

# Coding and Reimbursement for Endoscopic Endonasal Surgery of the Skull Base

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J Neurol Surg B 2019;80(suppl S2):S247–S254.

The American Medical Association's (AMA) Current Procedural Terminology (CPT) codes provide the national standard for reporting medical services and procedures performed by physicians. As such, these codes must be used to report services to third party payers and are the basis for reimbursement. Unfortunately, the codes do not always sufficiently describe the procedure, or may not even exist for the procedure, performed.

Endoscopic endonasal surgery of the skull base (EESSB) is now well established as an alternate surgical technique/approach for the treatment of skull base pathology but is not universally practiced at all institutions that perform skull base surgery. As a result, CPT codes do not exist for most EESSB procedures. Typically, EESSB is performed jointly by the otolaryngologist-head and neck surgeon (ENT) and neurosurgeon (NS). Therefore, coding can be complicated and third-party payers are often not familiar with the services provided, and reimbursement issues such as delayed or reduced payments result.

As the number of trained surgeons continues to expand, there is diversity of opinion and practice regarding optimal CPT coding. There is a recognized knowledge gap regarding current coding options for EESSB.

The purpose of this white paper is to provide surgeons, coders, billers, and third party payers a comprehensive understanding of current coding and reimbursement implications for EESSB procedures. Payer medical directors and associated professionals will find this paper a valuable source of information about EESSB to facilitate medical policy development and appropriate adjudication and payment of claims. This white paper is a collaboration of KarenZupko & Associates, Inc. (KZA) and the North Amer-

ican Skull Base Society, with representation from NS and ENT. As such, it provides *guidelines* for coding but is not intended to represent the official recommendations of physician specialty societies, governmental regulatory agencies, insurance providers, or healthcare consultants. Areas of controversy are noted with acknowledgement of divergent opinions. The NASBS and KZA assume no liability for any fraudulent claims or penalties resulting from coding practices as represented here.

## Sources of Information

KarenZupko & Associates, Inc. is a private practice management consulting company that has extensive experience advising clients (physicians, hospitals, institutions and physician specialty societies) regarding best coding practices.

A survey of major skull base centers represented by the NASBS provided background information regarding current practices and knowledge gaps. Additional input was solicited from specialty surgical societies, in particular the American Rhinologic Society as well as CPT publications.

## History of the Skull Base Surgery CPT Codes (61580-61619)

Understanding the history of the skull base surgery CPT codes and their intended use is important as it sets the stage for accurate coding of EESSB procedures.

Existing open skull base surgery CPT codes, involving a skin incision(s), were implemented in 1994 several years prior to the introduction of the endoscopic endonasal

technique to resect skull base lesions. The endoscopic pituitary tumor resection code, 62165, was implemented in 2003 to provide an appropriate method to report the resection specifically of a pituitary tumor performed endoscopically rather than the traditional transnasal or transseptal (61548) or craniotomy (61546) approaches. As described, existing skull base codes (circa 1994) are used for resection or excision of neoplastic (e.g., tumor), vascular (e.g., angioma) or infectious lesions (e.g., osteomyelitis) of the skull base. They were not intended for use to address other skull base conditions such as traumatic injuries (e.g., fracture treatment) or aneurysms.

The structure of existing open skull base surgery CPT codes differs from other surgical codes which typically describe the incision/approach, repair or resection of the pathology and the usual closure in a single code. In contrast, the open skull base codes are separated into three types of codes/procedures: 1) the approach, 2) the definitive procedure, and 3) subsequent reconstruction, when required. The approach and definitive procedure codes are further divided into 3 types according to the specific anatomic location of the skull base in which the procedure is performed: anterior cranial fossa, middle cranial fossa, and posterior cranial fossa.

**Approach Codes (61580-61598)**

Existing open skull base approach codes describe the surgical work required to obtain adequate exposure to the lesion including making the incision(s) and dissection to the level of the pathology. Again, these codes are divided into 3 areas according to the location of the pathology—the anterior, middle, or posterior cranial fossae.

**Definitive Procedure Codes (61600-61616)**

The open definitive procedure codes describe the excision or resection of a neoplastic, vascular or infectious lesion in the three cranial fossae of the skull base. These codes also describe the necessary direct closure of the operative tract, including the dural repair for the intradural definitive procedure codes. The dural repair for open skull base definitive procedure codes, at the time of the intradural resection, includes any mechanism within the same surgical exposure (e.g., fascial graft) used to close the dura.

**Repair and/or Reconstruction of Surgical Defects of Skull Base Codes (61618-61619)**

Because the open definitive procedure codes include the dural repair, these codes are used to describe “secondary” reconstructive procedures, meaning at a separate operative session. A typical example is an open repair of a postoperative cerebrospinal fluid leak after a procedure originally coded with the open skull base surgery codes. Coding options for more complex primary reconstructions is addressed later in the white paper.

**Code Combinations**

The open skull base surgery codes are an individual subset of surgical CPT codes. Use of the codes requires a “pair” using an open approach code with an open definitive procedure code to describe a complete procedure. If an open skull base approach code is performed and ultimately billed, then a corresponding open skull base definitive procedure code would be performed/billed by the same or different surgeon. For example, if the ENT surgeon performs the approach (e.g., 61580) and the NS resects the tumor which requires intradural closure (e.g., 61601), then each surgeon will report their own CPT code. The point is that the two codes together, approach and definitive procedure, describe a complete procedure.

It is not appropriate to report an open approach code without the same, or different, surgeon reporting an open definitive procedure code because the approach is not a complete procedure. Conversely, it is not appropriate to report an open definitive procedure code without the same, or different, surgeon reporting an open approach code because the approach activity is not included in the definitive procedure codes. The point is that neither the open approach nor the open definitive procedure codes describe a complete procedure.

Additionally, the open skull base surgery codes should not be used in combination with other procedure codes such as a craniotomy, mastoidectomy, or other another code that would describe the same, or portion thereof, service. For example, it is not accurate to report an open skull base approach code with a stand-alone craniotomy code such as 61546 for a craniotomy to resect a pituitary tumor. Doing so would be “over-reporting,” “or unbundling”, the approach when the single code (61546) describes a complete procedure.

The table below shows 4 common open skull base procedure scenarios and the correct, and incorrect, use of existing skull base codes that summarize the previous discussion.

Scenario	Correct coding	Incorrect coding
Craniotomy for excision of pituitary tumor	61546 (global service code)	61546 (global service code) 61601 (definitive skull base code)
ENT performs an open skull base approach and NS performs an open resection of intradural skull base tumor	ENT: open skull base approach code NS: Open skull base definitive procedure code	ENT: open skull base approach code and mastoidectomy code NS: Open skull base definitive procedure code and open skull base secondary repair of dura code
NS performs an open skull base approach and open resection of intradural skull base tumor	Open skull base approach code and open skull base definitive procedure code	Open skull base approach code, global craniotomy code, cranioplasty code, and open skull base secondary repair of dura code
ENT performs an open skull base approach and open resection of extradural skull base tumor	Open skull base approach code and open skull base definitive procedure code	Open skull base approach code, mastoidectomy code, and open skull base definitive procedure code

The open skull base surgery codes may be reported with codes for supportive services such as placement of a lumbar drain (62272), microsurgical techniques using the operating microscope (+69990), stereotactic navigation (+61781, +61782). These services are not included in the primary procedure, the open skull base code(s), by conventional CPT coding guidelines.

## Endoscopic Excision of a Pituitary Tumor (62165)

Currently, only one CPT code exists that describes an endoscopic endonasal procedure for resection of a skull base tumor - 62165 [*Neuroendoscopy, intracranial; with excision of a pituitary tumor, transnasal or trans-sphenoidal approach*]. CPT 62165 is a global service code which means the code includes the approach, tumor resection and direct closure of the operative field.

### Co-surgery (Modifier 62)

When two surgeons participate in the procedure together performing different parts of the procedure, then each surgeon reports the same code with modifier 62 [*Two Surgeons*] for co-surgery. For example, in an endoscopic endonasal excision of a pituitary tumor case, the otolaryngologist (ENT) typically performs the approach and the neurosurgeon (NS) performs the tumor resection. Since neither surgeon performs the entire procedure him/herself, each physician reports 62165 with modifier 62 to reflect co-surgeon activities.

Both surgeons document their service in an operative report listing the other as a co-surgeon. Each surgeon documents their own activity and refers to the other surgeon's operative report for the portion(s) of the procedure that they did not personally perform. Some surgeons choose to describe the entire operation in their own operative report including the portions of the procedure that they did not perform. This is acceptable as long as that surgeon's operative report clearly delineates the portion that they personally performed and the two surgeons' operative reports do not include conflicting information about the procedure.

Neurosurgeons that perform the endoscopic endonasal excision of a pituitary tumor without assistance of ENT will report 62165 without the co-surgeon modifier (62) since they performed the global service.

### Reimbursement Implications

In general, 62.5% of the payer fee is allowed for each co-surgeon using modifier 62. Both surgeons are then bound by payer postoperative global period guidelines; Medicare's is 90 days.

### Intraoperative Global Service

CPT is the standard code set and physicians are required to follow these guidelines. There is a paucity of information in CPT about what services are included in the surgical CPT codes. For example, there are no guidelines in CPT

that specifically state fluoroscopy is included in procedures where it is used for localization before or after an incision is made. That said, general CPT coding guidelines assume that if fluoroscopy is part of the "usual" procedure then it is included in the surgical code and not separately reported.

To allay coding confusion for neurosurgical procedures, the American Association of Neurological Surgeons' (AANS) developed the Guide to Coding: Mastering the Global Service Package for Neurological Surgery which is updated annually. This publication provides extensive detail about the intraoperative services included in a surgical CPT code. The American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) does not have similar global service guidelines.

## Use of an Unlisted Code for Endoscopic/Endonasal Skull Base Surgery

Presently, there are no existing CPT codes that accurately describe endoscopic endonasal surgery (also known as extended endonasal approach) for removal of a skull base tumor. The endoscopic endonasal pituitary tumor removal code (62165) is intended only for resection of pituitary tumors via this approach. Therefore, per CPT guidelines, an unlisted code must be reported for the endoscopic endonasal approach for removal of non-pituitary neoplastic, vascular or infectious lesions at the base of the skull.

CPT guidelines instruct physicians not to select a CPT code that merely approximates the service provided. Furthermore, CPT guidelines state if no such procedure or service exists, then the appropriate unlisted procedure or service code is reported.

Unlisted codes are reimbursed by many payers, contrary to popular belief, including Medicare. Endoscopic endonasal skull base surgery is not unfamiliar to many payers and for physicians who perform these procedures routinely, an organized approach for communicating with payers will result in reasonable and timely reimbursement.

The use of existing open skull base surgery codes for EESSB is not appropriate since the CPT codes describe an open approach involving a skin incision(s). However, the existing open skull base codes may be used as comparison, or base, code(s) to determine a fee for the unlisted code.

Additionally, assigning existing codes for the work performed by ENT, even though endoscopic codes may exist that closely resemble the work performed, is not appropriate. For example, reporting endoscopic sinus surgery codes (e.g., 31253-31288) or the septoplasty code (30520) is not appropriate. This is considered "unbundling"; charging for services separately rather than as part of a single inclusive code and also has implications for NS coding.

### Assigning Comparison Codes for the Unlisted Code

An unlisted code is a generic code used to report a procedure for which there is no existing CPT code. The physician must assign a description and fee to an unlisted code so it can be recognized at the payer level. Therefore, an existing CPT code(s) is used as a comparison code for description and fee assignment.

Medicare assigns a 90-day postoperative global period to the existing open skull base codes. If the unlisted code is compared to an open skull base code, then the fee represents a service with a postoperative global period of 90 days. Endoscopic sinus debridements (31237) may be separately reported in the global period using modifier 58 [*Staged or Related Procedure or Service by the Same Physician During the Postoperative Period*].

However, it would not be appropriate for one surgeon's comparison code to be an open skull base code (61580-61616) and the other surgeon's code to be from the endoscopic sinus surgery category (31253-31288). As a reminder, the open skull base codes are designed to be paired codes – the open approach and definitive procedure codes are reported by one or more surgeons.

In endoscopic endonasal skull base procedures, ENT typically performs the approach while NS resects the tumor. Translated to CPT coding, ENT's unlisted code is compared to an open skull base approach code while NS's unlisted code is compared to an open definitive procedure code. As previously discussed, it would not be proper coding for ENT to compare using the endoscopic sinus surgery code(s) while NS compares to an open skull base definitive procedure code.

Payer recognition of unlisted codes is not consistent across the country or even within a single region or state. Technically, by CPT coding conventions, both surgeons would report 64999 [*Unlisted procedure, nervous system*] since the comparison codes used are in the nervous system section (61000-64999) of the coding structure. Ideally, payers would recognize and pay appropriately when two surgeons in the same or different practices report the same unlisted code, 64999.

### Suggested Coding Strategies

There are multiple ways for both surgeons to report an unlisted code for endoscopic endonasal procedures. The surgeons may share the same unlisted code and append modifier 62, or the surgeons may share the same unlisted code without appending modifier 62, or the surgeons may report different unlisted codes (e.g., NS reports 64999 while ENT reports 31299 [*Unlisted procedure, accessory sinuses*]).

Three different coding strategies are shown in the table below with comments.

Several years of experience have shown that some payers do not recognize coding strategies 1 and 2 in the above table. When this happens, coding strategy 3 is recommended where ENT reports an unlisted code from the sinus-related CPT codes, 31299, since the exposure is through the nose and sinuses.

We do not recommend that each surgeon report individual component codes (e.g., endoscopic sinus surgery using 31253-31288, septoplasty using 30520) instead of an unlisted code for these procedures as this would not be in the spirit of CPT coding guidelines.

Successful use of an unlisted code strategy may only become apparent by trial and error once it becomes clear that a specific payer requires a different unlisted code for each surgeon.

Regardless of the unlisted CPT code selected (31299 or 64999), it is critical that each physician describe, in the operative report, only the actual work personally performed and not the work or procedures performed by the other physician (co-surgeon). The work may vary depending on the circumstances.

### Example of Using an Unlisted Code

Consider an endoscopic endonasal approach to the skull base with resection of an intradural tumor with closure. ENT typically assists the NS by holding the endoscope during the neurosurgical resection.

ENT would report 31299 for their portion of the procedure and the unlisted code would include the transnasal approach to the skull base, entering the skull base but not the dura, assisting the neurosurgeon during the dural opening and tumor resection, and then the ENT performing any closure (extradural repair). ENT's comparison code is the open anterior skull base approach code, 61580 [*Craniofacial approach to anterior cranial fossa; extradural, including lateral rhinotomy, ethmoidectomy, sphenoidectomy, without maxillectomy or orbital exenteration*]. The ENT's fee for 31299 would also include their assistant surgeon activity (modifier 80 or 82) on the NS's comparison code. If the closure is entirely performed by NS with visualization provided by ENT, then NS would document the closure as part of their surgical activity with ENT as assistant surgeon.

NS would report 64999 for their portion of the endoscopic endonasal resection of an anterior skull base fossa tumor and the code would include the transnasal dural opening, tumor

Coding strategy for an unlisted code	ENT reports	NS reports	Comments
1. Both surgeons report the same unlisted code	64999	64999	Some payers will recognize this and reimburse accordingly while others will reject the claim as unprocessable.
2. Both surgeons report the same unlisted code with modifier 62	64999-62	64999-62	CPT guidelines state not to use a modifier on an unlisted code. However, some payers do recognize modifier 62 on an unlisted code.
3. Both surgeons report their own unlisted code	31299	64999	More frequently recognized by payers and reimbursed.

resection and dural closure. The NS's comparison code is the paired open anterior skull base definitive procedure code, 61601 [*Resection or excision of neoplastic, vascular or infectious lesion of base of anterior cranial fossa; intradural, including dural repair, with or without graft*]. The NS fee for 64999 might also include assistant surgeon activity on the ENT's comparison open approach code if applicable. Note that the assistant's code is also factored into the unlisted code as a comparison code; it is not used separately with the unlisted code.

The table below summarizes the applicable codes in this example using coding strategy 3 described above.

Scenario: endoscopic endonasal resection of a tumor in the anterior cranial fossa	Otolaryngologist	Neurosurgeon
Unlisted code	31299	64999
Comparison code(s) assuming each surgeon assists the other	61580 61601-80 (or 82)	61601 61580-80 (or 82)

### Unlisted Code Templates

Developing comparison codes, to determine the fee for the billed unlisted code, and communicating this to coders, billers and even payers can be confusing. Therefore, we recommend that ENT and NS practices work together to develop three to four coding scenarios to “template” the coding and billing for these procedures. This will streamline the coding and billing process and, hopefully, payer reimbursement. For example, the surgeons can instruct the coders and billers to use “template A” rather than having to determine comparison codes and fees every time an endoscopic endonasal skull base case is performed.

Be sure to describe the procedure succinctly in Box 19 (Additional Claim Information) on the CMS 1500 claim form at the time of charge entry. For example, state “endoscopic skull base surgery” so the payer knows why an unlisted code is being used.

The table below shows 3 examples of coding templates showing the unlisted codes and comparison codes with a space for the practice to insert the fee.

Scenario	Otolaryngologist <sup>a</sup>	Neurosurgeon <sup>a</sup>
A. Endoscopic endonasal resection of an intradural anterior cranial fossa tumor	31299 Fee \$ _____ Comparison codes/fees: 61580	64999 Fee \$ _____ Comparison codes/fees: 61601
B. Endoscopic endonasal resection of an intradural middle cranial fossa tumor	31299 Fee \$ _____ Comparison codes/fees: 61590	64999 Fee \$ _____ Comparison codes/fees: 61606
C. Endoscopic endonasal resection of an intradural posterior cranial fossa tumor	31299 Fee \$ _____ Comparison codes/fees: 61598	64999 Fee \$ _____ Comparison codes/fees: 61616

<sup>a</sup>Also report the other surgeon's code with the appropriate assistant surgeon modifier (80 or 82) if applicable.

Other codes such as stereotactic navigation (+61781 or +61782), placement of a lumbar drain (62272), harvest of an abdominal fat graft (20926) may be reported in addition to the unlisted code by the surgeon who performed the service.

► **Appendix A** includes several tables showing the coding for common endoscopic endonasal skull base procedures as well as the codes for frequently performed additional services.

### Additional Procedures

Each surgeon may separately bill for additional services, performed and documented, using usual CPT codes. Additional services oftentimes reported in endoscopic endonasal skull base surgery include, but are not limited to:

- 62272 [*Spinal puncture, therapeutic, for drainage of cerebrospinal fluid (by needle or catheter)*],
- +61781 [*Stereotactic computer-assisted (navigational) procedure; cranial, intradural (List separately in addition to code for primary procedure)*],
- 61210 [*Burr hole(s); for implanting ventricular catheter, reservoir, EEG electrode(s), pressure recording device, or other cerebral monitoring device (separate procedure)*],
- 20926 [*Tissue grafts, other (e.g., paratenon, fat, dermis)*].

For example, the NS may separately report procedures such as placement of a ventricular catheter through a separate burr hole (CPT 61210) or placement of a lumbar drain (62272) in addition to the unlisted code used to represent the primary procedure. The ENT, for example, may harvest an abdominal fat graft because it is obtained through a separate skin incision. Therefore, ENT would separately report CPT 20926 (tissue graft) for this service.

Do not append modifier 62 to +61781 as only one physician may report this service; namely, the physician who performs the majority of the service (e.g., setting up the stereotactic navigational system, registering coordinates, planning the trajectory).

It would not be usual to separately report +69990 [*Microsurgical techniques, requiring use of operating microscope (List separately in addition to code for primary procedure)*] since the skull base procedure is performed endoscopically.

Additionally, much like in coding for functional endoscopic sinus surgery procedures (e.g., 31253-31288), it is not accurate to report a code for a septoplasty (30520) when performed for access or as part of the approach. Be sure to clearly document

the medical necessity, in terms of clinical history and exam, for performing the septoplasty if it will be separately reported.

### Use of Modifier 22 (Increased Procedural Services)

Modifier 22 is appended to a surgical CPT code to indicate the service provided went “above and beyond” the “usual” case. The billed fee is increased commensurate with the percentage of added case difficulty. For example, if the procedure is 50% more difficult, then the billed fee for that CPT code is increased by 50%. CPT states to append modifier 22 “when the work required to provide a service is substantially greater than typically required.” CPT also states that the surgeon’s documentation must “support the substantial additional work and the reason for the additional work (ie, increased intensity, time, technical difficulty of procedure, severity of patient’s condition).” For example, an endoscopic pituitary removal with some cavernous sinus invasion may be reported using 62165-22. For extensive cavernous sinus involvement, use of an unlisted code with comparison to the open skull base codes is an alternative.

A separate Complexity, or Findings at Surgery, paragraph should be documented in the operative report preferably prior to the lengthy procedure detail section of the note. Additionally, the body of the operative note should substantiate what is documented in the Complexity, or Findings at Surgery, paragraph. Be sure to quantify the added complexity such as with time or a percentage of difficulty. Payers look at this documentation to determine whether an increase in payment is allowed.

It is not appropriate, per CPT guidelines, to report an unlisted code such as 64999 with modifier 22. Since the unlisted code does not represent a consistent procedure, appending modifier 22 for added complexity is not logical. However, the comparison code may be appended with modifier 22 and that fee increased to achieve the fee for the unlisted code. Be sure the documentation supports the added complexity.

### Repair of the Dura/Closure

Closure of the dura is included as part of the unlisted procedure code since the comparison code, an intradural open skull base definitive procedure code, includes the dural repair at the same operative session.

CPT guidelines include direct surgical wound closure in the resection/excision code. An exception is if graft material is harvested through a separate surgical exposure as in a separate skin incision; in that case, a separate graft harvest code may be reported. Previously discussed was an example of abdominal fat graft (20926) where the graft harvest for surgical site closure may be separately reported by the surgeon who harvests the graft. Placement of the graft is included in the primary procedure code as part of the closure.

An unresolved issue is whether reconstruction with a local vascularized flap (e.g., nasoseptal flap, middle turbinate flap, lateral nasal wall [inferior turbinate] flap), at the time of EESSB, constitutes a “separate surgical exposure”. Advocates of reporting a separate code argue that elevation of the flap is not a necessary or routine part of the surgical approach.

It is not accurate to report 15740 [*Flap; island pedicle*] or 15750 [*Flap; neurovascular pedicle*] for a nasoseptal vascularized pedicle flap. CPT says the following about 15750: “This code includes not only skin but also a functional motor or sensory nerve(s). The flap serves to reinnervate a damaged portion of the body dependent on touch or movement (e.g., thumb).” While the nasoseptal flap is created through the same surgical corridor as the primary procedure, it is performed by making separate incisions to harvest separate graft material. Therefore, the work may be separately reported but not with an Integumentary System CPT code such as 15740 or 15750.

Additionally, it is not accurate to report 15576 [*Formation of direct or tubed pedicle, with or without transfer; eyelids, nose, ears, lips, or intraoral*] for the nasoseptal flap as this code is used to report nonadjacent tissue transfers involving skin and subcutaneous tissues – not nasal mucosa – and the formation of direct or tubed pedicles. Nor is 15733 [*Muscle, myocutaneous, or fasciocutaneous flap; head and neck with named vascular pedicle (ie, buccinators, genioglossus, temporalis, masseter, sternocleidomastoid, levator scapulae)*] appropriate because the code describes a muscle, myocutaneous, or fasciocutaneous flap on a named vascular pedicle, not nasal mucosa.

There is also not a CPT code for placement of an artificial graft in the skull base. This activity would be included in the primary procedure code for the service reported. Alternatively, one could report an unlisted code such as 17999 [*Unlisted procedure, skin, mucous membrane and subcutaneous tissue*] for this and use +15777 [*Implantation of biologic implant (e.g., acellular dermal matrix) for soft tissue reinforcement (ie, breast, trunk) (List separately in addition to code for primary procedure)*] as a comparison code.

The CPT Assistant, an American Medical Association publication, from March 2000 confirms that it is not appropriate to separately report a skull base dura closure code with a skull base definitive procedure code. This question and answer is noted below.

### Question

Should I report code 61618 for the primary closure of the dura following ligation of an intracranial internal carotid artery aneurysm?

### AMA Comment

Codes 61618 and 61619 may be reported if, after skull base surgery, the patient develops a cerebral spinal fluid leak requiring secondary repair or if the defect repair was planned as a second, staged procedure. CPT does not specify a period of time that must pass between the original skull base surgery and the secondary repair for CSF leak. If an additional procedure is required to reconstruct the leaking dura, then the appropriate code for the secondary repair may be reported. In your question, you indicate that primary repair of the dura was performed, so the repair would not be separately reported. As stated in the surgery of skull base guidelines, the definitive procedure describes the repair,

biopsy, resection, or excision of various lesions of the skull base and, when appropriate, primary closure of the dura, mucous membranes, and skin.

If the dural repair is more complex than a primary closure, which is included in the open definitive procedure skull base codes, then modifier 22 may be appended to the comparison code used for fee determination of the unlisted code and the billed fee increased.

Alternatively, an unlisted code such as 30999 [*Unlisted procedure, nose*] may be separately reported to reflect the additional work of making a separate incision to harvest/place a nasoseptal flap. The comparison code, for fee determination, could be a code such as 14060 [*Adjacent tissue transfer or rearrangement, eyelids, nose, ears and/or lips; defect 10 sq cm or less*] or 15740.

See ► **Appendix A** for examples of coding for reconstruction following endoscopic endonasal surgery of the skull base.

### Repair of Cerebrospinal Fluid Leak

Closure of the dura, and any associated cerebrospinal fluid (CSF) leak repaired at the lesion removal session, is included in the open skull base definitive procedure code used as a comparison code for the unlisted code. Repair of a CSF leak during the initial procedure is included as part of the surgical wound closure and not separately billed.

A return to the operating room subsequent to the initial procedure, for repair of a CSF leak, may be separately reported. The three existing CPT codes for this activity are included in the table below.

CPT code	Description	Comments
62100	Craniotomy for repair of dural/cerebrospinal fluid leak, including surgery for rhinorrhea/otorrhea	This code includes an open craniotomy approach, repair and closure
31290	Nasal/sinus endoscopy, surgical, with repair of cerebrospinal fluid leak; ethmoid region	Includes an endoscopic approach, repair and any associated closure
31291	Nasal/sinus endoscopy, surgical, with repair of cerebrospinal fluid leak; sphenoid region	

Use an unlisted CPT code such as 64999 if none of the above codes accurately describes the procedure performed. Again, it is not accurate to report any of the above codes for repair of the dura at the initial operative session.

Append modifier 78 [*Unplanned Return to the Operating/Procedure Room by the Same Physician or Other Qualified Health Care Professional Following Initial Procedure for a Related Procedure During the Postoperative Period*] to the code reported for repair of a CSF leak at a subsequent operative session.

### Assistant Surgeon Services

The services of an assistant are reported on the CPT code(s) that the primary surgeon performed and appended with either modifier 80 [*Assistant Surgeon*] or 82 [*Assistant Surgeon (when qualified resident surgeon not available)*]. Modifier 82 is used when a faculty surgeon assists another faculty surgeon and a qualified resident is not available. The primary faculty surgeon is responsible for documenting, in the operative note, the presence of the faculty assistant surgeon as well as the unavailability of a qualified resident. Modifier 80 is used for an assistant surgeon in a non-resident setting.

Typically the billed fee for a code appended with modifier 80 or 82 is less than the fee for the code when not appended with the modifier. Medicare's allowable payment for an assistant surgeon is 16% of the primary surgeon's allowable; the payment will also be reduced for multiple (modifier 51) and bilateral (modifier 50) procedures if applicable. Other payers may reimburse at a higher, or lower, rate than Medicare's.

An assistant surgeon may be of the same or different specialty. The important documentation factor is for the primary surgeon to state the necessity for the assistant in the operative report.

### Billing for a Fellow

Accurate billing for a fellow is institution-specific depending on the fellowship certification status. Practices are advised to consult the Accreditation Council for Graduate Medical Education (ACGME) guidelines for billing guidelines for ACGME-approved fellowship programs,

In non-ACGME fellowship programs, the fellow should be separately credentialed with payers as a board-eligible, independent provider who can then bill as an assistant surgeon (modifier 80 or 82).

### Recommended Reimbursement Strategies for Endoscopic Endonasal Surgery of the Skull Base

Unfortunately, many payers do not have a strategy for reimbursing unlisted CPT codes. We hope this white paper provides substantial and convincing information so that payments to surgeons are appropriate and timely.

For surgeons, we recommend the following actions to ensure optimal reimbursement for these services:

- Contact your organization's managed care contracting office and set up a meeting with them to describe this novel technique as well as the coding and anticipated reimbursement issues. They are your partners in ensuring successful and adequate payments.
- Request that your managed care contracts include a clause requiring payers to reimburse a specific percentage of your billed charge since unlisted codes do not have an assigned Medicare RVU or payment amount. Request that this clause be included in a revised contract if your current contract currently does not address use of an unlisted procedure code.

- Meet with the medical directors and provider relations representatives (together at the same meeting) of your major third party payers and present a professional PowerPoint talk with relevant and descriptive patient case studies. Be sure to show how performing the procedure endoscopically results in lower cost, decreased length of stay, decreased morbidity and higher quality of care.
- Use the sample Written Prior Authorization letters in Appendices B and D to obtain approval from the payer, in writing prior to the surgery, of the procedure. The payer's written approval is more formal and more binding than a telephone precertification.
- Also, use the sample Claim Denial Appeal letters in Appendices C and E to appeal claim denials. The second level appeal is to request a peer-to-peer phone call between the surgeon and a board-certified specialty-specific (otolaryngology, neurosurgery) physician claim reviewer at the payer level.
- Some academic practices find it beneficial to bill and collect for both departments (otolaryngology and neurosurgery) out of a separate, combined billing area. This allows separation of these combined cases, from usual department billing/collections efforts, resulting in easier data analysis and sharing of reimbursements. For example, while Medicare may not provide significant additional payment on unlisted codes, you may find that other payers do. You can easily calculate the average payment per case if these services are billed from a separate billing area. The funds can also be more easily divided in a manner equitable to both departments if desired.

### Physician Compensation Issues Using an Unlisted CPT Code

Unlisted CPT codes are not assigned relative value units (RVUs) by Medicare just as payers, including Medicare, do

not have an assigned allowable (also called a fee schedule) for these codes. It is important that physicians performing these procedures, who are on an RVU-based compensation plan, be credited for the RVUs that are assigned to the comparison (base) code(s) used to value the unlisted code. Doing so allows the physician to obtain "credit" for the procedure and also encourages physicians to perform contemporary procedures and submit accurate codes.

### Conclusion

Successful reimbursement for endoscopic endonasal skull base procedures is a multifaceted process and requires careful attention throughout the revenue cycle particularly with obtaining prior payer approval, development of a coding strategy using an unlisted code, appeal of denied claims as well as managed care contract specifications. Payer education about the novel technique may also be necessary so that difficulties obtaining prior authorization, claim denials and payment delays can be minimized.

We hope this white paper has assisted with a better understanding of the coding and reimbursement issues for endoscopic endonasal surgery of the skull base.

### Conflicts of Interest

Kimberley Pollock: employee of KarenZupko & Associates, Inc.; NASBS payment to employer KarenZupko & Associates, Inc.

Roy Casiano: consultant for Olympus ENT, Medtronic, and NeilMed, Inc.

Carl Snyderman: none declared.

John Golfinos: none declared.

Adam Folbe: owner of Quintree Medicine; consultant for Olympus.