chest CT (+ contrast) or MRI for **ANY** of the following:
    a. Thymic carcinoma every 3 to 6 months for 2 years, then annually for 5 years
    b. Thymoma every 6 months for 2 years, then annually for 10 years
3. Locally advanced disease surveillance imaging with chest CT (+ contrast) or MRI for **ANY** of the following:
    a. Thymic carcinoma every 3 to 6 months for 2 years, then annually for 5 years
    b. Thymoma every 6 months for 2 years, then annually for 10 years

References: [2025 Thymomas and Thymic Carcinomas Version 2.2025]

Thyroid Carcinoma Surveillance

Thyroid carcinoma surveillance imaging includes **ANY** of the following:

1. Anaplastic carcinoma (stage IVC surveillance imaging includes computed tomography (CT) or magnetic resonance imaging (MRI) (+ contrast) of brain, neck, chest, abdomen and pelvis at frequent intervals as clinically indicated (*__NOTE__: *consider fluorodeoxyglucose-positron emission tomography (FDG-PET)/CT 3 to 6 months after initial therapy*)
2. Medullary carcinoma surveillance imaging includes **ANY** of the following:
    a. MRI of whole body, if calcitonin levels are very elevated 150 pg/ml or more.
    b. Calcitonin level is 150 pg/ml or more: surveillance with CT or MRI (+ contrast) of the neck, chest, and liver, as clinically indicated
    c. FDG-PET/CT or Ga-68 DOTATE or MRI (+ contrast) of the neck, chest, abdomen with liver protocol, based on calcitonin/carcinoembryonic antigen (CEA) doubling time

References: [2025 Thyroid Carcinoma Version 1.2025]

CT IAC, Mastoid, Orbits, Sella and Temporal Bone Summary of Changes

CT IAC, Mastoid, Orbits, Sella, and Temporal Bone had the following version changes from 2024 to 2025:

- Added the following to keep in line with current evidence:
  - "Glomerular filtration rate" to "Renal impairment" under Contraindications
  - "Recurrent" under "Bell's palsy" per ACR
  - "Vertigo and **EITHER** of the following:" as new indication per ACR
- Changed the following to keep in line with current evidence:
  - Change in wording for "Peri-procedural" indication
  - "**NO** improvement at 4 months" to "2 to 4 months" per ACR under Bell's Palsy
  - "Extracranial" to "Intracranial" under "Mastoiditis" per EBM
  - "Tinnitus is unilateral, non-pulsatile tinnitus **AND** MRI is **contraindicated or unavailable**" to "Pulsatile tinnitus is known **AND** otoscopic exam demonstrates a suspected retrotympanic lesion." per ACR
- Removed the following as current evidence no longer supports the indication:
  - "Asymmetric" from "sensorineural hearing loss" per ACR
  - "Optic neuritis, MRI is **contraindicated or unavailable**" as it is covered under "Orbital inflammatory disease"
  - "Peripheral vertigo is suspected" as it is covered under "Vertigo and EITHER of the following:
  - "Prior...is non-diagnostic or indeterminate" from each guideline section as it is too broad an indication
  - "Resolution is slow" from under "Bell's palsy" per ACR
  - "Systemic illness is suspected or known." from under "Mastoiditis" per ACR

CT Internal Auditory Canal, Mastoid, Orbits, Sella, Temporal Bone Procedure Codes

Table 1. CT Orbits, Temporal Associated Procedure Codes

CODE	DESCRIPTION
70480	Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material
70481	Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; with contrast material(s)
70482	Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material, followed by contrast material(s) and further sections

CT Internal Auditory Canal, Mastoid, Orbits, Sella, Temporal Bone Definitions

Aberrant is a deviation from the normal or expected course, structure or function.
Acute refers to initial diagnosis, up to 4 weeks.
Amblyopia is a neuro-developmental abnormality leading to decreased vision in one or both eyes due to insufficient stimulation during the critical period of visual development.
Anophthalmia is a rare congenital condition characterized by the complete absence of one or both eyes.
Apoplexy is defined as the abrupt and sometimes catastrophic hemorrhagic infarction occurring in the pituitary gland.
Audiogram/Audiometric testing is a graphic representation of the relation of vibration frequency and the minimum sound intensity for hearing.
Auricular protrusion is an ear abnormality that causes the ear to stand out abnormally from the head.
Bell's palsy an acute, idiopathic, self-limited, typically monophasic paralysis of the face caused by dysfunction of the facial nerve (cranial nerve VII) with no detectable cause.
Beta-2 transferrin test is a laboratory assay used to detect cerebrospinal fluid (CSF) in cases of suspected CSF rhinorrhea or otorrhea.
Cerebrospinal fluid (CSF) is a colorless liquid that is comparable to serum, is secreted from the blood into the lateral ventricles of the brain, and serves chiefly to maintain uniform pressure within the brain and spinal cord.
Cerebrospinal fluid (CSF) leak is a leak of cerebrospinal fluid that results from a hole or tear in the dura (the outermost layer of the meninges).
Cholesteatoma is a benign but locally destructive cystic mass of keratinizing squamous epithelium that can erode bone structures in the middle ear and mastoid.
Chondrosarcoma is a type of cancer that forms in bone cartilage. It usually starts in the pelvis (between the hip bones), the shoulder, the ribs or at the ends of the long bones of the arms

and legs. A rare type of chondrosarcoma called extraskeletal chondrosarcoma does not form in bone cartilage. Instead, it forms in the soft tissues of the upper part of the arms and legs. Chondrosarcoma can occur at any age but is more common in people older than 40 years. It is a type of bone cancer.

Chordoma is a type of bone cancer that usually starts in the lower spinal column or at the base of the skull.

Chronic refers to 3 months or more.

Cochlear implant is a small electronic device that electrically stimulates the cochlear nerve.

Computed tomography (CT) is an imaging test that uses X-rays to computer analysis to generate cross sectional images of the internal structures of the body that can be displayed in multiple planes.

Congenital is a condition or trait present from birth.

Dehiscence the separation or splitting open of layers of a surgical wound or anatomical structure.

Diplopia is a disorder of vision in which two images of a single object are seen (as from unequal action of the eye muscles).

Dix-Hallpike maneuver is a diagnostic test for Benign Paroxysmal Positional Vertigo (BPPV). It can also determine which ear is affected.

Dysphagia is difficulty with swallowing or the sensation of food getting stuck in the esophagus.

Enophthalmos is the term for when the eyes are sunken in.

Epidural abscess is an infection that forms in the space between the skull bones and your brain lining or the bones of the spine and the lining membrane of the spinal cord.

Epley maneuver is a canalith repositioning procedure used to treat benign paroxysmal positional vertigo (BPPV) of the posterior semicircular canal, involving a series of head and body movements to relocate otoconia from the semicircular canals back into the vestibule.

Exophthalmos (proptosis) is the abnormal protrusion or bulging of the eyeball.

Glaucoma is a group of progressive optic neuropathies characterized by optic disc excavation (cupping) and vision loss, often associated with elevated intraocular pressure (IOP) but can occur with normal IOP.

Head Thrust Test also known as the head impulse test, is a clinical maneuver used to assess the function of the vestibulo-ocular reflex (VOR) and diagnose vestibular disorders such as vestibular neuritis and labyrinthitis.

Hemorrhage is a copious or heavy discharge of blood from the blood vessels.

Macular degeneration is an eye disease that can cause blurred central vision. It occurs when the macula, the part of the eye that controls sharp, straight-ahead vision, is damaged by aging.

Magnetic resonance imaging (MRI) is a non-invasive diagnostic technique that produces computerized images of internal body tissues and is based on nuclear magnetic resonance of atoms within the body induced by the application of radio waves.

Mastoiditis is an inflammation of the mastoid bone, which is located behind the ear. It is a complication of a middle ear infection (otitis media) and occurs when bacteria spread from the infected middle ear to the mastoid bone.
Microphthalmia is a condition characterized by abnormally small eyes with reduced axial length, typically at least 2 standard deviations below the mean for the age.
Myringotomy is an incision of the tympanic membrane.
Neuropathy is damage, disease or dysfunction of one or more nerves, especially of the peripheral nervous system, that is typically marked by burning or shooting pain, numbness, tingling, muscle weakness or atrophy It is often degenerative and is usually caused by injury, infection, disease, drugs, toxins or vitamin deficiency.
Nuclear cisternography is an imaging study to diagnose problems with the flow of spinal fluid. A lumbar puncture is preformed and a radioisotope is injected into the spinal fluid. A nuclear scan is preformed 1 to 6 hours after getting the injection, followed by a scan 24 hours later.
Nystagmus is a visual condition in which the eyes make repetitive, uncontrolled movements. These movements often result in reduced vision and depth perception and can affect balance and coordination; and can occur from side to side, up and down, or in a circular pattern.
Pediatric approximate ages are defined by the US Department of Health (USDH), the Food and Drug Administration (FDA), and the American Academy of Pediatrics (AAP) as the following:

- Infancy, between birth and 2 years of age
- Childhood, from 2 to 12 years of age
- Adolescence, from 12 to 21 years of age, further defined by the AAP into:
    1. Early (ages 11–14 years)
    2. Middle (ages 15–17 years),
    3. Late (ages 18–21 years)
    4. Older ages may be appropriate for children with special healthcare needs.

Petrous apex lesion is a cyst or tumor that develops in the petrous apex of the skull. The petrous apex is a part of the temporal bone that's located in the center of the head, about two to three inches from the outer ear.
Ophthalmoparesis refers to weakness or paralysis of one or more extraocular muscles which are responsible for eye movements.
Ophthalmoplegia is paralysis of the extraocular muscles that control the movements of the eye. Ophthalmoplegia usually involves the third (oculomotor), fourth (trochlear) or sixth (abducens) cranial nerves. Double vision is the characteristic symptom in all three cases.
Optic neuritis is inflammation of the optic nerve.
Osseous is consisting of bone.

Osteomyelitis is an infectious, inflammatory disease of bone. It is often painful, bacterial in origin and may result in the death of bone tissue.
Otitis media is inflammation of the middle ear marked especially by pain, fever, dizziness and abnormalities in hearing.
Otorrhea is drainage of liquid from the ear.
Papilledema is swelling of the optic nerve head due to increased intracranial pressure (ICP), which can lead to vision loss if not treated promptly.
Persistent stapedial artery (PSA) is a rare vascular anomaly in which the stapedial artery remains in the fetus's ear after the first ten weeks of pregnancy. The stapedial artery is a primitive vessel that connects the branches of the external carotid artery to the internal carotid artery. It normally atrophies during the third month of fetal life.
Proptosis (exophthalmos) is the abnormal protrusion or bulging. of the eyeball.
Saccade is a quick, jerky eye movement that redirects gaze. Saccades can involve the eyes alone or both the eyes and the head.
Sella is a depression in the sphenoid bone, containing the pituitary gland.
Sensorineural hearing loss is hearing loss that occurs following inner ear damage.
Squamous cell carcinoma (SCC) is carcinoma that is made up of or arises from squamous cells (stratified epithelium that consists at least in its outer layers of small scale like cells) and usually occurs in areas of the body exposed to strong sunlight over many years.
Strabismus is a disorder in which both eyes do not line up in the same direction, therefore, they do not look at the same object at the same time and is caused by an imbalance of the muscles of the eyeball.

Subdural empyema is a rare, serious infection of the brain that occurs when pus collects between the dura mater and arachnoid mater. It's also known as a subdural abscess.
Tinnitus is a sensation of noise (such as a ringing or roaring) that is typically caused by a bodily condition (such as a disturbance of the auditory nerve or wax in the ear) and usually is of the subjective form which can only be heard by the one affected.
Tympanostomy tube, also known as an ear tube, is a small, hollow tube that is surgically inserted into the eardrum. The tube's purpose is to prevent fluid from building up in the middle ear and to allow air into the middle ear.
Vertigo is a sensation of motion or spinning that is often described as dizziness. People with vertigo feel as though they are actually spinning or moving, or that the world is spinning around them.

CT Internal Auditory Canal, Mastoid, Orbits, Sella, Temporal Bone References

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Disclaimer section

Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

Payment

The use of these clinical guidelines does not provide authorization, certification, explanation of benefits, or guarantee of payment; nor do the guidelines substitute for, or constitute, medical advice. Federal and State law, as well as member benefit contract language (including definitions and specific contract provisions/exclusions) take precedence over clinical guidelines and must be considered first when determining eligibility for coverage. All final determinations on coverage and payment are the responsibility of the health plan. Nothing contained within this document can be interpreted to mean otherwise.

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National and Local Coverage Determination (NCD and LCD)

NOTICE
To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to https://www.cms.gov/medicare-coverage-database/search.aspx.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.

CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.

In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

For Internal Use Only:

11248 11249 11253 11282 11325 11328 11333 11349 11350 11351 11352 11354 11355 11356 11358 11359 11360 11361 11362 11365 11366 11367 11368 11369 11370 11374 11375 11394 11395 11396 11565