Coding, Documentation and Compliance Update:
Craniomaxillofacial and Thoracic Services

CODING, DOCUMENTATION, AND COMPLIANCE UPDATE
Craniomaxillofacial and Thoracic Services

Presented by:
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IMPACT

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Hosted by:
DePuy Synthes Companies

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Inpatient DRG Determination

- Principal diagnosis
- Secondary diagnoses
- Procedure codes
- Gender
- Age
- Discharge Disposition

Chief Complaint vs. Principal Diagnosis

- The **CHIEF COMPLAINT** can be defined as the ‘presenting problem’ for which the patient presents to the hospital or other site for care.

- The **PRINCIPAL DIAGNOSIS** is defined in the Uniform Hospital Discharge Data Set (UHDDS) as “that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.”
Guidelines for Reporting Diagnoses

• Report all conditions that coexist at the time of admission, that develop subsequently, or that affect the treatment received and/or the length of stay.

• Conditions documented at discharge as uncertain (e.g., rule out, possible, probable or suspected) are coded as if they exist, in anticipation that further diagnostic studies may be performed.

• Report conditions affecting patient care
  • clinical evaluation
  • therapeutic treatment
  • diagnostic procedures
  • extended LOS
  • increased nursing care or monitoring

Inpatient “CC’s” -- Complications & Comorbidities

• Complication – A condition that arises during the hospital stay that extends the length of stay by at least one day in 75% of the cases.

• Comorbidity – Pre-existing condition that will extend the length of stay by at least one day in 75% of the cases because it coexists with the principal diagnosis.

• The MS-DRG system recognizes both CC and major CC (MCC).
Inpatient “CC’s” -- Complications & Comorbidities

<table>
<thead>
<tr>
<th>Examples of Vague Language</th>
<th>More Specific Documentation Which May Affect DRG Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes poorly controlled</td>
<td>Uncontrolled diabetes, specific manifestations</td>
</tr>
<tr>
<td>Anemia</td>
<td>Specific type of anemia (eg, acute blood loss)</td>
</tr>
<tr>
<td>Respiratory insufficiency</td>
<td>Respiratory failure, and acute vs. chronic</td>
</tr>
<tr>
<td>NA = 120</td>
<td>Hyponatremia, and cause if known</td>
</tr>
<tr>
<td>Renal insufficiency</td>
<td>Severity of chronic kidney disease</td>
</tr>
<tr>
<td>Tachycardia</td>
<td>Specific type of tachycardia</td>
</tr>
<tr>
<td>Pressure ulcer</td>
<td>Pressure ulcer stage, site, and if pre-existing</td>
</tr>
<tr>
<td>Obesity</td>
<td>Morbid obesity, and Body mass index</td>
</tr>
</tbody>
</table>

MS-DRG Assignment

- The relationships between principal diagnosis, secondary diagnoses, and valid O.R. procedures drive MS-DRG assignment.
- The MS-DRG titles do not necessarily reflect all of the elements of an individual patient’s course of care.
- *Code according to the documented facts and coding guidelines.*
New Coverage Criteria Trends

- Healthcare payor entities have been adopting increasingly stringent coverage criteria.
- These guidelines may at times be more conservative than the clinical standards of care developed by specialty medical societies.
- The stricter criteria lead to a need for more specific documentation of patient history and other findings to support medical necessity.
- Existing coding does not always equate to insurance coverage/payment of a particular procedure or product.
- For questions and additional assistance, the DePuy Synthes CMF Coding and Reimbursement Hotline can be reached at 888-877-8152.

INPATIENT CODING ISSUES
Facility / Physician Coding Issues

Facilities may report procedures using one of two different coding systems:

- For inpatient services -- ICD-9-CM Volume III
- For outpatient services -- CPT® / HCPCS Codes

Physicians report procedures in all settings with CPT®.

These two coding systems do not directly “translate” on a code by code basis.

The payment methodologies and bundling issues are not the same, even when both facility and physician report with CPT® codes.

Documentation Drives Coding

In all circumstances, documentation indicates the services which may be reported. The importance of consistent, complete documentation in the medical record cannot be overemphasized.

Coding is case and patient specific. It is important for the coder and physician to communicate to ensure accurate documentation and coding.

Continued monitoring of complex cases which may arise will help ensure accurate coding.
Basic ICD-9-CM Procedure Coding

• If the descriptor for the procedure code does not include “bilateral,” the service may be coded twice to designate both left and right.

• In most circumstances, the operative approach is not reported separately from the procedure. There is usually an instructional note of “omit code.”

• When a procedure is initiated, but not fully completed, code only to the extent of services provided.

• The Principal procedure is that performed for definitive treatment rather than one performed for diagnostic or exploratory purposes, or necessary to take care of a complication, according to sequencing hierarchy.
Craniomaxillofacial Procedures

Craniomaxillofacial procedures include a range of reconstructive and restorative services:

- Restoration / Augmentation of Cranial Defects
- Mandible Reconstruction
- Mid-face Reconstruction
- Distraction Osteogenesis
- Orthognathic Surgery

These procedures may be performed with other separately identifiable procedure(s). The principal procedure would be that intended for definitive treatment of the principal diagnosis.

Vignette #1: Forehead Reconstruction

INDICATION: One year after frontal skull fracture with bone loss, 27-year-old male presents for reconstruction of most of the forehead and superior orbital rims.

DESCRIPTION OF PROCEDURE: The coronal incision is reopened, and the scarred operative site is dissected with protection of the frontal branches of the facial nerves and supraorbital nerves, as well as the possibility of dissection around bone gaps with exposed dura. Subsequently, exposure of frontal and orbital rim defects is performed, and the bony defects are reconstructed using a combination of bone allografts, reinforced bone cement, and prosthetic implant. Rigid fixation of the reconstruction and layered closure of the coronal incision are done.
## Vignette #1: Forehead Reconstruction

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>CPT / HCPCS PROCEDURE CODES</th>
<th>ICD-9 PROCEDURE CODES</th>
<th>DIAGNOSIS CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruction, entire or majority of forehead and/or supraorbital rims; with grafts (allograft or prosthetic material)</td>
<td>21179</td>
<td>76.46 76.92</td>
<td>738.19 905.0 V15.51</td>
</tr>
<tr>
<td>Anchors and screws for opposing bone to bone and soft tissue to bone</td>
<td>C1713</td>
<td>84.55</td>
<td></td>
</tr>
<tr>
<td>Insertion of synthetic implant in facial bones</td>
<td>Bundled</td>
<td>76.92</td>
<td></td>
</tr>
</tbody>
</table>

**CASE NOTES:** The application of the prosthetic implant and/or bone cement is considered inclusive in the primary surgical procedure. C1713 is not separately reimbursed, but is used internally by the facility. Per CMS, this code also applies to synthetic bone substitutes that may be used to fill bony void or gaps (i.e., bone substitute paste implanted into a bony defect created from trauma or surgery).

ICD-9-CM procedure code 76.46 does not include insertion of bone graft, prosthetic implant, or bone void filler.

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## Customized Patient-Specific Implants

For some craniomaxillofacial procedures, customized implants can be personalized to the patient's individual anatomy:

- Scheduling to allow adequate lead time for manufacture
- Pre-operative CT scan to develop virtual 3-D model, reported separately from the DRG for reconstruction.
- Some payors may deny reimbursement for this CT scan if documentation indicates the scan is only obtained for the purpose of creating a customized implant. However, if the CT scan is used for diagnosis or to aid in treatment such as determining bone quality, locating osteophytes, and/or clarifying alignment, then reimbursement is appropriate.
- The manufacturer's pre-operative planning and design services for the custom implant are typically not reimbursed by insurance.
- There is no carve-out or additional DRG or case reimbursement for customized implants.
**Vignette #2A – Craniotomy**

**INDICATION:** A 25-year-old male, involved in a motor vehicle accident, has suffered a severe traumatic brain injury and has been in the surgical intensive care unit for approximately 24 hours. An intracranial pressure (ICP) monitor was placed for recording of continuous ICP. The patient develops intracranial hypertension uncontrolled by medical therapy. A computed tomography (CT) scan reveals multiple nonhemorrhagic supratentorial contusions producing obliteration of the basal cisterns. Patient is taken to the operating room for a supratentorial decompression craniotomy with duraplasty.

**DESCRIPTION OF PROCEDURE:** Under general anesthesia, the head is positioned and fixed in a pin head holder, using care to protect the intracranial pressure device.

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**Vignette #2A – Craniotomy**

A bicoronal incision is made with elevation of a large bifrontal cranial bone flap. Meticulous hemostasis is observed. The frontal sinus opened during the craniotomy is stripped of its mucosa and obliterated with absorbable gelatin sponge. The dura is noted to be extremely tense.

The dura is then opened, beginning over the polar areas of the frontal lobes. The dural opening is made very low near the frontal skull base, the sagittal sinus is ligated at its rostral extremity, the falx cerebri is divided, and the dural opening is carried across midline for approximately 10 cm length opening from one temporal to the opposite temporal fossa, allowing the frontal lobes to expand through the dural opening.
Vignette #2A – Craniotomy

Hemostasis is ensured, and the dura is closed with a synthetic dural graft substitute in a watertight manner to allow for anterior expansion of the swollen brain. The bifrontal bone flap is not replaced. An epidural drain is left in place to prevent epidural hematoma formation. A two-layer closure of the scalp is then completed.

Next, a suitable area of the abdominal wall is prepped and draped in a sterile manner. An incision is made, and a subcutaneous pocket is created. Hemostasis is achieved. The cranial bone flap is placed into the subcutaneous space. Closure of the subcutaneous tissues and skin is completed. A sterile dressing is applied.

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>CPT / HCPCS CODES</th>
<th>ICD-9 PROCEDURE CODES</th>
<th>DIAGNOSIS CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cranietomy or craniotomy, decompressive, with or without duraplasty, for treatment of intracranial hypertension, without evacuation of associated intraparenchymal hematoma; without lobectomy</td>
<td>61322</td>
<td>01.24</td>
<td>851.00 907.0 E819 E000.9</td>
</tr>
<tr>
<td>Other repair of cerebral meninges (synthetic dural graft)</td>
<td>Bundled</td>
<td>02.12</td>
<td></td>
</tr>
<tr>
<td>Incision and subcutaneous placement of cranial bone graft</td>
<td>61316</td>
<td>86.09</td>
<td></td>
</tr>
</tbody>
</table>

CASE NOTES: Diagnosis code 851.00 – 5th digit indicates length of loss of consciousness, which is not specified here but may be noted elsewhere in the record. Intracranial hypertension is a late effect of the traumatic brain injury.
Vignette #2B -- Cranioplasty

**INDICATION:** A 25-year-old male who had an emergency craniotomy for decompression with intraoperative placement of bone graft into an abdominal subcutaneous pocket presents for elective cranioplasty repair of the skull defect.

**DESCRIPTION OF PROCEDURE:** The abdominal graft site incision is sterilized and draped. The previous incision is opened sharply, and the bone graft is identified. Using blunt dissection and electrocautery, the graft is freed from the surrounding tissue and temporarily placed in antibiotic solution on the back table, pending cranial implantation.

Attention is then turned to the skull defect. The scalp incision is reopened to expose the craniotomy site. The autograft bone is placed into the defect and secured into place with prosthetic plate and screws. The scalp is repaired with a layered closure and sterile dressing applied.

The abdominal wound is irrigated, hemostasis is ensured, and the skin is closed and dressed after completion of the cranial procedure.
Vignette #2B -- Cranioplasty

| PROCEDURES | CPT / HCPCS
PROCEDURE CODES | ICD-9
PROCEDURE CODES | DIAGNOSIS CODES |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cranioplasty with autograft (includes obtaining bone grafts); larger than 5 cm diameter</td>
<td>62147</td>
<td>02.04</td>
<td>738.19, V58.41, V15.52</td>
</tr>
<tr>
<td>Incision and retrieval of subcutaneous cranial bone graft for cranioplasty</td>
<td>62148</td>
<td>86.09</td>
<td></td>
</tr>
<tr>
<td>Insertion of skull plate</td>
<td>Bundled</td>
<td>02.05</td>
<td></td>
</tr>
</tbody>
</table>

**CASE NOTES:** CPT codes specify size of defect (greater or lesser than 5 cm). While this vignette does not state size, the original surgery notes a “large bifrontal cranial bone flap” and incision across the dura of 10 cm – this should be confirmed before assigning code. For CPT, initial placement of skull plate is included in cranioplasty.

As this is a staged procedure following earlier craniotomy, modifier -58 will apply for CPT codes if it has been less than 90 days.

Vignette #3 – Mandible Reconstruction

**INDICATIONS:** A 22-year-old male presents with an abnormal radiodensity in the right mandible, extending from the ramus to the second premolar, from the superior to the inferior border, with displacement of the inferior alveolar nerve to the inferior border of the mandible. He has biopsy-proven juvenile ossifying fibroma. Recent imaging revealed perforation of the lingual and inferior cortices and displacement of the nerve posteriorly and through the inferior border of the mandible. The lesion extends from the anterior ramus to the mental foramen and involves teeth #29 to #32. Four weeks ago, the teeth in the area were extracted. Patient presents today for mandibular resection of this lesion with reconstruction.
Vignette #3 – Mandible Reconstruction

DESCRIPTION OF PROCEDURE: With the patient under general anesthesia, a corticocancellous posterior iliac graft with platelet rich plasma is harvested. After bone harvest, the wound is closed in multiple layers, and a closed suction drain is placed. The wound is dressed, and the patient is turned to the supine position, prepped, and draped for the mandibular surgery.

The surgeon and staff rescrub, regown, and reglove before proceeding with the mandibular surgery. Using an extraoral approach, with sharp and blunt dissection, access is gained to the inferior border of the mandible. The mandible is resected from the antegonial notch to the first premolar, with preservation of the nerve.

Care is taken to identify and preserve the mandibular branch of the facial nerve. Soft tissue specimens are sent for frozen section to guarantee clear margins. After hemostasis and repositioning of the nerve, a mandibular reconstructive plate is applied, and the previously harvested cortical cancellous graft is used to reconstruct the defect to give continuity to the mandible. During the surgery, platelet-rich plasma is prepared and used with the donor bone. The PRP is used in the multiple-layer plastic closure.

The patient tolerated the procedure well and there were no immediate complications. The patient will followed in the hospital or office, as necessary, through the 90-day global period.
### Vignette #3 – Mandible Reconstruction

<table>
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<tr>
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<th>DIAGNOSIS CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excision of benign tumor or cyst of mandible; requiring extra-oral osteotomy and partial mandibulectomy (eg, locally aggressive or destructive lesion[s])</td>
<td>21047</td>
<td>76.31</td>
<td></td>
</tr>
<tr>
<td>Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; with bone graft (includes obtaining graft)</td>
<td>21194-52</td>
<td>76.43</td>
<td>213.1</td>
</tr>
<tr>
<td>Excision of bone for graft, iliac</td>
<td>Bundled</td>
<td>77.79</td>
<td></td>
</tr>
<tr>
<td>Injection(s), platelet rich plasma, any site, including image guidance, harvesting and preparation when performed</td>
<td>0232T</td>
<td>Bundled</td>
<td></td>
</tr>
</tbody>
</table>

**CASE NOTES:** Codes for obtaining autogenous bone through separate incisions should be reported separately unless the code descriptor references the harvest of the graft (eg, includes obtaining graft). However, ICD-9-CM procedure codes do not include harvest of graft.

For resection of locally aggressive benign lesions of the jaws, AMA guidance states, “If bone grafts, internal fixation, intermaxillary fixation, or soft tissue reconstruction are performed, these services may be reported separately.” (Source: CPT Assistant, November 2003). The Correct Coding Initiative (CCI) also does not bundle mandibular reconstruction into the resection codes.

Language in CPT codes 21193-21196 indicate that these procedures are typically performed on both sides of the mandible, (eg, the rami [plural] as opposed to the ramus [singular]), and therefore these codes are inherently bilateral. For a unilateral procedure, modifier -52, reduced services, may be reported to indicate that the service performed was partially reduced at the physician’s discretion.

Coverage of platelet rich plasma may vary between different payors.
Orthognathic Surgery

A Le Fort osteotomy is a technique used for mid-face reconstructions. Le Fort osteotomy is upper jaw surgery that involves sectioning and repositioning the maxilla to correct its abnormal position. There are three types of Le Fort osteotomy:

- **Le Fort I osteotomy** – advancement of a horizontal segmented fracture of the alveolar process of the maxilla, in which the teeth are usually contained in the detached portion of the bone, for treatment of upper jaw malocclusion and cleft palate, or treatment of maxillary fractures

- **Le Fort II osteotomy** – a unilateral or bilateral fracture of the maxilla, in which the body of the maxilla is separated from the facial skeleton and the separated portion is pyramidal in shape, for Treacher-Collins syndrome or anterior intrusion of the mid-face. The fracture may extend through the body of the maxilla down the midline of the hard palate, through the floor of the orbit, and into the nasal cavity

- **Le Fort III osteotomy** – a fracture in which the entire maxilla and one or more facial bones are completely separated from the craniofacial skeleton; is used to correct midfacial abnormalities.

**Vignette #4 -- Orthognathic Surgery**

**INDICATIONS:** A 22-year-old male who was born with a unilateral complete cleft lip and palate presents for treatment of remaining cleft-related deformities. He has previously undergone repair of the cleft lip and the cleft palate. The alveolar cleft was never corrected. He has developed midface retrusion and a class III malocclusion with a unilateral posterior cross-bite. Preoperative cephalometric analysis and prediction tracings are done. Dental casts are mounted on an articulator, model surgery is carried out, and an acrylic splint(s) for use intraoperatively is fabricated.

**DESCRIPTION OF PROCEDURE:** Arch bars are placed on the upper and lower teeth. The distance from the medial canthus to the inferior edge of the central incisor is measured with a caliper and recorded.

The upper labial and buccal sulci are injected with epinephrine, and a waiting period is done. The first side buccal sulcus incision is made, taking care to reserve a “cuff” of tissue attached to the gingiva. A subperiosteal dissection is performed to the level of the piriform aperture, the orbital rim, and the posterior zygomatic buttress. Care is taken to preserve the intraorbital nerve. The procedure is repeated on the second side. Extensive dissection of the soft tissue is performed on the posterior maxilla at the level of the pterygomaxillary fissure in order to free this area, and submucosal dissection is performed on the lateral nasal side wall (medial maxillary sinus wall).
Vignette #4 -- Orthognathic Surgery

An osteotomy is marked on both of the anterior maxillary walls and checked for symmetry. These anterior maxillary osteotomies are then performed with a reciprocating saw. An osteotomy is then made through each of the lateral nasal side walls (medial maxillary sinus wall) using the osteotome. On each side of the face, the curved osteotome is then introduced behind the maxillary tuberosity and guided into the pterygomaxillary fissure. Disjunction of the maxilla is then accomplished by several taps with a mallet on each side. The maxilla is “downfractured” using digital pressure. If the bone fragments do not move sufficiently to get the teeth into occlusion, bone reduction forceps are introduced into the nose and mouth, and the maxilla is disimpacted and mobilized until it can be completely mobilized. Great care is taken to maintain the integrity of the blood supply to the maxilla and the palate.

Vignette #4 -- Orthognathic Surgery

An osteotomy is then performed through the maxilla. Care is taken to ensure the integrity of the oral mucosa below the osteotomy site. The maxilla is separated into two pieces. The maxillary dentition is fitted to the acrylic splint, and the acrylic splint is then wired into place to the arch bars. The patient is then wired into maxillomandibular fixation. The distance from the medial canthus to the inferior edge of the central incisor is measured with a caliper, and the degree of vertical maxillary impaction or expansion is recorded. Metallic templates are configured to the osteotomy site medially along the piriform aperture. These templates are then used to shape the metallic fixation plates with appropriate vertical and horizontal movement of the maxilla. These medial plates are secured in place with a drill and screw.
Vignette #4 -- Orthognathic Surgery

All relationships of the maxilla, including the vertical change from the medial canthus, are then measured and confirmed. Metallic templates are configured to the osteotomy site laterally along the zygomatic buttress. These templates are then used to shape the metallic fixation plates with appropriate vertical and horizontal movement of the maxilla. These lateral zygomatic buttress plates are then secured in place with a drill and screws. All relationships of the maxilla, including the vertical change from the medial canthus, are then measured and confirmed.

Using a separate set of instruments to avoid oral contamination of the bone graft donor site and attendant risk of infection, a separate incision is then marked above the iliac crest. This is infiltrated with local anesthetic with epinephrine. After 5 to 7 minutes, a skin incision is made and carried down onto muscle fascia. Flaps are elevated to enhance exposure.

The soft tissue is dissected off the medial iliac cortical plate. Two vertical osteotomies are made through the iliac crest, and a segment of the cap of the iliac crest is removed. The iliac cancellous bone is harvested using a curette and placed in saline. After adequate cancellous bone is harvested, and additional cortical bone may be harvested from the cortical plate, depending on specific clinical needs. Hemostasis is obtained, and the iliac crest cap is then secured in place by placing drill holes through the intact iliac crest and the fragment and securing with suture material. The periosteum is closed over this area, followed by muscle closure and skin closure. The bone graft is then placed in the maxilla on both sides and packed in place. The gap between the maxillary segments is packed with bone graft.
Vignette #4 -- Orthognathic Surgery

At the conclusion of the fixation, the intermaxillary fixation is again assessed and released. The excursion of the mandible is assessed, and the position of the maxilla in relation to the mandible is assessed without intermaxillary fixation. If the occlusion is not accurate, the patient must be placed in intermaxillary fixation again, the plates and screws must be removed, and the plate fixation of the midface must be repeated until a satisfactory relationship is obtained. Depending on clinical considerations, the patient may remain in intermaxillary fixation, or it may be released. The incisions are irrigated. Intraoral wound closure is done with single-layer absorbable suture. This is done for both incisions. The corneal shields are removed.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (eg, ungrafted unilateral alveolar cleft)</td>
<td>21146</td>
<td>76.66</td>
<td>76.91</td>
</tr>
<tr>
<td>Excision of bone for graft, iliac</td>
<td>Bundled</td>
<td>77.79</td>
<td></td>
</tr>
<tr>
<td>Application of interdental fixation device for conditions other than fracture or dislocation</td>
<td>21110</td>
<td>93.55</td>
<td></td>
</tr>
</tbody>
</table>
Vignette #4 -- Orthognathic Surgery

**CASE NOTES:** Notes in ICD-9-CM instruct to report synchronous bone graft separately with orthognathic surgery procedure. Harvest of bone graft is also reported additionally. In CPT, however, both of these are integral components to the reconstruction procedure.

For physician coding of midface reconstructions, CPT codes differentiate not only by extent of bone repositioned (Le Fort Type I, II, or III), but also:

- For Le Fort Type I, the number of pieces of maxilla
- For Le Fort Type II, whether bone graft is required
- For Le Fort Type III, if with or without Le Fort Type I fracture and additional manipulation of maxilla
- Concurrent reconstruction of mandible, if performed, would be reported separately

Fracture Care

- Closed treatment:
  - Without manipulation
  - With manipulation
  - With stabilization
- Open treatment
  - Complicated / comminuted, multiple approaches
- Percutaneous skeletal fixation
- External fixation

Unlike fractures of most other parts of the skeleton, many of the CPT codes for facial fractures include external fixation, and some include obtaining bone graft, so these procedures would not be reported separately.

In ICD-9-CM procedure coding, however, harvest and application of bone grafts, external fixation devices, and/or bone void filler should all be coded additionally.
Vignette #5 – Orbital Floor Fracture

INDICATION: A 23-year-old male was involved in an altercation and was struck in the face. A computed tomography (CT) scan of the face reveals a comminuted fracture of the right orbital floor with extensive herniation of orbital fat into the maxilla.

DESCRIPTION OF PROCEDURE: The lower eyelids are injected with epinephrine, and a waiting period for effect is done. Corneal protectors are inserted on the eyes. Traction sutures are placed on the lower eyelids. The first side transconjunctival incision is made, and dissection is carried out to the inferior orbital rim and then into the floor of the orbit. The dissection is carried around to the medial and lateral orbital walls as far as possible to allow definition of the margins of the fracture, including the posterior “shelf” of sphenoid.

An appropriately sized semi-rigid implant is selected. The implant is “test fit” into the orbit, and appropriate shaping and reduction of the implant are performed until an acceptable shape is obtained to bridge the fracture and maintain reduction of the orbital contents within the orbit while not creating secondary ocular distortion, such as exophthalmos. After a satisfactory result is obtained, the implant is secured in place with metallic screw or wire. At the conclusion of the fixation, the corneal shields are removed. The transconjunctival incisions in each eye are closed with absorbable suture. Forcedduction tests are done on each eye to ensure free mobility. Medial and/or lateral canthal repairs are done if needed.
Vignette #5 – Orbital Floor Fracture

<table>
<thead>
<tr>
<th>PROCEDURES</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Other open reduction of facial fracture</td>
<td>21390</td>
<td>76.79</td>
<td>802.6 E960.0</td>
</tr>
<tr>
<td>(includes orbit rim or wall)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insertion of synthetic implant in facial bone</td>
<td></td>
<td>76.92</td>
<td></td>
</tr>
<tr>
<td>CT of orbit / face</td>
<td>70480 or 70486</td>
<td>87.03</td>
<td></td>
</tr>
</tbody>
</table>

**CASE NOTES:** There are five CPT code choices for open treatment of orbital floor fractures, distinguished by approach (transantral, periorbital, or combined), and use of bone graft or synthetic implant.

Maxillofacial Distraction Osteogenesis

Correcting congenital craniofacial defects, as well as some facial injuries resulting from trauma, may require making bones longer. Distraction osteogenesis is an effective way to grow new bone, but is complex to accomplish in the face. Bones must often be moved in three dimensions (as opposed to just one, as in a limb), and scarring must be kept to a minimum.

In distraction osteogenesis procedures involving the face, it is critical that bone movements be carefully planned before a device is implanted, which may involve 3-D computer modeling from CT scan data.

The most commonly used technique involves osteotomy(ies) and application of external fixation systems which are then slowly adjusted to expand the gap in the bone – these procedures are coded separately.
Maxillofacial Distraction Osteogenesis

Both CPT and ICD-9-CM coding distinguish between uniplane vs. multiplane external fixation systems.

- ICD-9-CM facial osteotomy procedures are in the code range 76.62-76.66.
- Additionally report 78.19, Application of external fixator device, other bones.
- Also report type of fixation device (84.71-84.73).

- CPT codes 20690 and 20692 should be reported in addition to the appropriate osteotomy or reconstruction procedure performed, when not already included in the basic procedure.
- 20690-20694 are unilateral codes; Modifier -50 may be reported for a bilateral procedure.
- CPT codes 20693 and 20694 are only reported when anesthesia is required. If no anesthesia is required, any adjustments, revisions or removal are considered inclusive in CPT codes 20690 and 20692 and are not separately reported.

THORACIC RECONSTRUCTION PROCEDURES
Thoracic Reconstruction Procedures

Thoracic reconstruction procedures include use of various fixation methods for:

- Treatment of rib or sternal fractures.
- Secondary closure of sternotomy, whether intentionally staged or to treat infection or instability.
- In conjunction with other surgical procedures, such as cardiac surgery or lung surgery with sternotomy / thoracotomy, for primary sternal closure (modifier -22 may be appropriate).

These procedures may be performed with other separately identifiable procedure(s). In this case, the reconstruction may be included in the primary procedure for coding purposes. The principal procedure would be that intended for definitive treatment of the principal diagnosis.

Vignette #6 – Sternal Fixation

**INDICATION:** Patient previously underwent thoracic aortic aneurysm repair with sternotomy, and now presents with unstable sternum.

**DESCRIPTION OF PROCEDURE:** The midline incision is reopened, and the operative site is dissected down to expose the sternum. In the lower part of the sternum, there was sternal bone separation and nonunion with visualization of multiple wires which were not broken. As sternal bone quality seemed poor, rigid fixation was deemed the best option. The bone was freshened on both sides of the split, and an appropriately sized rigid fixation plate was selected and attached to both sides of the manubrium with locking screws, creating a stable closure.
**Vignette #6 – Sternal Fixation**

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>CPT / HCPCS PROCEDURE CODES</th>
<th>ICD-9 PROCEDURE CODES</th>
<th>DIAGNOSIS CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure of median sternotomy separation with or without debridement (separate procedure)</td>
<td>21750</td>
<td>84.94</td>
<td>998.31</td>
</tr>
</tbody>
</table>

**CASE NOTES:** CPT code 21750 is a designated “separate procedure.” These codes represent services which are commonly performed as an integral component of other procedures (e.g., heart surgery) and would only be reported if it is carried out independently.

As this is a secondary / related procedure following earlier sternotomy, modifier -78 will apply for CPT code if it has been less than 90 days.

**Vignette #7 – Multiple Rib Fractures**

**INDICATION:** A 50-year-old male presents with blunt lateral injuries resulting in multiple level left rib fractures. He has been stabilized and treated for additional musculoskeletal and internal injuries prior to treatment.

**DESCRIPTION OF PROCEDURE:** After informed consent and adequate anesthesia, the left side of the chest is prepped and draped in usual sterile fashion. Incision and open exposure ribs is made and fracture sites examined. Patient undergoes implantation of an intramedullary nail in rib 3 via an anterior guiding hole and tap for the anterior fracture and a posterior guiding hole and tap for the posterior portion of the fractured rib. Internal plating for repair of ribs 4, 5, 6, and 7 was selected, cut to size, and screwed in place with the appropriate screws selected based on rib.
Vignette #7 – Multiple Rib Fractures

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>CPT / HCPCS PROCEDURE CODES</th>
<th>ICD-9 PROCEDURE CODES</th>
<th>DIAGNOSIS CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open treatment of rib fracture requiring internal fixation, unilateral; 5-6 ribs</td>
<td>0247T</td>
<td>79.39</td>
<td>807.05</td>
</tr>
</tbody>
</table>

**CASE NOTES:** Diagnosis code 807.0 is closed fracture of rib; any fracture not stated as open is assumed to be closed. The 5th digit 5 indicates number of ribs – although 5 are treated, confirm from patient history that this accurately captures total number of fractured ribs.

CPT code 0247T is a Category III code, and so payor coverage may vary. Some of the Medicare MACs have agreed to cover these T-codes, and commercial plans frequently adopt Medicare guidelines. It is the code which accurately describes the procedure performed – no Category I CPT code currently exists for open treatment with internal fixation of rib fractures.

New Technologies

Coding for new technologies is often difficult, as precise codes may or may not exist for new procedures. For CPT, new services may need to be reported with an ‘unlisted’ code, or may be assigned Category III code(s), which are:

- Temporary codes for emerging technology, services, and procedures.
- Released semi-annually.
- Generally carrier priced.
- Often limited in coverage.
- Used to collect data, so should always be used in preference to an “unlisted” code if one describes a service provided.

ICD-9-CM also has options for unlisted procedures, but does not have temporary codes similar to CPT’s Category III. ICD-9 codes may be developed on a different schedule, before or after a CPT code for a given procedure.
Diagnostic Coding Issues

- Annual code changes are effective Oct. 1st.
- ICD-9-CM is published as a three-volume set
  - Volume 1 -- Tabular List of Diseases
  - Volume 2 -- Alphabetic Index
  - Volume 3 -- Procedures
- There are sixteen basic guidelines for reporting diagnoses for inpatient services.
- A copy of the complete guidelines are available from the Center for Healthcare Statistics:
- ICD-9-CM Diagnosis Changes for FY 2014 -- **NONE**
ICD-10-CM

On January 16, 2009, the Department of Health and Human Services (HHS) published a Final Rule for the adoption of ICD-10-CM and ICD-10-PCS, with a compliance date of October 1, 2013 (now 2014).

Under the electronic health transaction standards final rule, also issued on January 16, 2009, covered entities must comply with Version 5010 (for some health care transactions) and Version D.0 (pharmacy transactions) on January 1, 2012 (extended to July 1).


However, the codes in ICD-10 are not currently valid for any purpose or use in the United States.

ICD-9-CM vs. ICD-10-CM

<table>
<thead>
<tr>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
<th>Implementation Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 digit codes</td>
<td>3-6 digit codes (possibly 7)</td>
<td>All computer fields must be able to accommodate additional characters</td>
</tr>
<tr>
<td>0 as spacer</td>
<td>X as spacer</td>
<td>Ensure fields can accept alphabetic characters in any digit position. Ensure distinction between numbers and letters (although O and I not used, to minimize confusion).</td>
</tr>
<tr>
<td>Numeric values except V and E codes</td>
<td>All alphanumeric, including 1st and sometimes subsequent digits</td>
<td></td>
</tr>
<tr>
<td>1-2 digits after decimal</td>
<td>1-4 digits after decimal</td>
<td>Ensure system can accept up to 4 digits after decimal.</td>
</tr>
<tr>
<td>Partial descriptors for 4th &amp; 5th digits</td>
<td>Full descriptors for every code</td>
<td>Ensure format reflects full descriptors, not “cumulative” data.</td>
</tr>
<tr>
<td>Hierarchical structure</td>
<td>Hierarchical structure</td>
<td>Programming expanded to recognize at least one more level to hierarchy</td>
</tr>
<tr>
<td>Approximately 17,000 diagnosis codes and 5,000 procedure codes</td>
<td>Potentially 70,000 diagnosis codes and almost 120,000 procedure codes</td>
<td>Additional training and education, documentation improvements, revised reference guides, computerized coding support</td>
</tr>
</tbody>
</table>
ICD-9-CM vs. ICD-10-CM

- Some codes do have direct translations from ICD-9-CM to ICD-10-CM.
- Some ICD-10 diagnosis codes combine multiple presentations or facets of a condition into a single code – such as incorporating underlying cause, concurrent condition, or complication as a subclassification – which in ICD-9-CM requires 2 or more codes.
- For some categories, terms may be defined in different ways, or whole chapters are organized along a different axis of classification, such that the mapping is only a series of approximations or possible compromises.
- There are cases where ICD-9 contains more detail than ICD-10, where a clinical concept or axis of classification is no longer deemed essential information.
- ICD-9 may also contain more detail than ICD-10 when ICD-9-CM captured information on issues relating to procedures, which ICD-10 does not consider an appropriate element of the diagnosis code.
- And many of the ICD-10 categories offer a much greater degree of specificity / granularity than is possible with ICD-9, such as more precise anatomic site, laterality, and / or episode of care.

ICD-10-PCS

ICD-10-PCS is designed to permit assignment of a unique code to each substantially different procedure, with the flexible open structure easily allowing the incorporation of future new procedures. There is no numeric listing of codes; rather, there are 16 sections with sub-tables to determine code selection.

0 Medical and Surgical
1 Obstetrics
2 Placement
3 Administration
4 Measurement and Monitoring
5 Extracorporeal Assistance and Performance
6 Extracorporeal Therapies
7 Osteopathic
8 Other Procedures
9 Chiropractic
B Imaging
C Nuclear Medicine
D Radiation Oncology
F Physical Rehabilitation and Diagnostic Audiology
G Mental Health
H Substance Abuse Treatment
ICD-10-PCS

The first character identifies the type of service/procedure provided (the section), and each subsequent place in the code also has a specific function, the meaning of which may differ from one section to another. For example:

Medical and Surgical Codes (Section 0):

<table>
<thead>
<tr>
<th>Section</th>
<th>Body System</th>
<th>Root Operation</th>
<th>Body Part</th>
<th>Approach</th>
<th>Device</th>
<th>Qualifier</th>
</tr>
</thead>
</table>

Imaging Codes (Section B):

<table>
<thead>
<tr>
<th>Section</th>
<th>Body System</th>
<th>Type</th>
<th>Body Part</th>
<th>Contrast</th>
<th>Qualifier</th>
<th>Qualifier</th>
</tr>
</thead>
</table>

Extracorporeal Assistance and Performance Codes (Section 5):

<table>
<thead>
<tr>
<th>Section</th>
<th>Physiological Systems</th>
<th>Root Operation</th>
<th>Body System</th>
<th>Duration</th>
<th>Function</th>
<th>Qualifier</th>
</tr>
</thead>
</table>

• All terminology is standardized, and defined within the reference tables
• Diagnosis information is not part of the procedure code descriptor
• There are no eponyms (procedures identified by a person’s name, rather than clinical description)
• If multiple procedures as defined by distinct objectives are performed, then multiple codes should be assigned
What Can I Do?

- Step 1 – Examine Effect on Facility Departments
- Step 2 – Confirm Compliance with Contractors
- Step 3 – Train for ICD-10-CM
- Step 4 – Perform Internal Tests
- Step 5 – Implement ICD-10-CM

Coding and Documentation Improvement

- With complete information in the record, coders can effectively analyze, code, and report necessary information for claims and for quality measures
  - Physician reviews / signs all facility documentation
  - Make sure key elements are captured – query when needed
  - Ensure specificity of diagnosis documentation, including documentation for POA indicators
- Without such documentation, the application of all coding guidelines is a difficult, if not impossible, task – and accuracy of reimbursement is affected
Coding and Documentation Improvement

• Health care is increasingly data driven
• Cross functional skill sets support evolving activities
• Enhanced roles of HIM and Coding Department staff in ensuring quality of information
• Education and open communication are key
• Work Smart

Questions?
Thank you all for participating!

Presented by:
Sheila Sylvan
IMPACT!

Fall 2013

Hosted by:
DePuy Synthes

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