Anthem

Clinical UM Guideline

Subject: Functional Endoscopic Sinus Surgery (FESS)
Guideline #: CG-SURG-24
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Description

This document addresses the use of functional endoscopic sinus surgery (FESS), an endoscopic surgical procedure used to treat various conditions of the nasal sinuses, including but not limited to chronic sinusitis.

Note: Please see the following documents for related information:

- CG-SURG-18 Septoplasty
- CG-SURG-73 Balloon Sinus Ostial Dilation
- SURG.00089 Self-Expanding Absorptive Sinus Ostial Dilation
- MED.00091 Rhinophototherapy
- SURG.00132 Drug-Eluting Devices for Maintaining Sinus Ostial Patency

Clinical Indications

Medically Necessary:

Functional endoscopic sinus surgery (FESS) is considered **medically necessary** when **any one** of the following circumstances is present:

A. Suspected tumor seen on imaging, physical examination, or endoscopy; **or**
B. Suppurative (pus forming) complications, including but are not limited to:
    1. Subperiosteal abscess; **or**
    2. Brain abscess; **or**
C. Chronic polyposis with symptoms unresponsive to medical therapy; **or**
D. Allergic fungal sinusitis; **or**
E. Mucocele causing chronic sinusitis; **or**
F. Recurrent sinusitis that triggers or aggravates pulmonary disease, such as asthma or cystic fibrosis; **or**
G. Uncomplicated sinusitis (for example, sinusitis confined to the paranasal sinuses without adjacent involvement of neurologic, soft tissue, or bony structures) **and all** (1, 2, and 3) of the following:
    1. Either of the following:
        a. Four or more documented episodes of acute rhinosinusitis (for example, less than 4 weeks duration) in one year; **or**
        b. Chronic sinusitis (for example, greater than 12 weeks duration) that interferes with lifestyle; **and**
    2. Maximal medical therapy has been attempted, as indicated by **all** of the following:
        a. Antibiotic therapy; **and**
        b. Trial of inhaled steroids; **and**
        c. Nasal lavage; **and**
        d. Allergy testing (if symptoms are consistent with allergic rhinitis and have not responded to appropriate environmental controls and pharmacotherapy [antihistamines, intranasal corticosteroids, leukotriene antagonists, etc.]); **and**
    3. Abnormal findings from diagnostic work-up, as indicated by **any one** of the following:
        a. CT findings suggestive of obstruction or infection for example, but not limited to, air fluid levels, air bubbles, significant mucosal thickening, pansinusitis, or diffuse opacification; **or**
        b. Nasal endoscopy findings suggestive of significant disease; **or**
        c. Physical exam findings suggestive of chronic/recurrent disease (for example, mucopurulence, erythema, edema, inflammation); **or**
H. Fungal mycetoma; **or**
I. Persistent sinus symptoms following any prior sinus surgery; **or**
J. Cerebrospinal fluid rhinorrhea; **or**
K. Encephalocele; **or**
L. Posterior epistaxis (relative indication); **or**
M. Persistent facial pain after other causes ruled out (relative indication); **or**
N. Cavernous sinus thrombosis caused by chronic sinusitis.

Nasal or sinus cavity debridement following FESS is considered **medically necessary** for any of the following circumstances:

A. Twice during the first 30 days postoperatively; **or**
B. Postoperative loss of vision or double vision; **or**
C. Evidence of cerebrospinal fluid leak such as rhinorrhea; **or**
D. When prompted by physical obstruction of the sinus opening related to:
    1. Nasal polyps unresponsive to oral or nasal steroids; **or**
    2. Documented presence of papilloma, carcinoma or other neoplasm; **or**
    3. Allergic fungal sinusitis.

Not Medically Necessary:

Functional endoscopic sinus surgery is considered **not medically necessary** when the criteria above are not met.

Nasal or sinus cavity debridement following FESS is considered **not medically necessary** when criteria above are not met, including additional post-surgical debridement beyond 30 days post-procedure.

Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When services may be Medically Necessary when criteria are met:

CPT

31253	Nasal/sinus endoscopy, surgical with ethmoidectomy; total (anterior and posterior), including frontal sinus exploration, with removal of tissue from frontal sinus, when performed
31254	Nasal/sinus endoscopy, surgical with ethmoidectomy; partial (anterior)
31255	Nasal/sinus endoscopy, surgical with ethmoidectomy; total (anterior and posterior)
31256	Nasal/sinus endoscopy, surgical, with maxillary antrostomy
31257	Nasal/sinus endoscopy, surgical with ethmoidectomy; total (anterior and posterior), including sphenoidotomy
31259	Nasal/sinus endoscopy, surgical with ethmoidectomy; total (anterior and posterior), including sphenoidotomy, with removal of tissue from the sphenoid sinus
31267	Nasal/sinus endoscopy, surgical, with maxillary antrostomy; with removal of tissue from maxillary sinus
31276	Nasal/sinus endoscopy, surgical, with frontal sinus exploration, including removal of tissue from frontal sinus, when performed
31287	Nasal/sinus endoscopy, surgical, with sphenoidotomy
31288	Nasal/sinus endoscopy, surgical, with sphenoidotomy; with removal of tissue from the sphenoid sinus
	For the following CPT code **when specified as post-operative debridement following sinus surgery**:
31237	Nasal/sinus endoscopy, surgical; with biopsy, polypectomy or debridement [*when specified as post-operative debridement following sinus surgery*]

HCPCS

S2342	Nasal endoscopy for post-operative debridement following functional endoscopic sinus surgery, nasal and/or sinus cavity(s), unilateral or bilateral

ICD-10 Procedure

095P4ZZ-095X4ZZ	Destruction of sinus, percutaneous endoscopic approach [accessory, maxillary, frontal ethmoid or sphenoid; includes codes 095P4ZZ, 095Q4ZZ, 095R4ZZ, 095S4ZZ, 095T4ZZ, 095U4ZZ, 095V4ZZ, 095W4ZZ, 095X4ZZ]
099P40Z-099X4ZZ	Drainage of sinus, percutaneous endoscopic approach [with or without device, accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 099P40Z, 099P4ZZ, 099Q40Z, 099Q4ZZ, 099R40Z, 099R4ZZ, 099S40Z, 099S4ZZ, 099T40Z, 099T4ZZ, 099U40Z, 099U4ZZ, 099V40Z, 099V4ZZ, 099W40Z, 099W4ZZ, 099X40Z, 099X4ZZ]
09BP4ZZ-09BX4ZZ	Excision of sinus, percutaneous endoscopic approach [accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 09BP4ZZ, 09BQ4ZZ, 09BR4ZZ, 09BS4ZZ, 09BT4ZZ, 09BU4ZZ, 09BV4ZZ, 09BW4ZZ, 09BX4ZZ]
09CP4ZZ-09CX4ZZ	Extirpation of matter from sinus, percutaneous endoscopic approach [accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 09CP4ZZ, 09CQ4ZZ, 09CR4ZZ, 09CS4ZZ, 09CT4ZZ, 09CU4ZZ, 09CV4ZZ, 09CW4ZZ, 09CX4ZZ]
09DP4ZZ-09DX4ZZ	Extraction of sinus, percutaneous endoscopic approach [accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 09DP4ZZ, 09DQ4ZZ, 09DR4ZZ, 09DS4ZZ, 09DT4ZZ, 09DU4ZZ, 09DV4ZZ, 09DW4ZZ, 09DX4ZZ]
09JY4ZZ	Inspection of sinus, percutaneous endoscopic approach
09NP4ZZ-09NX4ZZ	Release sinus, percutaneous endoscopic approach [accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 09NP4ZZ, 09NQ4ZZ, 09NR4ZZ, 09NS4ZZ, 09NT4ZZ, 09NU4ZZ, 09NV4ZZ, 09NW4ZZ, 09NX4ZZ]
09QP4ZZ-09QX4ZZ	Repair sinus, percutaneous endoscopic approach [accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 09QP4ZZ, 09QQ4ZZ, 09QR4ZZ, 09QS4ZZ, 09QT4ZZ, 09QU4ZZ, 09QV4ZZ, 09QW4ZZ, 09QX4ZZ]
09TP4ZZ-09TX4ZZ	Resection of sinus, percutaneous endoscopic approach [accessory, maxillary, frontal, ethmoid or sphenoid; includes codes 09TP4ZZ, 09TQ4ZZ, 09TR4ZZ, 09TS4ZZ, 09TT4ZZ, 09TU4ZZ, 09TV4ZZ, 09TW4ZZ, 09TX4ZZ]

ICD-10 Diagnosis

A42.0-A42.9	Actinomycosis
B47.0-B47.9	Mycetoma
C31.0-C31.9	Malignant neoplasm of accessory sinuses
D14.0	Benign neoplasm of nasal cavities, middle ear, and accessory sinuses
D38.5	Neoplasm of uncertain behavior of other respiratory organs (accessory sinuses)
D38.6	Neoplasm of uncertain behavior of respiratory organ, unspecified
G08	Intracranial and intraspinal phlebitis and thrombophlebitis
G96.01	Cranial cerebrospinal fluid leak, spontaneous
G96.08	Other cranial cerebrospinal fluid leak
J01.00-J01.91	Acute sinusitis
J32.0-J32.9	Chronic sinusitis
J33.0-J33.9	Nasal polyps
J34.1	Cyst and mucocele of nose and nasal sinus
J34.89	Other specified disorders of nose and nasal sinuses
Q01.0-Q01.9	Encephalocele
R04.0	Epistaxis

Z48.89	Encounter for other specified surgical aftercare

When services are Not Medically Necessary:
For the procedure and diagnosis codes listed above when criteria are not met or for all other diagnoses not listed.

Discussion/General Information

Functional Endoscopic Sinus Surgery (FESS)

FESS is the most commonly used surgical technique to treat medically unresponsive chronic sinusitis and other serious conditions of the nasal sinuses that result in impaired sinus drainage. FESS uses small fiber optic tools to access the nasal sinuses through the nares to remove diseased tissue and bone. This may result in opened sinus passageways, improved mucus drainage, and promotion of healthy tissue growth.

Prior to the creation and adoption of FESS, the standard treatment method involved the creation of a surgical opening in the upper jaw above the front teeth. The use of FESS allows for a much less invasive and traumatic procedure, shorter surgery and healing times, less postoperative discomfort, and fewer surgical complications. FESS has become a generally accepted alternative to open sinus surgery for indications requiring access to a nasal sinus. These include evaluation or treatment of tumors, polyps, chronic rhinosinusitis, cerebrospinal fluid rhinorrhea, encephalocele, posterior epistaxis, allergic fungal sinusitis, and persistent facial pain after other causes ruled out.

Despite having been widely adopted, only a few controlled trials evaluating the use of FESS for various conditions have been published in the medical literature. One randomized controlled trial (RCT) by Blomqvist (2001) compared medical treatment for nasal polyps with surgery followed by medical treatment in 32 subjects with a follow-up of 1 year. The authors reported that surgery reduced the polyp score and improved nasal obstruction symptoms, but did not help with hyposmia (reduced sense of smell). Another study by Penttila (1997) reported the results of a randomized study comparing FESS vs. the Caldwell-Luc (C-L) open procedure for the treatment of chronic maxillary sinusitis. Follow-up ranged from 5 to 9 years with 128 individuals responding. The authors report that the outcomes for the FESS group were approximately equivalent to that in the C-L group.

A prospective, RCT of medical vs. surgical treatment of polypoid and nonpolypoid chronic rhinosinusitis (CRS) is described by Ragab and colleagues (2004). In this study, 90 people with CRS were randomized to either medical or surgical therapy with FESS. The study found that both the medical and surgical treatments for CRS significantly improved almost all subjective and objective parameters of CRS. The study found no significant difference between the two groups. The authors conclude that CRS should initially be treated with maximal medical therapy (including antibiotics and topical steroids) with surgical treatment being reserved for cases refractory to medical therapy.

Bitner and colleagues (2021) performed a meta-analysis in which individuals were categorized as either having FESS or rhinoplasty alone or combined. Six of the studies reviewed provided information for further quantitative analysis and included 190 individuals who underwent FESS and rhinoplasty, 45 individuals who underwent FESS and 170 who underwent rhinoplasty. All participants were similar across all studies with mean age ranging from 24.5 and 40.6 years. The individuals that underwent combined surgery or FESS alone had a clinical diagnosis of CRS. Postoperative complications were observed in 23 of 190 (12.1%) combined cases, in 2 of 45 (4.4%) FESS cases and in 10 of 170 (5.9%) rhinoplasty cases. Major complications were defined as prolonging the hospital length of stay and/or required intervention. Major complications were observed in 11 (5.8%) combined cases, 0 (0%) FESS cases and 6 (3.5%) rhinoplasty cases. Major complications occurred in 5.8% of combined cases compared to 0% of FESS cases and 3.5% of rhinoplasty cases. The researcher's analysis indicated there was no associated increased risk in postoperative complications when combining surgeries compared to rhinoplasty. In addition, there were no major differences in reoccurrence of CRS symptoms, revision rate, or individual satisfaction.

Finally, a Cochrane review of FESS for the indication of chronic rhinosinusitis from July 2006 concluded:

> The evidence available does not demonstrate that FESS, as practiced in the included trials, is superior to medical treatment with or without sinus irrigation in patients with chronic rhinosinusitis. There were no major complications in any of the included trials and FESS appears to be a safe procedure. More randomised controlled trials comparing FESS with medical and other treatments, with long-term follow up, are required.

The American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) published a consensus statement regarding pediatric chronic rhinosinusitis in 2014 (Brietzke, 2014). The following statements were made in this document:

> 23. Endoscopic sinus surgery (ESS) is an effective procedure for treating pediatric chronic rhinosinusitis (PCRS) that is best performed after medical therapy, adenoidectomy, or both have failed.
> 25. Image-guided ESS is useful for revision ESS cases and/or for patients with extensive nasal polyposis that can distort anatomical landmarks.

Although published evidence addressing FESS is limited, clinical experience over the past decade has demonstrated the clinical benefit of this procedure compared to more invasive techniques.

The AAO-HNS (2015) and the American Academy of Allergy, Asthma, and Immunology practice parameter (AAAAI, 2014) recommend that medical therapy for chronic rhinosinusitis (with polyposis) be based on the individual's clinical presentation. General recommendations include systemic antibiotics for 5-10 days for exacerbations, topical antibiotics for 3-6 weeks, and a short course of oral steroids. They also recommended that individuals who do not have significant nasal blockage should be treated with intranasal corticosteroids and nasal saline irrigation.

The AAAAI practice parameter offers guidance for evaluation of allergic fungal rhinosinusitis (AFRS). This condition should be suspected when there is persistent nasal congestion with thick discharge, nasal polyps, or facial pain. Other findings may include type I hypersensitivity to fungi by skin test or serum specific IgE, characteristic sinus CT findings (high attenuation areas and possibly bony erosion) or MRI results (central low signal on T1- and T2-weighted images and high signal intensity in areas of inflammation). Final confirmation of diagnosis for allergic fungal rhinosinusitis may occur with intraoperative histological findings such as eosinophilic mucin and fungal elements on pathology.

Postoperative Debridement

There have been several studies addressing the use of nasal or sinus postoperative debridement after FESS surgery. Results have been mixed with regard to the benefit of this procedure. A small study found no significant benefit from debridement (Nilssen, 2002). Another study found only minor symptom improvement when debridement was performed during the first postoperative week (Kemppainen, 2008). Another study found that debridement significantly reduces crusting and postoperative adhesions as compared with saline irrigation, but was associated with significantly more postoperative pain (Bugten, 2006). The authors reported that, at 12

weeks after surgery, there were no significant differences between individuals receiving or not receiving debridement in terms of polyps, edema, crusting, and discharge. A very small, randomized trial suggested that 1-week intervals were optimal for performing debridement. (Lee, 2008). Fishman and colleagues conducted a prospective, randomized, controlled, single-blinded, within-subject trial involving 24 subjects who underwent FESS and were followed for 3 months postoperatively (2011). Each subject had frequent endoscopic cleaning on one side versus minimal intervention on the other in the early postoperative period. The authors reported that there was no overall statistically significant difference between the two groups (p=0.37). A post-hoc subgroup analysis revealed a significant effect of regular suction clearance on adhesions at 3 months (p=0.048). No significant difference was observed in the occurrence of edema, polyps, granulation, discharge or crusting. An RCT reported by Alsaffar (2013) involved 58 subjects randomized to receive either two postoperative debridements at 2 and 4 weeks (n=28) or no debridement (n=30). The authors reported that there was no difference between the groups at 4 weeks in regard to Lund-Kennedy Endoscopic Score (p=0.59) or sino-nasal outcome test (SNOT)-21 scores (p=0.47). Similar results were reported at 6 months for Lund-Kennedy Endoscopic Score (p=0.46) and SNOT-21 (p=0.71). Although both groups reported low overall levels of pain in the early postoperative time period based on visual analog scale measurements, the debridement group had significantly higher overall pain score vs. controls (p=0.019). Finally, the authors investigated the difference in inconvenience between the two groups using the Post Operative Inconvenience Scale (POIS). A significant difference between groups was reported, with the debridement group significantly more inconvenienced than the control group (p=0.002).

In 2016, Varsak and colleagues published the results of an RCT involving 62 subjects with CRS who underwent FESS. Subjects were assigned to undergo post-operative debridement once at post-op week 1 or at post-op weeks 1, 2 and 4. Assessments were taken with a visual analog scale for 9 main symptoms of discomfort within the first 4 weeks, with the Lund-Kennedy endoscopic score at weeks 4 and 24, and with the SNOT-20 at week 24. Visual analog scores in the single debridement group showed significantly less discomfort at post-op week 4 (p=0.004) and less negative effects on their work (p=0.013). No statistically significant differences were reported between the 2 groups in the week 4 and 24 Lund-Kennedy endoscopic score or in the week 24 SNOT-20 scores (p>0.05). The authors concluded that frequent debridement causes more discomfort, more facial pain, more negative effects on subjects' work, and that it was not superior to a single debridement on post-FESS day 7.

Shi (2015) described the results of an RCT involving 67 subjects with CRS randomized to receive either 3 post-op debridements at 1, 4, and 8 weeks (low frequency) or weekly debridements for 8 weeks post-op (high frequency). At 4 weeks, complaints of facial pain rated on a 10-point visual analog scale were significantly less severe in the low frequency group compared to the high frequency group (2.74 vs. 5.92, p<0.01). There were significantly fewer severe nasal blockages noted in the high frequency group (3.45 vs. 4.83, p<0.05). Based on endoscopic findings and Lund-Kennedy Endoscopic Score at 4 weeks, there were no significant between-group differences regarding the presence of polyps, edema or discharge. However, a significantly lower incidence of severe crusts was noted in the high frequency group (1.12 vs. 1.90, p=0.003), but less scarring in the low frequency group (1.11 vs. 0.83 ± 0.78, p<0.01). At 8 weeks, no significant differences were noted between groups on all domains of the visual analog scale and Lund-Kennedy Endoscopic Score, except less scarring in the high frequency group (0.47 vs. 0.67, p<0.01). They concluded that the benefit of frequent debridement during the early post-op period was not in positive correlation with subjects recovering from ESS and that excessive debridement may induce more surgical trauma and cause more facial pain to individuals.

As noted above, the AAO-HNS published a consensus statement regarding pediatric chronic rhinosinusitis (Brietzke, 2014). The following statement addressing debridement was made in this document:

> 27. Postoperative debridement after ESS for PCRS is not essential for treatment success.

Postoperative debridement may need to occur for longer periods in some individuals with conditions that may lead to the development of complications. Such individuals include those with severe resistant nasal polyposis, neoplasm, or allergic fungal sinusitis. However, even in these individuals, debridement should be prompted by symptoms which arise as a consequence of the more extensive surgery or underlying disease. There is no evidence that debridement in the absence of symptoms is associated with improved outcomes even when there are risk factors for complications after FESS.

In 2018 the Cochrane library released a review addressing debridement versus no debridement for the postoperative care of individuals undergoing endoscopic sinus surgery (Tzelnick, 2018). The conclusions of this report were:

> We are uncertain about the effects of postoperative sinonasal debridement due to high risk of bias in the included studies and the low quality of the evidence. Sinonasal debridement may make little or no difference to disease-specific health-related quality of life or disease severity. Low-quality evidence suggests that postoperative debridement is associated with a significantly lower risk of adhesions at three months follow-up. Whether this has any impact on longer-term outcomes is unknown.

References

Peer Reviewed Publications:

1. Alanin MC, Hopkins, C. Effect of functional endoscopic sinus surgery on outcomes in chronic rhinosinusitis. Curr Allergy Asthma Rep. 2020; 20(7):27.
2. Alsaffar H, Sowerby L, Rotenberg BW. Postoperative nasal debridement after endoscopic sinus surgery: a randomized controlled trial. Ann Otol Rhinol Laryngol. 2013; 122(10):642-647.
3. Benninger MS, Ferguson BJ, Hadley JA, et al. Adult chronic rhinosinusitis: definitions, diagnosis, epidemiology, and pathophysiology. Otolaryngol Head Neck Surg. 2003; 129(3 Suppl):S1-32.
4. Bitner BF, Prasad KR, Goshtasbi K, et al. Outcomes of concurrent functional endoscopic sinus surgery and rhinoplasty: a meta-analysis. AM J Rhinol Allergy. 2021; 35(5):587-595.
5. Blomqvist EH, Lundblad L, Anggard A, et al. A randomized controlled study evaluating medical treatment versus surgical treatment in addition to medical treatment of nasal polyposis. J Allergy Clin Immunol. 2001; 107(2):224-228.
6. Bugten V, Norgard S, Steinsvag S. The effects of debridement after endoscopic sinus surgery. Laryngoscope. 2006; 116(11):2037-2043.
7. Busaba NY, Kieff D. Endoscopic sinus surgery for inflammatory maxillary sinus disease. Laryngoscope. 2002; 112(8 Pt 1):1378-1383.
8. Ehnhage A, Olsson P, Kölbeck KG, et al. Functional endoscopic sinus surgery improved asthma symptoms as well as PEFR and olfaction in patients with nasal polyposis. Allergy. 2009; 64(5):762-769.
9. Fishman JM, Sood S, Chaudhari M, et al. Prospective, randomised controlled trial comparing intense endoscopic cleaning versus minimal intervention in the early post-operative period following functional endoscopic sinus surgery. J Laryngol Otol. 2011; 125(6):585-589.
10. Hamilos DL. Chronic sinusitis. J Allergy Clin Immunol. 2000; 106(2):213-227.
11. Kemppainen T, Seppä J, Tuomilehto H, et al. Repeated early debridement does not provide significant symptomatic benefit after ESS. Rhinology. 2008; 46(3):238-242.

12. Kuhn FA, Javer AR. Allergic fungal rhinosinusitis: perioperative management, prevention of recurrence, and role of steroids and antifungal agents. Otolaryngol Clin North Am. 2000; 33(2):419-433.
13. Lee JY, Byun JY. Relationship between the frequency of postoperative debridement and patient discomfort, healing period, surgical outcomes, and compliance after endoscopic sinus surgery. Laryngoscope. 2008; 118(10):1868-1872.
14. Lieser JD, Derkay CS. Pediatric sinusitis: when do we operate? Curr Opin Otolaryngol Head Neck Surg. 2005. 13(1):60-66.
15. Luong A, Marple BF. Sinus surgery: indications and techniques. Clin Rev Allergy Immunol. 2006; 30(3):217-222.
16. Manning S. Surgical intervention for sinusitis in children. Curr Allergy Asthma Rep. 2001; 1(3):289-296.
17. Nilssen E, Wardrop P, El-Hakim H, et al. A randomized control trial of post-operative care following endoscopic sinus surgery: debridement versus no debridement. J Laryngol Otol. 2002; 116(2):108-111.
18. Orlandi RR, Kennedy DW. Surgical management of rhinosinusitis. Am J Med Sci. 1998; 316(1):29-38.
19. Penttila MA, Rautiainen ME, Pukander JS, Karma PH. Endoscopic versus Caldwell-Luc approach in chronic maxillary sinusitis: comparison of symptoms at one-year follow-up. Rhinology. 1994; 32(4):161-165.
20. Penttila MA, Rautiainen ME, Pukander JS, Kataja M. Functional vs. radical maxillary surgery. Failures after functional endoscopic sinus surgery. Acta Otolaryngol Suppl. 1997; 529:173-176.
21. Ragab SM, Lund VJ, Scadding G. Evaluation of the medical and surgical treatment of chronic rhinosinusitis: a prospective, randomised, controlled trial. Laryngoscope. 2004; 114(5):923-930.
22. Rahman T, Alam MM, Ahmed S, et al. Outcome of endoscopic sinus surgery in the treatment of chronic rhinosinusitis. Mymensingh Med J. 2016; 25(2):261-270.
23. Seiden AM, Stankiewicz JA. Frontal sinus surgery: the state of the art. Am J Otolaryngol. 1998; 19(3):183-193.
24. Shi L, Feng Y, Cui W, et al. Effect evaluation of repeated debridement after endoscopic sinus surgery. Int J Clin Exp Med. 2015; 8(1):928-933.
25. Smith TL, Kern R, Palmer JN, et al. Medical therapy vs surgery for chronic rhinosinusitis: a prospective, multi-institutional study with 1-year follow-up. Int Forum Allergy Rhinol, 2013; 3(1):4-9.
26. Varsak YK, Yuca K, Eryilmaz MA, Arbag H. Single seventh day debridement compared to frequent debridement after endoscopic sinus surgery: a randomized controlled trial. Eur Arch Otorhinolaryngol. 2016; 273(3):689-695.

Government Agency, Medical Society, and Other Authoritative Publications:

1. American Academy of Otolaryngology-Head and Neck Surgery. Clinical Indicators: Endoscopic Sinus Surgery, Adult. April 23, 2021. Available at: https://www.entnet.org/resource/clinical-indicators-endoscopic-sinus-surgery-adult/. Accessed on April 27, 2023.
2. American Academy of Otolaryngology-Head and Neck Surgery. Clinical Indicators: Endoscopic Sinus Surgery, Pediatrics. April 23, 2021. Available at: https://www.entnet.org/resource/clinical-indicators-endoscopic-sinus-surgery-pediatric/. Accessed on April 27, 2023.
3. Brietzke SE, Shin JJ, Choi S, et al. Clinical consensus statement: pediatric chronic rhinosinusitis. Otolaryngol Head Neck Surg. 2014; 151(4):542-553.
4. Khalil HS, Nunez DA. Functional endoscopic sinus surgery for chronic rhinosinusitis. Cochrane Database Syst Rev. 2006; (3):CD004458.
5. Peters AT, Spector S, Hsu J, et al.; Joint Task Force on Practice Parameters, representing the American Academy of Allergy, Asthma and Immunology, the American College of Allergy, Asthma and Immunology, and the Joint Council of Allergy, Asthma and Immunology. Diagnosis and management of rhinosinusitis: a practice parameter update. Ann Allergy Asthma Immunol. 2014; 113(4):347-85.
6. Rosenfeld RM, Piccirillo JF, Chandrasekhar SS, et al. Clinical practice guideline (update): adult sinusitis. Otolaryngol Head Neck Surg. 2015; 152(2 Suppl):S1-S39.
7. Tzelnick S, Alkan U, Leshno M, et al. Sinonasal debridement versus no debridement for the postoperative care of patients undergoing endoscopic sinus surgery. Cochrane Database Syst Rev. 2018;(11):CD011988.

Websites for Additional Information

1. National Library of Medicine. Medical Encyclopedia. Sinusitis. Avalable at: http://www.nlm.nih.gov/medlineplus/ency/article/000647.htm. Accessed on April 27, 2023.

Index

History

Status	Date	Action
Reviewed	05/11/2023	Medical Policy & Technology Assessment Committee (MPTAC) review. Updated References and Websites for Additional Information sections.
Reviewed	05/12/2022	MPTAC review. Updated Discussion/General Information and Websites for Additional Information sections.
Reviewed	05/13/2021	MPTAC review. Updated Discussion/General Information and Websites for Additional Information sections. Reformatted Coding section and updated with additional diagnosis codes.
Reviewed	05/14/2020	MPTAC review. Updated Description, Discussion/General Information and References sections.
Reviewed	06/06/2019	MPTAC review. Updated Discussion/General Information and References sections.
Revised	07/26/2018	MPTAC review. Removed MN criteria text related to time limit for antibiotic therapy for uncomplicated sinusitis. Added Websites section. Updated Discussion/General Information and References sections.
	12/27/2017	The document header wording updated from “Current Effective Date” to “Publish Date.” Updated Coding section with 01/01/2018 CPT changes; added 31253, 31257, 31259 and descriptor changes for 31254, 31255, 31276.

Reviewed	08/03/2017	MPTAC review. Clarified MN statement criteria regarding medical therapy for polyposis and prior sinus surgery. Clarified NMN statement and post-surgical debridement. Updated Discussion/General Information and References sections.
Reviewed	02/02/2017	MPTAC review. Updated Discussion/General Information and References sections.
Reviewed	08/04/2016	MPTAC review. Updated formatting in clinical indications section. Updated References section. Removed ICD-9 codes from Coding section.
Revised	08/06/2015	MPTAC review. Added “consecutive” to the medically necessary criteria addressing antibiotic therapy. Updated References section.
Reviewed	08/14/2014	MPTAC review. Updated Discussion/General Information and References sections.
Revised	08/08/2013	MPTAC review. Clarified medically necessary criteria regarding CT findings for uncomplicated sinusitis and allergy assessment. Updated Coding and References sections.
	07/01/2013	Updated Coding section to remove CPT 31240 (not applicable).
Revised	08/09/2012	MPTAC review. Revised mucocele indication in MN statement to add “causing chronic sinusitis”. Added “Cavernous sinus thrombosis caused by chronic sinusitis” to MN statement. Updated Coding and References sections.
Revised	05/10/2012	MPTAC review. Revised statement regarding uncomplicated sinusitis. Revision of debridement statement regarding symptoms of nasal obstruction.
Revised	08/18/2011	MPTAC review. Added language to not medically necessary section regarding the use of FESS for all other indications.
Revised	11/18/2010	MPTAC review. Added medically necessary and not medically necessary statements regarding postoperative debridement following FESS. Updated Discussion/General Information and References.
Reviewed	08/19/2010	MPTAC review. Updated References section.
Reviewed	08/27/2009	MPTAC review. Updated References section.
Reviewed	08/28/2008	MPTAC review.
Reviewed	08/23/2007	MPTAC review.
New	09/14/2006	MPTAC initial guideline development.
