

Evolut Clinical Guideline ~~0092047~~ for Sinus Maxillofacial Computed Tomography (CT), ~~Limited or Localized Follow Up Sinus CT~~

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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.*

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, or 70488, or 76380 includes imaging of the entire maxillofacial area, including face and sinuses. Multiple authorizations are not required.
- Cone Beam CT is an alternative mechanism to acquire imaging data of the maxillofacial anatomic area often obtained at the point of care and can be used for any of the indications below.
- CT (or Cone Beam) imaging of dental diagnoses (such as tooth abscess, dental caries, wisdom tooth removal, dental implant planning) without an associated medical diagnosis is **NOT** indicated
- See legislative language for specific mandates in the State of Washington

INDICATIONS

Infection Sinusitis and Inflammation

Rhinosinusitis

- Clinical suspicion of any type of fungal infection of the nasal cavity and/or paranasal sinuses including ⁽¹⁾:
 - Invasive fungal infection
 - Allergic fungal sinusitis
 - Mycetoma (“fungus ball”)
- Clinical suspicion of ~~complications, such as a complication~~ of rhinosinusitis including any ONE of the following ⁽¹⁾:
 - ~~Preseptal, Any facial or orbital, or swelling~~ (including forehead and upper jaw)
 - Any visual deficits or eye movement abnormalities
 - Any cranial nerve deficits
 - Suspected intracranial infection
 - Suspected Osteomyelitis ⁽²⁾
 - Suspected cavernous sinus thrombosis

NOTE: Prior medical therapy is **NOT** required if there is a suspected complication of rhinosinusitis
- ~~Acute (≤ 4 weeks) or subacute (4-12 weeks) sinusitis (presumed infectious) duration)~~ rhinosinusitis
 - ~~Not responding to medical management (see **Background** for details regarding medical management) including 2 or more courses of antibiotics in the past 3 months~~
- Recurrent acute rhinosinusitis with ALL of the following:
 - 4 or more annual episodes of acute sinusitis without persistent symptoms or abnormal exam findings in-between acute episodes ⁽³⁾
 - Not responding to medical management including 2 or more courses of antibiotics
- Subacute (4-12 weeks duration) rhinosinusitis ⁽³⁾
 - Not responding to medical management including 2 or more courses of antibiotics
- ~~Chronic recurrent sinusitis~~ ⁽⁶⁾ rhinosinusitis (> 12 weeks)
- ~~Not responding to medical management* and duration)~~ with ALL of the following ⁽³⁾
 - Not responding to medical management including 2 or more courses of antibiotics
 - at least two of the following symptoms:
 - Mucopurulent discharge (anterior and/or posterior)
 - Nasal obstruction and congestion
 - Facial pain, pressure, and fullness
 - Decreased or absent sense of smell

Immune System Deficiency ⁽³⁾

- Rhinosinusitis in a patient with a documented condition with relative immunodeficiency (such as IgG deficiency, IgA deficiency, severe combined immunodeficiency (SCID), cystic fibrosis, immotile cilia disorders, HIV, undergoing chemotherapy, poorly controlled diabetes)

Rhinosinusitis from a Dental Source (Odontogenic infection) ⁽⁴⁾

- Suspected paranasal sinus infection (typically a unilateral maxillary sinus infection) from a nearby dental source

NOTE: CT (or Cone Beam) imaging of a dental diagnoses (such as tooth abscess, dental caries, wisdom teeth removal, dental implant planning) without an associated medical diagnosis is NOT indicated ⁽¹⁾

Nasal Polyposis ⁽³⁾

- Nasal polyps (unilateral or bilateral) noted on physical exam and/or endoscopy
- History of prior treatment of nasal polyps especially unilateral polyps, concern for (medical or surgical) and suspicion for recurrence of nasal polyps based on symptoms (such as nasal obstruction, loss of sense of smell/taste) 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 have changed. Biologics such as dupilumab can be used to treat chronic sinusitis with nasal polyposis

Allergic Rhinitis ^(3,5)

- Advanced imaging usually not for allergic rhinitis is ONLY indicated unless there are signs with any ONE of complicated infection, signs of neoplasm the following:
- Acute, subacute, or persistence of symptoms/chronic rhinosinusitis despite treatment (not responding to medical management including antihistamines) and is a possible surgical candidate ⁽⁷⁾ 2 or more courses of antibiotics
- If suspected Structural abnormality (such as nasal septal deviation, enlarged inferior turbinates) visible on nasal exam and/or nasal endoscopy and surgical correction is planned OR is being considered
- Nasal polyps (unilateral or bilateral) noted on physical exam including endoscopy

Refractory Reactive Airway Disease (Asthma)

- Severe, refractory asthma (with concurrent chronic rhinosinusitis and invasive therapy (Such as endoscopic sinus surgery improves outcomes) ⁽⁸⁾, balloon sinuplasty) for rhinosinusitis is being considered to aid in the management of both rhinosinusitis and asthma ⁽³⁾

Salivary Gland Infection/Inflammation (Sialadenitis) ^(6,7)

- After prior indeterminate or abnormal imaging
- Clinical concern for abscess formation (such as facial 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 ~~To evaluate in the setting of unilateral nasal polyps or obstruction~~ ⁽⁶⁾

with Polyangiitis (GPA) (Formally Wegener's Granulomatosis) ⁽⁸⁾

- 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

Osteonecrosis of in those predisposed to complications, including the Mandible / Maxilla ⁽⁹⁾

- Clinical concern for osteonecrosis of the maxilla and/or mandible especially with known predisposing conditions (such as prior radiation therapy, dental procedures, uncontrolled diabetes, immune-compromised state, immotile cilia disorders, or a history of facial trauma or surgery-bisphosphonate medications)

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 CT imaging is indicated when surgical correction is planned **OR** is being considered for any **ONE** of the following possible structural abnormalities:~~
 - ~~○ Nasal septal deviation~~
 - ~~○ Nasal septal perforation~~
 - ~~○ Nasal valve collapse~~
 - ~~○ Nasal polyps (unilateral or bilateral)~~
 - ~~○ Nasal dorsal hump deformity~~
 - ~~○ Saddle Nose Deformity~~
 - ~~○ Enlarged inferior turbinate(s) – after failed prior medical therapy with topical intranasal steroids, antihistamines, and/or allergy immunotherapy~~
 - ~~○ Concha bullosa (air cell formation within a nasal turbinate bone causing nasal obstruction)~~
 - ~~○ Choanal stenosis or choanal atresia~~
 - ~~○ Pyramidal aperture stenosis~~
 - ~~○ Cleft palate/Cleft lip~~
 - ~~○ Facial pits/clefts~~
 - ~~○ Protruding eyes (exophthalmos) – often associated with Grave’s Thyroid Disease~~

Sinonasal/Facial Mass or Neoplasm

- ~~● Based Known or suspected sinonasal/facial mass/neoplasm based on **ONE** (or more) of the following:~~
 - ~~○ Physical exam~~
 - ~~○ Nasal endoscopy~~
 - ~~○ Prior imaging ^(1,3)~~
 - ~~○ Suspicion of recurrence following surgical excision~~
- ~~● Further evaluation of a known sinonasal/facial mass/neoplasm visualized on exam, nasal endoscopy, or prior imaging- ^(6,11)~~

~~Facial Mass~~ ^(13,14)

- Present on physical exam ~~Known or suspected salivary gland neoplasm (parotid, submandibular, and remains non-diagnostic/~~ or sublingual gland) ~~after x-ray or prior indeterminate or abnormal imaging~~

NOTE: ~~Ultrasound is completed,~~ **OR** 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 ~~Known~~

- Suspected or highly known malignancy of the head and/or neck with any ONE of the following ⁽¹⁰⁾:
 - For initial staging, restaging, or suspected recurrence of head and neck cancer ~~on examination~~
 - 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)

NOTE: CT/MRI of Neck, Orbit, or PET may also be indicated

Facial Trauma ^(11,12) ¶

- Serious facial injury with concern for History of recent facial trauma and any ONE of the following signs / symptoms:
 - Double vision (diplopia)
 - Eye movement abnormalities
 - Sunken eye (enophthalmos)
 - Protruding eye (exophthalmos)
 - Persistent clear nasal drainage (possible CSF leak)
 - Nasal deformity
 - Facial paresthesia
 - Inability to open jaw (trismus)
 - Malocclusion (teeth not fitting together correctly)
 - Palpable bony defect (step off)

Nasal fracture on exam (e.g., bony step-off, ecchymosis, nasal deformity, depression, malocclusion)

- **Note:** ~~x-rays should be performed~~ CT imaging for isolated dental/mandibular injury nasal fracture is indicated with ALL of the following:
 - Visible / palpable deformity of the external nose OR disruption of the internal structures of the nasal cavity (such as septal deviation)

- Surgical correction is planned OR is being considered
- Suspected facial bone fracture with prior indeterminate x-ray or abnormal imaging
- ~~For~~ Further evaluation of a known facial fracture for treatment ~~or surgical~~ planning

Cranial Nerve Abnormalities

Anosmia, Hyposmia, or Dysosmia (CN I) ^(1,13,14)

- Advanced imaging for anosmia (complete loss of smell), hyposmia (reduced sense of smell) or dysosmia (abnormal sense of smell) is indicated with ALL of the following:
 - Persistent symptoms (generally considered to be 4 weeks or more)
 - Unknown origin (if related to known concurrent rhinosinusitis, the indication for advanced imaging should meet the specific rhinosinusitis criteria)
 - Nasal endoscopy completed with indeterminate or abnormal findings OR nasal endoscopy documented as unavailable

Trigeminal Neuralgia/Neuropathy (CN V) ⁽¹⁵⁾

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

- ~~Suspected trigeminal neuralgia/neuropathy with atypical features requiring evaluation of the extracranial nerve course}~~
- ~~If atypical features (i.e., of the trigeminal nerve (such as bilateral involvement, hearing loss, dizziness/vertigo, visual changes, sensory loss, numbness, pain > 2 min, pain outside trigeminal nerve distribution, progression)~~

~~Anosmia or Dysosmia~~ ^(14,19)

~~When persistent, of unknown origin and nasal endoscopy has been~~ **NOTE:** MRI of the brain (or CT of the head if MRI is contraindicated or not available) with complete imaging of the entire course of the trigeminal nerve is the preferred initial study for trigeminal neuralgia/neuropathy

Facial Nerve Paresis/Bell's Palsy/Hemifacial Spasm (CN VII) ^(16,17)

If MRI is contraindicated or cannot be performed ~~for~~

- Facial nerve paresis/ Bell's palsy / hemifacial with atypical features requiring evaluation of peripheral sinonasal disease and/or bone-related pathology 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)

~~Other Indications~~ **NOTE:** MRI Brain with internal auditory canal (IAC) (or CT Temporal Bone 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

Asthma

~~These patients benefit from medical treatment and surgery together~~ ^(8,20)

Cerebral Spinal Fluid (CSF Rhinorrhea)

- ~~• When looking to characterize a bony defect~~ ⁽¹⁴⁾
- Note: For intermittent leaks and complex cases, consider CT/MRI/Nuclear Cisternography. There should be a high CT sinus / Maxillofacial imaging for possible CSF rhinorrhea is indicated with any ONE of the following ⁽¹⁾:
 - High index of suspicion or confirmatory CSF fluid laboratory testing (of CSF leak based on clinical evidence (such as consistent nasal leaking, worse leaking with provocative maneuvers (Valsalva), positive Beta-2 transferrin assay) of the leakage)
 - Prior imaging (such as MRI, nuclear medicine imaging) suggesting bony defect/lesion contributing to suspected/known CSF leak

Epistaxis (Nosebleeds)

- Advanced imaging for epistaxis is ONLY indicated with any ONE of the following:
 - Mass / lesion visible on nasal exam and/or nasal endoscopy
 - Structural abnormality (such as nasal septal deviation, nasal septal perforation) visible on nasal exam and/or nasal endoscopy and surgical correction is planned OR is being considered

PREOPERATIVE OR POSTOPERATIVE ASSESSMENT EVALUATION

When not otherwise specified in the guideline:

Preoperative Evaluation: ~~for a planned surgery or procedure~~

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⁾ CT sinus / maxillofacial is indicated prior to ANY of the following specific procedures:
 - ANY Any procedure with planned intra-operative surgical navigation (computer guidance to navigate the anatomic structures of the nasal cavity or paranasal sinuses)
 - Pituitary gland procedures (a trans nasal approach to the pituitary gland is typically used)

- Maxillo-mandibular advancement (or other similar procedures with surgical bone manipulation) for the management of obstructive sleep apnea (OSA)
- Eustachian tube procedures (such as balloon dilation)
- ~~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)~~
- Imaging of the area requested is needed to develop a surgical plan

For initial workup

~~Procedural Evaluations~~ Post-operative Evaluation:

- When imaging, physical, or laboratory findings indicate surgical or procedural complications
- 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 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 POLYANGITIS (WEGENER'S GRANULOMATOSIS) DISEASE~~

~~(26) OTHER COMBINATION STUDIES WITH SINUS MAXILLOFACIAL 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/Face/Sinus/Orbit CT and PET~~

- ~~Suspected or known malignancy of the head and neck with any **ONE** of the following ⁽¹⁰⁾:
Neck/Face CT or MRI is indicated **in addition to PET** for Head and Neck Cancer~~
 - ~~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)~~

~~Sinus/Maxillofacial/Neck/Chest/Abdomen CT~~

- ~~Advanced imaging for Granulomatosis with polyangiitis (formally known as Wegener's granulomatosis) disease (GPA) ⁽⁸⁾~~

Sinus/Chest/Abdomen and Pelvis CT and Brain MRI

- Prior to Bone Marrow Transplantation

LEGISLATIVE LANGUAGE

Washington

20150515A – Imaging for Rhinosinusitis ⁽¹⁸⁾

Washington State Health Care Authority Technology Assessment
Health Technology Clinical Committee

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 \geq 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 to 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 within two weeks. Uncomplicated acute rhinosinusitis is generally diagnosed clinically and does not require a sinus CT scan or other imaging. Antibiotics are not recommended

- Appropriate medical therapy for patients acute, subacute, or chronic rhinosinusitis includes ANY of the following:
 - Topical nasal saline (irrigation, spray, or infused 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 a mechanical device)
 - Topical nasal steroids (e.g., Fluticasone (Flonase®), Mometasone (Nasonex®), Triamcinolone (Nasacort®))
 - Topical antihistamine (e.g., Azelastine (Astelin®))
 - Topical decongestants (oxymetazoline (Afrin®), phenylephrine (Neosynephrine®))
 - Oral decongestants (e.g., pseudoephedrine (Sudafed®), phenylephrine)
 - Oral antihistamines (e.g., Fexofenadine (Allegra®), Loratadine (Claritin®), Cetirizine (Zyrtec®), Levocetirizine (Xyzal®))
 - Oral leukotriene inhibitors (e.g., Montelukast (Singulair®))
 - Oral steroids (e.g., prednisone, solumedrol (Medrol Dosepak®))
 - Oral 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) Topical antibiotics (not FDA approved but many studies showing efficacy)
 - Pharmacy compounded sinus rinses (antibiotics, steroids, xylitol)
 - Biologics (e.g., Dupilumab (Dupixent®, FDA approved for sinusitis), Mepolizumab (Nucala®), Omalizumab (Xolair®))

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 weight limit/dimensions of MRI machine

SUMMARY OF EVIDENCE

ACR Appropriateness Criteria® Sinonasal Disease: 2021 Update ⁽¹⁾

Study Design: This document presents guidelines for initial imaging utilization in patients with sinonasal disease, including acute rhinosinusitis, chronic rhinosinusitis, and suspected invasive fungal sinusitis.

Target Population: Patients presenting with sinonasal disease.

Key Factors: The guidelines are evidence-based and reviewed annually by a multidisciplinary expert panel. CT and MRI are the primary imaging modalities recommended for evaluating sinonasal disease. The document provides specific recommendations for imaging procedures based on different clinical scenarios, such as acute uncomplicated rhinosinusitis, suspected orbital or intracranial complications, and suspected sinonasal mass.

Clinical Practice Guideline (Update): Adult Sinusitis ⁽³⁾

Study Design: This document is an update of a 2007 guideline from the American Academy of Otolaryngology—Head and Neck Surgery Foundation. It provides evidence-based recommendations for managing adult rhinosinusitis, including acute bacterial rhinosinusitis (ABRS) and chronic rhinosinusitis (CRS).

Target Population: Adults with a clinical diagnosis of uncomplicated rhinosinusitis.

Key Factors: The guideline includes evidence from 42 new systematic reviews and 70 randomized controlled trials. It emphasizes patient education, counseling, and the judicious use of systemic and topical therapy. The update introduces new recommendations for managing CRS, including the use of saline nasal irrigation and topical intranasal corticosteroids. It also highlights the importance of distinguishing between viral and bacterial rhinosinusitis to avoid unnecessary antibiotic use.

ACR Appropriateness Criteria® Head Trauma: 2021 Update ⁽¹¹⁾

Study Design: This document is an update of the ACR Appropriateness Criteria for head trauma, providing guidelines for the use of neuroimaging in the management of head and brain injury.

Target Population: Patients with head trauma, including children and young adults.

Key Factors: The guidelines cover the acute, subacute, and chronic phases of head trauma. CT is recommended as the first-line imaging modality for suspected intracranial injury, while MRI is useful for persistent neurologic deficits. The document includes recommendations for imaging based on the severity of head trauma (mild, moderate, severe) and specific clinical scenarios, such as suspected intracranial arterial or venous injury and cerebrospinal fluid leak.

ANALYSIS OF EVIDENCE

Analysis ^(1,3,11)

The evidence from these articles collectively supports the use of CT imaging as a crucial tool in diagnosing and managing various sinonasal conditions. CT imaging is particularly valuable for its detailed depiction of bony anatomy, which is essential for surgical planning and accurate diagnosis. While MRI is preferred for its superior soft tissue contrast, CT remains the gold standard for evaluating bony structures and detecting complications related to sinonasal diseases.

The articles also highlight the limitations of radiographic imaging, emphasizing that CT imaging is more appropriate for initial evaluation, especially in cases with suspected complications. However, the recommendations for CT imaging vary depending on the specific condition being addressed, such as acute rhinosinusitis, chronic rhinosinusitis, or suspected sinonasal mass.

In summary, CT imaging is a vital diagnostic tool for sinonasal diseases, with its use tailored to the specific clinical scenario. The shared and differing conclusions from these articles provide a comprehensive understanding of the role of CT imaging in managing sinonasal conditions.

Shared Conclusions:

- **Importance of CT Imaging:** All three articles emphasize the importance of CT imaging in diagnosing and managing sinonasal diseases. CT is highlighted for its detailed depiction of bony anatomy, which is essential for surgical planning and accurate demonstration of sinonasal disease, bony erosions, and anatomic variants.
- **CT vs. MRI:** CT is preferred for its ability to accurately demonstrate the presence of sinonasal disease and bony erosions, while MRI is noted for its superior soft tissue contrast, which is useful for identifying intracranial and intraorbital complications.
- **Radiographic Imaging:** Radiographic imaging is generally considered inappropriate for initial imaging of uncomplicated rhinosinusitis due to its low sensitivity and specificity compared to CT.

POLICY HISTORY

Date	Summary
<u>July 2025</u>	<ul style="list-style-type: none"> ● <u>Added a Summary of Evidence and Analysis of Evidence</u>
<u>June 2025</u>	<ul style="list-style-type: none"> ● <u>This guideline replaces Evolent Clinical Guideline 009 for Sinus Maxillofacial CT, Limited or Localized Follow Up Sinus CT</u> ● <u>Removed Limited or Localized Follow Up Sinus CT in the title and CPT code 76380 as it will be moved to a new guideline for Follow Up, Limited, or Localized CT</u> ● <u>Clarified indications for structural abnormalities, facial trauma,</u>

	<p><u>anosmia, nasal fracture, Granulomatosis polyangiitis (GPA), nasal polyposis, and CSF leak</u></p> <ul style="list-style-type: none"> ● <u>Added odontogenic infection, allergic rhinitis, epistaxis, immunodeficiency indications</u> ● <u>Updated language in the preoperative/postoperative section</u> ● <u>Segment added to combinations studies about if the required use of conscious sedation is needed the entire combination is indicated</u> ● <u>Applicable Line of Business adjusted – Medicare checked</u> ● <u>Updated and expanded references</u> ● <u>Updated background</u>
June 2024	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● Updated references ● Updated background ● Added: <ul style="list-style-type: none"> ○ Nasal polyps as an indication for chronic recurrent sinusitis ○ 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:

	<ul style="list-style-type: none"> ○ 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: <ul style="list-style-type: none"> ○ 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
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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.

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