TRAUMA TIDBITS 411

February 7, 2014
A. AIS/CODING

Q1:
Under the AIS coding instructions, bilateral maxilla fractures are coded as a single injury.

Does that mean “I” don’t have to code the superior maxilla and zygomatic arch and maxillary sinus fractures as individual ones?

What are the pros/cons to coding as one or listing all the ICD9 codes as separate ones?

Most report all injuries
A. AIS/CODING

Q2: When to use ICD9 808.43 vs coding all injuries separately?

Breaking it all down:
808.43 = Multiple pelvic fx with disruption of pelvic circle

Disruption of pelvic circle/ring/girdle = would be any fracture pattern that causes partial or complete instability in the pelvis. When the pelvic ring is disrupted, you normally have multiple fractures of the ring which makes it unstable
A. AIS/CODING

Q2. The *pelvic ring*, also known as the pelvic girdle, is a ring of bones shaped like a basin that connects the torso to the legs. It supports the weight of the upper body and transfers some of the weight to the lower limbs when standing. It provides protection to vulnerable organs and supports posture.

Per research from Ellen
A. AIS/CODING

Q2 Radiology findings:
Comminuted fracture of the right ilium with part of the fracture extending into the right SI joint. Vertical fracture through the right ilium with up to 2.7 cm of fracture fragment separation
Undisplaced fractures of the left superior and inferior ischial rami. Displaced comminuted fractures of the right superior and inferior ischial rami.
A. AIS/CODING

A tiny triangle shaped fragment overlying the inferior ischial ramus.

There are also appears to be a number of fracture lines through the body of the sacrum with fracture fragments separated by up to 1.2 cm.
A. AIS/CODING

POSTOP DX: Multiple pelvic fractures with anterior-posterior displacement and sacroiliac joint disruption, right hemipelvis.

Most report injuries out separately, verbiage used such as shearing, lateral compression or SI diastasis indicates unstable
A. AIS/CODING

2012 ICD-9 book to present, multiple pelvic fractures have been expanded to four codes (new codes are in red text):

- 808.43 - Multiple closed pelvic fractures with disruption of pelvic circle, closed
- 808.44 - Multiple closed pelvic fractures without disruption of pelvic circle, closed
- 808.53 - Multiple closed pelvic fractures with disruption of pelvic circle, open
- 808.54 - Multiple closed pelvic fractures without disruption of pelvic circle, open

<table>
<thead>
<tr>
<th>Stable</th>
<th>Partially Unstable</th>
<th>Completely Unstable</th>
</tr>
</thead>
<tbody>
<tr>
<td>808.44</td>
<td>808.43</td>
<td>808.43</td>
</tr>
<tr>
<td>808.54</td>
<td>808.53</td>
<td>808.53</td>
</tr>
</tbody>
</table>
A. AIS/CODING

Q3. Injection type injuries from a power washer/grease injector? How would you define the injury and what type of ICD9 is used?

CDC states
“An injury to the body by pressure greater than 100 psi (pounds per square inch) is considered an injection injury by the CDC. An injection injury can cause nerve damage as well as skin wounds.”

Also need to review case for type of solution/gas used in the injector.

A3.
A. AIS/CODING

Q2: Injection Injuries article

http://tra.sagepub.com/content/7/2/95
The online version of this article can be found at:
DOI: 10.1191/1460408605ta338oa
Trauma 2005 7: 95
GD Smith

xa.yimg.com/.../name/High-Pressure+Injection+Injuries%5B1%5D.pdf
B. E-CODING
Q1: What do I do if the case has 2 or more e-codes that fit the scenarios?

A1: Use the rules of E-coding Hierarchy

Multiple Cause Coding Hierarchy: If two or more events cause separate injuries, an external cause code should be assigned for each cause. The first-listed external cause code will be selected in the following order:

1. External cause codes for child and adult abuse take priority over all other external cause codes.
2. External cause codes for terrorism events take priority over all other external cause codes except child and adult abuse.
3. External cause codes for cataclysmic events take priority over all other external cause codes except child and adult abuse, and terrorism.
B. E-CODING

4. External cause codes for transport accidents take priority over all other external cause codes except cataclysmic events, and child and adult abuse, and terrorism.

5. The first listed external cause code should correspond to the cause of the most serious diagnosis due to an assault, accident or self-harm, following the order of hierarchy listed above.

Reference: NTDB data dictionary, ICD-9 coding book
B. E-CODING

Addition tidbits on E-coding

1. External cause codes are used to auto generate 2 calculated fields: Trauma type and intentionality of injury (based on CDC matrix)
2. Use as many e-codes needed to describe the event
3. E-codes may be assigned while the acute fracture codes are still applicable (ex: if someone has an old fracture, then an e-code that is old/healing/non-union, etc. would not have an e-code).
B. E-CODING

Exercises:
Which event is coded as primary?

1. 35 y.o. female, Self-inflicted GSW to neck, then lost control of vehicle and struck a wall at approximately 80 MPH? **MVA than GSW**

2. 9 month old with shaken baby syndrome as well as injuries sustained from falling down the stairs? **Shaken baby than fall**

3. 15 y.o. male struck by a table when a tornado hit the house? **Tornado than struck**
B. E-CODING

Q2: E-code for - a patient who was coming down a ramp on a power w/c when the ramp fell causing the patient to bounce in chair? Dx: hip fx

Best choice

1. 927.0 Overexertion form sudden strenuous movement
2. 917.9 Other striking against with or with fall
3. Other idea? 884.3 wheelchair fall
   884.9 one level to another
   re-visit questions after ICD 10
C. NTDB: RISK FACTORS (CO-MORBID)

Risk Factor collection of Cirrhosis vs Ascites:

Cirrhosis is inflammation of the liver and can be present due to many reasons other than alcoholism. The purpose of this field value and definition is to identify patients who have inflammation of the liver. There are reasons why the definition is written as it is “…ascites with notation of liver disease…” The reason the wording is written this way is to distinguish between ascites occurring from liver disease, from ascites occurring from congestive heart failure. So yes, if there is documentation of ascites in the patient’s chart, we want there to also be a notation of liver disease to meet our NTDS definition of Cirrhosis. * reminder ascites not always considered liver

Per T Morgan
National TQIP Educator
C. NTDB: FIELDS

NTDB new fields for trauma centers (2014 new fields will not be added to 2014 state dictionary. Physical abuse will be collected on ALL patients regardless if any abuse or not. Caregiver at discharge is to be answered for emancipated minor only.

Hospital D/C disposition #9 has been retired which is discharged/ transferred to another type of rehab or long term care facility. Also noted disposition to any other medical facility should be coded as 14 and to check your mapping.

Trauma center criteria get this information of EMS run sheet. Same for vehicular, pedestrian, other risk injury.
F. OTHER

When using diagnosis of Hypothermia and Heat related issues
Consider typing in on the diagnosis line the approximate outside temperature that day

For example:
Hypothermia- low teens- 2 feet snow

Was asked during trauma review what the outside temperature was-
F. OTHER

Definition of hypodensity:

- A “hypodensity” on a CT image means some portion of anatomy appears less dense than the surrounding tissue.

- hypodensity (plural hypodensities) (medicine) An area of an X-ray image that is less dense than normal, or than the surrounding areas.

http://en.wiktionary.org/wiki/hypodensity
F.

Hypodensity
Per recent AIS training, code as an infarction. Beware of location of infarction, for example is the infarction in the brain stem (AIS 5), cerebellum (3), cerebrum (3)

Remember these are due to traumatic vascular occlusions not your stroke/CVA
Remember you may have a patient with a dx of stroke but also sustain traumatic injuries when they fell or crashed the car
May see hypodenities used on liver, spleen and kidney CT due to medical reasons
F. OTHER: TRAUMA TYPE

Mechanism *(e-code)* is how the injury happened. Blunt/penetrating/burn - is the *Trauma Type* of trauma that was the result of the mechanism. The *ICD9* is the descriptions of the injury - sprain, contusion, fracture, laceration, etc.

*Penetrating trauma* is like a GSW, stab, deep dog bite, or impaled objects. Impaling has to go into the tissue - deep, not just a surface (even a few layers down) in the skin. It would include muscle or even to the bone.
F. OTHER: TRAUMA TYPE

- Ares to help with definitions clarifications
  - Trauma Type_Colorado Dept Pub Health.pdf under trauma tool kit
F. Other: Trauma Type

APPENDIX VIII.B: Assigning Trauma Type (NTDS Method)

For data submitted to the National Trauma Data Bank using the National Trauma Data Standards, Trauma Type is auto-calculated using the assigned E-codes (External Cause of Injury Codes). The E-codes are categorized according to the CDC injury matrix (see the Trauma Type assignment in the table below). For more details regarding this methodology, see Appendix I of the National Trauma Data Standards (http://www.ntdsdictionary.org/dataElements/documents/NationalTraumaDataStandardDictionary2010.pdf).

Injury Intentionality and Trauma Type
CDC Matrix and Trauma Type as assigned in the NTDS

<table>
<thead>
<tr>
<th>Mechanism/Cause</th>
<th>Unintentional</th>
<th>Self-inflicted</th>
<th>Assault</th>
<th>Undetermined</th>
<th>Other</th>
<th>NTDS Trauma Type Code</th>
<th>Trauma Type Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut/pierce</td>
<td>E920.0-9</td>
<td>E956</td>
<td>E966</td>
<td>E886</td>
<td>E974</td>
<td>2</td>
<td>Penetrating</td>
</tr>
<tr>
<td>Drowning/submersion</td>
<td>E830.0-9, E832.0-9, E910.0-9</td>
<td>E954</td>
<td>E964</td>
<td>E984</td>
<td></td>
<td>4</td>
<td>Other/ unspecified</td>
</tr>
<tr>
<td>Fall</td>
<td>E880.0-E886.9, E888</td>
<td>E957.0-9</td>
<td>E968.1</td>
<td>E987.0-9</td>
<td></td>
<td>1</td>
<td>Blunt</td>
</tr>
<tr>
<td>Fire/burn</td>
<td>E890.0-E899, E924.0-9</td>
<td>E958.1, 2, 7</td>
<td>E961, E968.0, 3, E979.3</td>
<td>E988.1, 2, 7</td>
<td></td>
<td>3</td>
<td>Burn</td>
</tr>
<tr>
<td>Fire/flame</td>
<td>E890.0-E899</td>
<td>E958.1</td>
<td>E968.0</td>
<td>E979.3</td>
<td>E988.1</td>
<td>3</td>
<td>Burn</td>
</tr>
</tbody>
</table>
### F. Other: Trauma Type

<table>
<thead>
<tr>
<th>Mechanism Description</th>
<th>Trauma Type Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut/pierce</td>
<td>Penetrating</td>
</tr>
<tr>
<td>Drowning/submersion</td>
<td>Other/unspecified</td>
</tr>
<tr>
<td>Fall</td>
<td>Blunt</td>
</tr>
<tr>
<td>Fire/flame</td>
<td>Burn</td>
</tr>
<tr>
<td>Hot object/substance</td>
<td>Burn</td>
</tr>
<tr>
<td>Firearm</td>
<td>Penetrating</td>
</tr>
</tbody>
</table>

Examples from NTDB data dictionary.

Logically be sure the trauma type fits the E-code for example
Person is pistol whipped by a firearm  would be blunt
F. Other: Trauma Type

Mark each scenarios with blunt/penetrating and Cause_code

1. Pt walking and steps on a large screw which remains embedded in the patient’s heel and causes a small chip fx of the calcaneus. 920/cut penetrating

2. Pt falls landing on a glass coffee table. Glass shatters causing multiple superficial lacerations to skin. Majority blunt fall

3. Pt falls landing on a glass coffee table. Glass shatters causing a significant sized glass FB. Majority blunt fall
F. OTHER: TRAUMA TYPE

4. Pt walks thru a glass sliding door. Glass shatters causing multiple superficial lacerations to skin.

5. Pt walks thru a glass sliding door. Glass shatters causing a significant sized glass FB.

6. Pt in MVA. Pt is ejected through open window. Only injury is open wound on pts back from landing onto unk sharp object outside of car.
F. OTHER: ORANGE BOOK (TRAUMA CENTERS)

- Winter 2014
- PI section changed the most
- Read the Orange book- keep asking what new data points will need to be collected- be proactive
- Keep track of changes needed- use trauma tidbits to collect all the ideas/suggestions to deal with the changes: put data in field name, put changes in F1, use excel spread sheet
F. **OTHER**: **TRACKING ISSUES**

What are the best methods to track system issues, and changes in data collection software systems. Examples: A new problem exists with doing FAST exams on patients (global issue).

How to track when issue started, when started to collect the data and which cases are lacking the documentation of FAST exam: *critiques, finding code, F1 help for field*
G. Gray Areas of Trauma

Q1: A patient has severe coughing fits and fractures three ribs as a result. Does the patient meet inclusion criteria for the state and NTDB? Don’t include in registry

a. ICD9 code = 807.03
b. Ecode = E927.8
c. Was admitted to the hospital

Q2: A patient fractures his penis during sex. Does the patient meet inclusion criteria for the state and NTDB?

a. ICD9 code = 959.13
b. Ecode = E927.0? or E927.2? or E927.8?
c. Was admitted to the hospital
G. Gray Areas of Trauma

Discussion Points:

- NTDB inclusion criteria: Yes for ICD-9 code
- State: meets State criteria
- Will it be used for injury prevention?
- How will it affect your non-surgical admission rate?
- How will it affect your work load?
- What are your TMD or TMP thoughts on these types of cases?
- What was the patient admitted for?
G. Gray Areas of Trauma

Returning trauma patients
Ex: Patient that was involved in a MVA and was admitted 12/23 with a diagnoses of Back strain and chest contusion. Patient was discharged 12/24. Came back in and readmitted 12/26 after repeat xray showed rib fx’s x 2 and small pneumothorax.

Recommendations:
1) Data entry 12/23 visit and add in a note about the PI issue best choice
2) Data entry 12/23 and 12/26 but add in a .1 after the number as a flag for re-admission
3) Other ideas?
**GRAY AREAS OF TRAUMA**

Returning patients:
Reminder- Patient inclusion criteria
From the OTR acute care dictionary

the patient on *initial* presentation for treatment of an injury, be admitted ....

To help separate these types of patients out if included in registry use a late effect injury E-code
G. URGENT CARE OR FREE STANDING ED

What is the difference between the urgent care and free standing ED?

- Open 24/7
- Not physically attached to or on the campus of an acute care hospital
- Staffed by emergency medicine physicians (does not have to be 100%)
- Designed to accept ambulance patients.

Must meet all four to be considered a free standing ED

Web site for free standing

http://www.ems.ohio.gov/ems_datacenter.stm
http://www.publicsafety.ohio.gov/links/EMS_DC_FacilityCodes.xl sx
Remember to send Deb all your questions
  • deb.myers@khnetwork.org