Functional Endoscopic Sinus Surgery (FESS) (for North Carolina Only)

Policy Number: CSNCT0578.07
Effective Date: November 1, 2023

Instructions for Use

Table of Contents **Page**

Related Policies

- Balloon Sinus Ostial Dilation (for North Carolina Only)
- Rhinoplasty and Other Nasal Procedures (for North Carolina Only)

Application

This Medical Policy only applies to the state of North Carolina.

Coverage Rationale

Functional Endoscopic Sinus Surgery (FESS) is proven and medically necessary when one or more of the following conditions are present:

- Chronic Rhinosinusitis (CRS); for clinical coverage criteria, refer to the North Carolina Medicaid (Division of Health Benefits) Physician Clinical Coverage Policy 1A-42, Balloon Ostial Dilation
- Recurrent Acute Rhinosinusitis (RARS) with **all** of the following:
  - Four or more episodes per year with distinct symptom free intervals between episodes; and
  - Sinonasal symptoms such as pain, pressure, or drainage are present on the same side as CT scan findings of rhinosinusitis; and
  - Recent Computed Tomography (CT) scan evidence of one of the following:
    - For the maxillary, frontal, or sphenoid sinuses, both of the following are present:
      - Ostial obstruction (outflow tract obstruction) in the sinus to be treated
      - Mucosal thickening in the sinus to be treated
    - For the ethmoid sinus, mucosal thickening is present
- Any of the following conditions confirmed on CT:
  - Complications of sinusitis such as abscess
  - Symptomatic concha bullosa
  - Symptomatic mucocele
  - Polyposis with obstructive symptoms
  - Sinonasal tumor

Functional Endoscopic Sinus Surgery (FESS) is unproven and not medically necessary for cases of CRS or RARS that do not meet the criteria above due to insufficient evidence of efficacy.

Definitions

Acute Rhinosinusitis (ARS): ARS is a clinical condition characterized by inflammation of the mucosa of the nose and paranasal sinuses with associated sudden onset of symptoms of purulent nasal drainage accompanied by nasal obstruction, facial pain/pressure/fullness, or both of up to four weeks duration (American Academy of Otolaryngology-Head and Neck Surgery [AAO-HNS] Clinical indicators for endoscopic sinus surgery for adults. 2012, Updated 2015).

Draf Classification System for Endoscopic Frontal Sinus Drainage: A classification system to describe degrees of endoscopic surgical interventions used in the management of frontal sinus disorders based on the sinuses accessed (Al Komser et al., 2013).

Type	Description
Draf I	A simple drainage of the cells of the frontal recess without altering the frontal sinus ostium; also known as an anterior ethmoidectomy
Draf IIa	Extended drainage with resection of the sinus floor from the lamina papyracea to the middle turbinate for the removal of agger nasi and frontal recess cells; also known as a frontal sinusotomy
Draf IIb	Extended drainage with more extensive resection of the frontal sinus floor from the lamina papyracea to the nasal septum; also known as drilling of the frontal sinus or unilateral frontal sinus drillout
Draf III	Removal of all of the frontal sinus floor, intersinus septum, the frontal beak and the superior septum; also known as an endoscopic modified Lothrop procedure or a bilateral frontal sinus drillout

Functional Endoscopic Sinus Surgery (FESS): FESS is a minimally invasive, mucosal-sparing surgical technique utilized to treat medically refractory CRS with or without polyps or recurrent acute rhinosinusitis Homsi and Gaffey, 2022).

Recurrent Acute Rhinosinusitis (RARS): RARS has been defined as four episodes per year of acute rhinosinusitis with distinct symptom free intervals between episodes (Rosenfeld et al., 2015).

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Coverage Determination Guidelines may apply.

CPT Code	Description
31240	Nasal/sinus endoscopy, surgical; with concha bullosa resection
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

CPT Code	Description
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

Description of Services

Functional Endoscopic Sinus Surgery (FESS) is a set of minimally invasive surgical techniques which allow direct visual examination and opening of the sinuses sometimes used for the treatment of Chronic Rhinosinusitis CRS or Recurrent Acute Rhinosinusitis (RARS) which have not responded to medical treatment. FESS has also been used to treat other conditions such as complications of sinusitis abscess, concha bullosa, mucocele, polyposis with obstructive symptoms or sinonasal tumor. Compared to other surgeries, the use of FESS allows for a much less invasive and traumatic procedure, resulting in shorter surgery and healing times, less postoperative discomfort, and fewer surgical complications.

Clinical Evidence

Lourijsen et al. (2022) conducted an open-label, multi-center randomized controlled trial (RCT) to assess the efficacy of endoscopic sinus surgery (ESS) plus medical therapy versus medical therapy alone in patients with chronic rhinosinusitis with nasal polyps (CRSwNP). Their study included 238 participants with 142 men (61%) with a mean age of 50.4 years who were randomly assigned to either an ESS plus medical therapy group (n = 121) or to a medical therapy only group (n = 117). Adults with CRSwNP and an indication for ESS (failure of appropriate medical treatment) were randomly assigned to receive either the ESS plus medical therapy group or to the medical therapy only group. ESS was performed according to local practice with anterior ethmoidectomy mandatory. Computed tomography (CT) sinus Lund-Mackay score was collected at baseline and follow-up. Concurrent medical therapy was prescribed at the patient's otorhinolaryngologist's discretion and consisted of, but was not limited to, nasal corticosteroids, nasal lavage, systemic corticosteroids, or systemic antibiotics. The primary outcome was disease-specific health-related quality of life (HRQoL) at 12 months of follow up, measured with the Sinonasal Outcome Test 22 (SNOT-22). The study showed that the mean SNOT-22 score in the ESS plus medical therapy group was 27.9 at 12 months and was 31.1 in the medical therapy group; adjusted mean difference of −4·9 (95% CI −9·4 to −0·4). The authors concluded that ESS plus medical therapy is more efficacious than medical therapy alone in patients with CRSwNP even though the minimal clinically important difference was not met in their study. They recommended additional studies with longer-term follow-up to determine whether the effect persists over time.

Saltagi et al. (2021) performed a systematic review of the literature on the management of recurrent acute rhinosinusitis (RARS). A total of 1022 titles/abstracts possibly related to RARS were identified. Of these, 10 publications met inclusion criteria (five with level 4 evidence four with level 3 evidence, one with level 2 evidence). The studies included a total of 890 participants (age range 5.8 to 53.5 years), with follow up ranging from one to 19 months. The outcomes were primarily based on symptomatic improvement, although some articles also reported post-treatment endoscopic and radiographic findings. Management options included medical therapy (intranasal steroids, antibiotics, nasal saline irrigations, N-acetylcysteine, allergy treatment, and decongestants), balloon sinus dilation (BSD), and ESS. ESS was assessed in six publications, all with evidence level 3 or 4. Surgical patients (BSD and ESS) had a trend towards greater symptom control than medically treated patients, but meta-analysis was not possible. Although there are study limitations, the author’s note that until better evidence can be obtained, current recommendations are based on expert opinion. Recommendations include considering surgery when patients experience four annual episodes (with at least one episode confirmed via computed tomography or nasal endoscopy) and the patient has either failed a trial of topical nasal steroids or experienced RARS-related productivity loss. These findings are limited by the lack of studies with direct comparisons between treatment options, lack of randomization, and open-label design.

Smith et al. (2019) conducted an observational case series of 59 adult patients with chronic rhinosinusitis (CRS) electing ESS. Long-term, disease-specific quality-of-life (QOL) outcomes, health utility values (HUV), revision surgery rate, development of asthma, and patient expectations/satisfaction with outcomes of ESS were examined using descriptive statistics and simple fixed-effects linear modeling. Fifty-nine adult patients were followed for 10.9 years, on average. Mean QOL significantly

improved between baseline and six months and remained durable to 10 years. HUV improved to normal. A 17% revision surgery rate within the 10-year follow-up period was observed with a 25% revision rate in CRS with polyposis. New-onset asthma after ESS occurred at a rate of 0.8%/year. Patient satisfaction with ESS outcomes was generally high. The authors concluded that the ten-year prospective outcomes of ESS for CRS demonstrate that the initial clinically significant improvements in QOL seen six months postoperatively are durable over the long term.

Ni et al. (2018) conducted a systematic review and meta-analysis on studies using the Sinus and Nasal Quality of Life Survey (SN-5) which is a validated symptom questionnaire in pediatric chronic rhinosinusitis (CRS). A total of 10 studies, consisting of 13 separate treatment arms of either medical therapy, adenoidectomy, balloon catheter sinuplasty (BCS), or FESS were included in the review. The investigators limited inclusion of studies to pre/post studies that reported changes in SN-5 scores. Despite the multiple interventions under consideration in this meta-analysis, no treatment comparisons were conducted. Two of the 10 studies that met inclusion criteria for the meta-analysis reported SN-5 improvement following treatment with FESS. In the FEES-stratified meta-analysis of these two studies that included 22 total patients, the mean SN-5 score decreased by 1.83 points ((95% CI, 1.47 to 2.19), which the authors report as a statistically significant improvement ($p < 0.00001$).

The National Cancer Database was queried for cases of sinonasal squamous cell carcinoma (SNSCC) without cervical or distant metastases that were treated surgically between 2010 and 2014. They were divided into two groups based on surgical approach: open or endoscopic. Cox proportional hazard analysis was performed. Propensity score matching (PSM) was used to mimic a randomized, controlled trial. A total of 1,483 patients were identified: 353 (23.8%) received endoscopic and 1130 (76.2%) received open surgery. Age, gender, race, geographic region, tumor size, surgical margins, postoperative chemoradiation, and 30-day readmissions did not vary significantly between the two groups. Open surgery was more common in academic centers (62.8% vs 54.2%; $p = 0.004$), less common for tumors of the ethmoid and sphenoid sinus ($p < 0.0001$), less common for stage IVB tumors, and associated with longer hospital stay. Five-year overall survival (OS) (5Y-OS) was not significantly different between the two approaches ($p = 0.953$; open: 5Y-OS, 56.5%; 95% confidence interval, 51.3% to 61.6% endoscopic: 5Y-OS, 46.0%; 95% confidence interval, 33.2% to 58.8%). In the PSM cohort of 652 patients, there was also no significant difference in OS ($p = 0.850$). The investigators concluded that endoscopic surgery is an effective alternative to open surgery, even after accounting for confounding factors that may favor its use over the open approach (Kılıç et al., 2018).

Kim and Kwon (2017) conducted a meta-analysis to evaluate recurrence of sinonasal inverted papilloma (IP) based on the type of surgical approach. Fourteen retrospective cohort studies involving a total of 696 endoscopic approaches and 444 non-endoscopic approaches were included in the review. The pooled risk ratio (RR) for IP recurrence (endoscopic vs. external approach) was 0.56 [95% CI: 0.36-0.85, I2 = 48.3%]. The investigators concluded that surgical management of IP via an endoscopic approach reduces the risk of recurrence compared to an external approach. Although further data are needed, early- stage IP requires endoscopic or endoscopic-assisted surgery to reduce the risk of tumor recurrence.

In a systematic review and meta-analysis, Patel et al. (2017) examined the literature regarding management of CRS patient's refractory to appropriate medical therapy (AMT). Adult patients with CRS who received AMT and then underwent either medical or surgical therapy in moderate to high level prospective studies were included. Six observational or before/after studies were included in the systematic review with five included in the meta-analysis. On meta-analysis, for patients with CRS refractory to AMT, ESS significantly improves objective endoscopic scoring outcomes vs continued medical therapy alone. In patients with refractory CRS who had significant reductions in baseline quality of life (QOL), ESS results in significant improvements. Continued medical therapy appears to maintain outcomes in patients with less severe baseline QOL. Unpooled analysis demonstrated improvement in health utility and olfaction following ESS compared to continued medical therapy alone, in medically refractory CRS.

Wood et al. (2017) conducted a prospective case series to assess treatment outcomes of CRS patient's undergoing FESS and post-operative medical treatment over a prolonged follow-up period. The study included 200 non-consecutive patients in the tertiary referral practice of a single surgeon. Symptoms were scored by patients pre-operatively and over a minimum follow-up period of 12 months. The median pre-operative symptom score was 16 (out of a maximum of 25). Symptom scores reduced to a median of seven after 12 months of follow up. The median symptom score improved for all symptoms and across all patient subgroups. The authors concluded that extensive FESS offers significant and durable symptom improvement in patients with CRS refractory to medical treatment and that prolonged medical therapy is recommended after FESS. The findings are however limited by lack of comparison group undergoing a different treatment approach.

Djukic et al. (2015) evaluated the clinical outcomes and quality of life (QoL) in patients with nasal polyposis (NP) after FESS. The prospective study included 85 consecutive adult patients (≥ 18 years) with NP who were operated on using FESS after failure of the medical treatment and in certain cases of surgical treatment. The objective finding was presented as endoscopic and CT score. The intensity of each symptom, the values of symptom scores (major, minor, and total), the values of dimension scales and summary scales of the QoL, as well as the values of endoscopic score through three periods of time (pre-surgery, six and 12 months after the surgery) were analyzed. Following FESS, mean intensity values of all individual symptoms and symptom scores were significantly lower and the values of all dimension scales and summary scales of QoL were significantly higher ($p < 0.05$). There was no statistically significant difference in symptom intensity and QoL after six and 12 months of surgical treatment ($p > 0.05$). Endoscopic score was on average significantly lower after six and 12 months of FESS ($p < 0.05$), but the mean score value after 12 months of operation was significantly higher in relation to that after six months of surgery ($p < 0.05$). Nevertheless, the recurrence of NP was observed in 28 patients (32.9 %) in the follow-up period. In conclusion, FESS in patients with NP results in significant improvement of symptom intensity, QoL and endoscopic score. While the intensity of symptoms and QoL showed a tendency to maintain between six and 12 months after surgery, endoscopic score showed a tendency of exacerbation in the same period. The findings are limited by lack of comparison group.

In a systematic review, Vlastarakos et al. (2013) evaluated the quality of evidence in the use of FESS for the treatment of CRS in children, regarding the respective changes in their QOL and the outcome that follows the operation. Fifteen studies were systematically analyzed. Four represented Level II, 5 Level III, and 6 Level IV evidence. The total number of treated patients was 1301. Thirteen research groups reported that pediatric FESS is an effective treatment for CRS; the respective positive outcome ranged between 71 and 100% of operated children. Five studies concluded that this treatment modality is associated with significant improvement in the children's postoperative QOL. Systemic diseases and environmental factors may have unfavorable prognostic effects; cystic fibrosis is associated with at least 50% recurrence rate. The rate of major complications following pediatric FESS is 0.6%, and the respective rate of minor complications is 2%. The authors concluded that surgical management with FESS in children with CRS is effective when optimal medical treatment proves unsuccessful (grade B strength of recommendation) and is associated with improvement in the children's QOL (grade B strength of recommendation). FESS also improves the sinusitis-associated symptoms and QOL in children with cystic fibrosis (grade C strength of recommendation). According to the authors, most complications of pediatric FESS reported in the literature are minor and associated with difficulties in the postoperative assessment and care of pediatric patients.

Scangas et al. (2013) conducted a retrospective case series at a university tertiary referral center to characterize the natural history, clinical characteristics, management principles, and outcomes of paranasal sinus mucoceles. A chart review was performed on 102 patients with a total of 133 paranasal sinus mucoceles. Patients were diagnosed with a mucocele on average 5.3 years following prior FESS, 17.7 years following prior paranasal sinus trauma, and 18.1 years following prior open sinus surgery. The most common presenting symptoms were headache (42.1%) and maxillofacial pressure (28.6%). The most common sites were the frontal, frontoethmoidal, and ethmoid sinuses. Fifty-seven mucoceles (44.9%) had intraorbital extension, intracranial extension, or both. Out of 133 mucoceles, 114 underwent ESS without complication. The authors concluded that the endoscopic approach can be safely used for the management of mucoceles.

Higgins et al. (2011) conducted a systematic review with a pooled-data analysis to compare outcomes of endoscopic versus craniofacial resection of sinonasal malignancies. The review included 15 case series with individual data on 226 patients. The overall five-year survival rate for the sample was 56.5%. Because of the paucity of data with endoscopic resection of high-stage malignancies, the outcome results were highly variable, and no useful comparison could be made. Among low-stage malignancies (T1-2 or Kadish A-B), the endoscopic and open approaches demonstrated no statistically significant difference in outcome results. The 5-year overall survival was 87.4% in the endoscopic group versus 76.8% for open approaches; disease-specific survival was 94.7% versus 87.7%; and locoregional control rate was 89.5% versus 77.2%. The authors concluded that transnasal endoscopic resection appears to be a reasonable alternative to craniofacial resection in the management of low stage sinonasal malignancies.

Maru and Gupta (1999) conducted a study of 150 patients with chronic sinusitis, who underwent CT scan of the paranasal sinuses prior to FESS. The CT scans were evaluated to detect the incidence of concha bullosa and its types, the significance of concha bullosa in the formation of ostiomeatal complex disease and the relation between type of concha bullosa and ostiomeatal complex disease. All patients underwent FESS. According to the investigators, functional endoscopic sinus surgery is the technique of choice for management of inflammatory disease of middle meatus and concha bullosa so as to restore the normal function of the middle turbinate.

Clinical Practice Guidelines

American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS)

The AAO-HNS developed an expert consensus statement on the use of sinus ostial dilation (SOD) of the paranasal sinuses (AAO-HNS, 2018). An expert panel of otolaryngologists was assembled to represent general otolaryngology and relevant subspecialty societies. A modified Delphi method was used to distill expert opinion into clinical statements that met a standardized definition of consensus. Consensus was reached that there is a role for treating patients with recurrent acute sinusitis as defined in the AAO-HNSF guideline based on symptoms and the CT evidence of ostial occlusion and mucosal thickening.

In a 2015 Clinical Practice Guideline (update) for Adult Sinusitis, the AAO-HNS indicates that clinicians should recommend saline nasal irrigation, topical intranasal corticosteroids, or both for symptom relief of chronic rhinosinusitis (CRS). Computed tomography (CT) of the paranasal sinuses should be obtained when endoscopic sinus surgery is considered or planned in patients with CRS or recurrent acute rhinosinusitis (ARS). In addition to demonstrating abnormal mucosa and opacified sinuses, CT will provide the anatomic detail necessary to guide the surgery. Surgical management of CRS is not discussed "because of insufficient evidence (e.g., RCTs) for evidence-based recommendations" (Rosenfeld et al. 2015).

The AAO-HNS clinical indicators for endoscopic sinus surgery for adults state that the indications for endoscopic sinus surgery include a history of one of more of the following:

- CRS with or without nasal polyps with persistent symptoms and objective evidence of disease by endoscopic and/or CT imaging that is refractory to medical treatment
- Allergic fungal rhinosinusitis
- Unilateral paranasal sinus opacification, symptomatic or asymptomatic, consistent with CRS with or without nasal polyps, fungus ball, or benign neoplasm (i.e., inverted papilloma)
- Complications of sinusitis, including extension to adjacent structures such as orbit or skull base
- Sinonasal polyposis with nasal airway obstruction or suboptimal asthma control
- Mucocele
- Recurrent acute rhinosinusitis

The AAO-HNS clinical indicators for endoscopic sinus surgery also indicate that imaging studies should generally be obtained after optimal medical therapy (American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS). Clinical indicators: Endoscopic sinus surgery, adult 2012, Updated 2021).

The AAO-HNS clinical pediatric chronic rhinosinusitis expert consensus statement concluded that the effectiveness of balloon sinuplasty compared to traditional endoscopic sinus surgery for pediatric CRS cannot be determined based on current evidence. It also states that adenoidectomy is an effective first-line surgical procedure for children aged 13 years and older with CRS (AAO-HNS, 2014).

In the 2021 clinical indicators for pediatric endoscopic sinus surgery, the AAO-HNS states that adenoidectomy should be strongly considered a minimum of three months prior to performing pediatric sinus surgery when there is failure of medical management for CRS or recurrent ARS.

American Academy of Allergy Asthma and Immunology (AAAA), the American College of Allergy Asthma and Immunology (ACAAI), and the Joint Council of Allergy Asthma and Immunology (JCAAI)

In a 2014 practice parameter for the diagnosis and management of rhinosinusitis, the AAAA, ACAAI, and JCAAI recommends that although medical therapy is the mainstay of disease management, FESS should be considered when medical therapy fails. According to the AAAA, ACAAI, and JCAAI, indications for surgical intervention include the following:

- When nasal polyps obstruct sinus drainage and persist despite appropriate medical treatment
- When there is recurrent or persistent infectious rhinosinusitis despite adequate trials of medical management that at least includes topical nasal steroids and nasal irrigations
- For biopsy of sinonasal tissue to rule out granulomatous disease, neoplasm, ciliary dyskinesia, or fungal infections
- When maxillary antral puncture is required (as for culture-directed therapy)
- When anatomic defects obstruct the sinus outflow tract, particularly the ostiomeatal complex (and adenoidal tissues in children)

- For rhinosinusitis with threatened complications (such as threat of brain abscess, meningitis, cavernous sinus thrombosis, or frontal bone osteomyelitis)

Regarding medical management for CRS, the AAAA, ACAAI, and JCAAI indicate that the role of antibiotics in CRS is controversial. For CRS associated with suspected bacterial infection, a longer duration of therapy beyond the usual 10 to 14 days is suggested; the choice of appropriate antibiotic therapy may need to consider the possible presence of anaerobic pathogens. Because CRS is an inflammatory disease, intranasal corticosteroids (INSs) are indicated for treatment. Other adjunctive therapy, such as intranasal antihistamines, decongestants, saline irrigation, mucolytics, and expectorants, might provide symptomatic benefit in select cases.

American College of Radiology (ACR)

The ACR Appropriateness Criteria for Sinonasal Disease (ACR 2017, revised 2021) indicates the following:

- Most cases of uncomplicated acute and subacute rhinosinusitis are diagnosed clinically and should not require any imaging procedure
- CT of the sinuses without contrast is the imaging method of choice in patients with recurrent acute sinusitis or chronic sinusitis, or to define sinus anatomy prior to surgery
- Immunocompromised patients are at high risk for invasive fungal sinusitis
- In patients with suspected sinonasal mass or suspected orbital and/or intracranial complication of sinusitis, MRI and CT are complementary studies

The International Consensus Statement on Allergy and Rhinology: Rhinosinusitis 2021 (ICAR-RS)

The 2021 ICAR-RS executive summary provides a compilation of evidenced-based recommendations for medical and surgical treatments for chronic rhinosinusitis (CRS), chronic rhinosinusitis with nasal polyps (CRSwNP), acute rhinosinusitis (ARS), and recurrent acute rhinosinusitis (RARS) (Orlandi et al. 2021). The summary states that ESS is recommended for rhinonologic diseases that demonstrate a “failure of maximal medical therapy” (MMT). Criteria used to confirm MMT and eligibility for ESS, but not limited to:

- Presence of two specific cardinal symptoms for ≥ 12 weeks which may vary for the following conditions CRS, CRSwNP, ARS or RARS
- Sino-Nasal Outcome Test 22 (SNOT-22) preoperative score ≥ 20
- Sinus inflammation and/or purulence on nasal endoscopy
- Sinus inflammation on Computed Tomography (CT)

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

FESS is a procedure and, therefore, not subject to FDA regulation; however, any medical devices, drugs, biologics, or tests used as a part of this procedure may be subject to FDA regulation.

References

American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) Clinical indicators: Endoscopic sinus surgery, adult. 2012, Updated April 23, 2021.

American Academy of Allergy Asthma and Immunology (AAAAI)/ American College of Allergy Asthma and Immunology (ACAAI). Joint Task Force Practice Parameter. Diagnosis and management of rhinosinusitis. 2014.

American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) Clinical indicators: Endoscopic sinus surgery, pediatric. April 23, 2021. Available at: https://www.entnet.org/resource/clinical-indicators-endoscopic-sinus-surgery-pediatric/. Accessed April 18, 2023.

American Academy of Otolaryngology Head and Neck Surgery (AAO-HNS). Expert consensus statement. Balloon Dilation of the Sinuses. 2018.

American College of Radiology (ACR). [Website] ACR Appropriateness Criteria. Sinonasal Disease. 2012, Revised 2021.

Djukic V, Dudvarski Z, Arsovic N, et al. Clinical outcomes and quality of life in patients with nasal polyposis after functional endoscopic sinus surgery. Eur Arch Otorhinolaryngol. 2015 Jan;272(1):83-9.

European Forum for Research and Education in Allergy and Airway Diseases (EUFOREA). European Position Paper on Rhinosinusitis and Nasal Polyps. 2020.

Higgins TS, Thorp B, Rawlings BA, et al. Outcome results of endoscopic vs craniofacial resection of sinonasal malignancies: a systematic review and pooled-data analysis. Int Forum Allergy Rhinol. 2011 Jul-Aug;1(4):255-61.

Kılıç S, Kılıç SS, Baredes S, et al. Comparison of endoscopic and open resection of sinonasal squamous cell carcinoma: a propensity score-matched analysis of 652 patients. Int Forum Allergy Rhinol. 2018 Mar;8(3):421-434.

Kim JS, Kwon SH. Recurrence of sinonasal inverted papilloma following surgical approach: A meta-analysis. Laryngoscope 2017;127(1):52-58.

Lourijsen ES, Reitsma S, Vleming M, et al. Endoscopic sinus surgery with medical therapy versus medical therapy for chronic rhinosinusitis with nasal polyps: a multicentre, randomised, controlled trial. Lancet Respir Med. 2022 Apr;10(4):337-346.

Maru YK, Gupta Y. Concha bullosa: Frequency and appearances on sinonasal CT. Indian J Otolaryngol Head Neck Surg. 1999 Dec;52(1):40-4.

Ni JS, Kompelli AR, Nguyen SA, et al. The Sinus and Nasal Quality of Life Survey (SN-5) in the management of pediatric chronic rhinosinusitis: a systematic review and meta-analysis. Int J Pediatr Otorhinolaryngol. 2018; 111:162-169.

North Carolina Medicaid, Division of Health Benefits, Clinical Coverage Policies, Physician Clinical Coverage Policy, Balloon Ostial Dilation. No: 1A-42. https://medicaid.ncdhhs.gov/documents/files/1a-42-2/open. Accessed August 25, 2022.

Orlandi RR, Kingdom TT, Smith TL, et al. International consensus statement on allergy and rhinology: rhinosinusitis 2021. Int Forum Allergy Rhinol. 2021 Mar;11(3):213-739.

Patel ZM, Thamboo A, Rudmik L, et al. Surgical therapy vs continued medical therapy for medically refractory chronic rhinosinusitis: a systematic review and meta-analysis. Int Forum Allergy Rhinol. 2017 Feb;7(2):119-127.

Rosenfeld RM, Piccirillo JF, Chandrasekhar SS, et al. Clinical practice guideline (update): adult sinusitis. Otolaryngol Head Neck Surg. 2015;152(2 Suppl): S1-S39.

Saltagi MZ, Comer BT, Hughes S, et al. Management of recurrent acute rhinosinusitis: A systematic review. Am J Rhinol Allergy. 2021 Feb 23:1945892421994999.

Scangas GA, Gudis DA, Kennedy DW. The natural history and clinical characteristics of paranasal sinus mucoceles: a clinical review. Int Forum Allergy Rhinol. 2013 Sep;3(9):712-7.

Singh GB, Arora N, Tomar S, et al. The role of sinus CT in surgical treatment decisions for chronic rhinosinusitis. Am J Otolaryngol. 2020 Nov-Dec;41(6):102729.

Smith TL, Schlosser RJ, Mace JC, et al. Long-term outcomes of endoscopic sinus surgery in the management of adult chronic rhinosinusitis. Int Forum Allergy Rhinol. 2019 Aug;9(8):831-841.

Vlastarakos PV, Fetta M, Segas JV, et al. Functional endoscopic sinus surgery improves sinus-related symptoms and quality of life in children with chronic rhinosinusitis: a systematic analysis and meta-analysis of published interventional studies. Clin Pediatr (Phila). 2013 Dec;52(12):1091-7.

Wood AJ, Zhou L, Wilkinson S, et al. Effectiveness of extensive sinus surgery with post-operative medical management for chronic rhinosinusitis. J Laryngol Otol. 2017 Feb 20:1-6.

Policy History/Revision Information

Date	Summary of Changes
11/01/2023	**Related Policies** • Added reference link to the Medical Policy titled *Rhinoplasty and Other Nasal Procedures (for North Carolina Only)* **Coverage Rationale** • Replaced language indicating "Functional Endoscopic Sinus Surgery (FESS) is unproven and not medically necessary for *any condition other than those listed* [in the policy as proven and medically

Date	Summary of Changes
	necessary]" with "Functional Endoscopic Sinus Surgery (FESS) is unproven and not medically necessary for *cases of Chronic Rhinosinusitis (CRS) or Recurrent Acute Rhinosinusitis (RARS)* that do not meet the *criteria* [listed in the policy as proven and medically necessary]" **Supporting Information** • Updated *Clinical Evidence* and *References* sections to reflect the most current information • Archived previous policy version CSNCT0578.06

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state, or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state, or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state, or contractual requirements for benefit plan coverage govern. Before using this policy, please check the federal, state, or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the InterQual® criteria, to assist us in administering health benefits. The UnitedHealthcare Medical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.