EVOLENT CLINICAL GUIDELINE 009 FOR SINUS MAXILLOFACIAL CT, LIMITED OR LOCALIZED FOLLOW UP SINUS CT

Guideline or Policy Number: Evolent_CG_009	**Applicable Codes**	
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Original Date: September 1997	**Last Revised Date:** June 2024	**Implementation Date:** January 2025

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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.

Purpose

Sinus/Maxillofacial Computed tomography (CT) primarily provides information about bony structures but may also be useful in evaluating soft tissue masses. It can help document the extent of facial bone fractures, facial infections, masses and abscesses. The primary role of CT scans is to aid in the diagnosis and management of recurrent and chronic sinusitis, or to define the anatomy of the sinuses prior to surgery.

Special Note

A single authorization for CPT codes 70486, 70487, 70488, or 76380 includes imaging of the entire maxillofacial area, including face and sinuses. Multiple authorizations are not required.

See **Legislative Requirements** for specific mandates in the State of Washington.

INDICATIONS

Sinusitis

Rhinosinusitis

- Clinical suspicion of fungal infection [1,2,3]
- Clinical suspicion of complications, such as [3,4]:
    - Preseptal, orbital, or intracranial infection [5]
    - Osteomyelitis
    - Cavernous sinus thrombosis
- Acute (< 4 weeks) or subacute (4-12 weeks) sinusitis (presumed infectious)

- Not responding to medical management including 2 or more courses of antibiotics in the past 3 months

- Recurrent acute rhinosinusitis with 4 or more annual episodes without persistent symptoms in-between
- Chronic recurrent sinusitis [6] (> 12 weeks)
  - Not responding to medical management* and with at least two of the following:
    - Mucopurulent discharge
    - Nasal obstruction and congestion
    - Facial pain, pressure, and fullness
    - Decreased or absent sense of smell
  - With nasal polyps especially unilateral polyps, concern for polyps extending outside of the nasal cavity, or other atypical presentations [6]

***NOTE:** Medical management for chronic sinusitis includes nasal saline irrigation and/or topical intranasal steroids. In chronic sinusitis, repeat imaging is not necessary unless clinical signs or symptoms have changed. Biologics such as dupilumab can be used to treat chronic sinusitis with nasal polyposis.

- Allergic Rhinitis – sinus imaging usually not indicated unless there are signs of complicated infection, signs of neoplasm, or persistence of symptoms/chronic rhinosinusitis despite treatment (including antihistamines) and is a possible surgical candidate [7]
- If suspected as a cause of poorly controlled asthma (endoscopic sinus surgery improves outcomes) [8]
- To evaluate in the setting of unilateral nasal polyps or obstruction [6]

NOTE: Imaging may be indicated in those predisposed to complications, including diabetes, immune-compromised state, immotile cilia disorders, or a history of facial trauma or surgery.

Pediatric Rhinosinusitis [9]

- Persistent or recurrent sinusitis not responding to treatment (primarily antibiotics, treatment may require a change of antibiotics)
- Suspicion of orbital or central nervous system involvement (e.g., swollen eye, proptosis, altered consciousness, seizures, nerve deficit)
- Clinical suspicion of a fungal infection (more common in immunocompromised children)

Infection

Suspected

- Osteomyelitis (after x-rays and MRI cannot be performed) [10]
- Abscess based on clinical signs and symptoms of infection

Known or Suspected Structural Abnormalities

Deviated Nasal Septum, Polyp, or Other Structural Abnormality Seen on Direct Imaging/Visualization

- Causing significant airway obstruction **AND**
- Imaging is needed to plan surgery or determine if surgery is appropriate [11,12]

Suspected Sinonasal Mass

- Based on exam, nasal endoscopy, or prior imaging [6,11]

Facial Mass [13,14]

- Present on physical exam and remains non-diagnostic after x-ray or ultrasound is completed, **OR**
- Known or highly suspected head and neck cancer on examination

Facial Trauma [15,16,17,18]

- Serious facial injury with concern for fracture on exam (e.g., bony step off, ecchymosis, nasal deformity, depression, malocclusion)
- **Note**: x-rays should be performed for isolated dental/mandibular injury
- Suspected facial bone fracture with indeterminate x-ray
- For further evaluation of a known fracture for treatment or surgical planning

Cranial Nerve Abnormalities

Trigeminal Neuralgia/Neuropathy [1]

*If MRI is contraindicated or cannot be performed (for evaluation of the extracranial nerve course)

- If atypical features (i.e., bilateral, hearing loss, dizziness/vertigo, visual changes, sensory loss, numbness, pain > 2 min, pain outside trigeminal nerve distribution, progression)

Anosmia or Dysosmia [11,19]

- When persistent, of unknown origin and nasal endoscopy has been performed for evaluation of peripheral sinonasal disease and/or bone-related pathology

Other Indications

Refractory Asthma

- These patients benefit from medical treatment and surgery together [8,20]

CSF Rhinorrhea

- When looking to characterize a bony defect [11]

Note: For intermittent leaks and complex cases, consider CT/MRI/Nuclear Cisternography. There should be a high suspicion or confirmatory CSF fluid laboratory testing (Beta-2 transferrin assay)

Salivary Glands

- Sialadenitis (infection and inflammation of the salivary glands) with indeterminate ultrasound, bilateral symptoms or concern for abscess [21]
- Suspected or known salivary gland stones [22]

Osteonecrosis of Jaw [23]

- Possible etiologies: bisphosphonate treatment, dental procedures, Denosumab, radiation treatment

NOTE: MRI should be reserved for those patients who have soft tissue extension of the disease.

Prior to Bone Marrow Transplant (BMT)

- For initial workup

Procedural Evaluations

Post-operative/Procedural Evaluation

- When imaging, physical, or laboratory findings indicate surgical or procedural complications

Pre-operative/Procedural Evaluation

- Pre-operative evaluation for a planned surgery or procedure

Further Evaluation of Indeterminate Findings

Unless follow up is otherwise specified within 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)

Cone Beam CT [11,24,25]

- Can be used in the evaluation of rhinosinusitis for the above-mentioned indications and for surgical planning/pre-operative evaluation in non-neoplastic indications.

*Cone beam CT is not approvable in the evaluation of dentomaxillofacial imaging

Genetics and Rare Syndromes

Granulomatosis

Granulomatosis with polyangiitis (Wegener's granulomatosis) disease [26]

Combination Studies

Neck/Face CT or MRI and PET

- Neck/Face CT or MRI is indicated **in addition to PET** for 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

Sinus CT/Chest CT

- Granulomatosis with polyangiitis (Wegener's granulomatosis) disease (GPA)

Sinus CT/Chest CT/Abdomen and Pelvis CT/Brain MRI

- Prior to Bone Marrow Transplant

LEGISLATIVE REQUIREMENTS

State of Washington [27]

Health Technology Clinical Committee 20150515A

Number and Coverage Topic:

20150515A – Imaging for Rhinosinusitis

HTTC Coverage Determination:

Imaging for Rhinosinusitis is a **covered benefit with conditions** consistent with the criteria identified in the reimbursement determination.

HTCC Reimbursement Determination:

Limitations of Coverage

Imaging with Sinus Computed Tomography (CT) is covered in the context of rhinosinusitis for the following:

- Red Flags* OR
- Persistent Symptoms** > 12 weeks AND failure of medical therapy; OR
- Surgical planning
- Repeat scanning is not covered except for Red Flags or Surgical Planning

Magnetic Resonance Imaging (MRI) of the sinus is covered in the context of rhinosinusitis for the following:

- As above for sinus CT AND < 18 years of age OR pregnant

***Red Flags in the setting of Rhinosinusitis**: (From American Academy of Otolaryngology – Head and Neck Surgery (AAO-HNS))

- Swelling of orbit
- Altered mental status
- Neurological findings
- Signs of meningeal irritation
- Severe headache

- Signs of intracranial complication, including, but not limited to:
    - Meningitis,
    - Intracerebral abscess
    - Cavernous sinus thrombosis
- Involvement of nearby structures, including, but not limited to:
    - Periorbital cellulitis

****Persistent Symptoms defined as ≥ two of the following:** (From AAO-HNS)

- Facial pain-pressure-fullness
- Mucopurulent drainage
- Nasal obstruction (congestion)
- Decreased sense of smell

Non-Covered Indicators

- Imaging of the sinus for rhinosinusitis using X-ray OR Ultrasound is not covered.

CODING AND STANDARDS

Coding

CPT Codes

70486, 70487, 70488, 76380, +0722T

Applicable Lines of Business

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

BACKGROUND

Rhinosinusitis

Society consensus recommendation is not to order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhinosinusitis. Viral infections cause the majority of acute rhinosinusitis and only 0.5 percent to 2 percent progress to bacterial infections. Most acute rhinosinusitis resolves without treatment in two weeks.

Uncomplicated acute rhinosinusitis is generally diagnosed clinically and does not require a sinus CT scan or other imaging. Antibiotics are not recommended for patients with uncomplicated acute rhinosinusitis who have mild illness and assurance of follow-up. If a decision is made to treat, amoxicillin with clavulanate should be first-line antibiotic treatment for most acute rhinosinusitis. If improvement is not demonstrated, it is recommended to change antibiotics to either high-dose amoxicillin plus clavulanate, doxycycline, a fluoroquinolone such as moxifloxacin or levofloxacin, or a dual treatment of clindamycin plus a third-generation oral cephalosporin. [3]

COVID-19

Anosmia and dysgeusia have been reported as common early symptoms in patients with COVID-19, occurring in greater than 80 percent of patients. For isolated anosmia, imaging is typically not needed once the diagnosis of COVID has been made, given the high association. As such, COVID testing should be done prior to imaging. [28,29,30]

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 wight limit/dimensions of MRI machine

POLICY HISTORY

Summary

Date	Summary
June 2024	● Updated references ● Updated background ● Added contraindications and preferred studies to background ● Added to initial workup prior to Bone Marrow Transplant (BMT) ● Clarified anosmia indication ● Added legislative requirements for WA State
May 2023	● Updated references ● Updated background ● Added: ○ Nasal polyps as an indication for chronic recurrent sinusitis

Date	Summary
	○ Cone Beam CT (CBCT) ○ Can be used in the evaluation of rhinosinusitis for the above-mentioned indications and for surgical planning/pre-operative evaluation in non-neoplastic indications. ○ Cone beam CT is not approvable in the evaluation of dentomaxillofacial imaging ○ Section on further evaluation of indeterminate or questionable findings on prior imaging ○ General Information moved to beginning of guideline with added statement on clinical indications not addressed in this guideline ○ Section on CSF rhinorrhea to characterize bony defect ○ Biologics such as dupilumab for chronic sinusitis with nasal polyposis ● Clarified: ○ Acute (< 4 weeks) or subacute (4-12 weeks) sinusitis (presumed infectious) - not responding to medical management including 2 or more courses of antibiotics in the past 3 months ○ When CT would be indicated for anosmia/dysosmia and removed when MRI is contraindicated ○ Serious facial injury with concern for fracture on exam (e.g. bony step off, ecchymosis, nasal deformity, depression, malocclusion) ○ Note: x-rays should be performed in isolated dental/mandibular injury ○ There should be a high suspicion of CSF leak or confirmatory CSF fluid laboratory testing (Beta-2 transferrin assay) ● Removed: ○ When MRI is contraindicated or if bony involvement suspected from suspected sinonasal mass ○ Lesion seen on x-ray or other study – covered in new indication

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Clinical Guideline Review Committee

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