

# Entering Penetrating Injuries Into Tri-Code

Nathan McWilliams, MPA, RHIA  
Director of Technology/Trauma Registry

# Objectives


- Understand the intellectual conflicts inherent in capturing trauma diagnoses in Tri-Code.
- Understand the AIS guidelines regarding penetrating injuries.
- Appreciate the various methods of entering penetrating injuries in Tri-Code.
- Appreciate the limitations of Tri-Code and the importance of the registrar in coding.

# Conflicts

- ICD-9 codes versus AIS codes
- The desire to capture every injury in detail versus keeping it simple
- The fight for the highest ISS possible versus conservative coding
- Hospital needs versus NTDB or PTSF needs

Coding AIS 2005 - Final Diagnoses

Edit Navigate

 **DI Coder**

AIS 2005 - Code by Narrative and Rubrik    AIS 2005 - Code by ICD to AIS Lookup and AIS Coder

ISS        

GSW to R Chest large R hemothorax  
laceration r upper lobe lung  
transected hilum of R lung with blood loss of 4,000 cc

ICD	ICD Description	Severity	ISS BR	Predot	AIS Description
860.3	Traumatic hemothorax, open	3	3	442200	hemothorax NFS
861.32	Lung laceration open	5	3	441452	lung lac - bilateral - major; 1+ lobes; increased A-a gradient

**FINAL ANATOMICAL DIAGNOSIS:**

GSW TO R CHEST LARGE R HEMOTHORAX

LACERATION R UPPER LOBE LUNG

TRANSECTED HILUM OF R LUNG WITH BLOOD LOSS OF 4,000 CC

# ALS Coding Rules and Guidelines

- Penetrating Injuries = gunshot wounds, stab wounds, impalement or spearing-type trauma

# AIS Coding Rules and Guidelines

- In gunshot and stab wounds, the underlying structures or organs that are injured are assigned an AIS code; the overlying skin injuries are not coded separately.

Ex. GSW abdomen  
spleen lac

By guideline:  
open spleen lac

# AIS Coding Rules and Guidelines

- Gunshot wounds resulting in bony fractures are coded as open fractures.
- Gunshot wounds with both an entry and exit wound are coded as a single injury.
  - this means you don't need to mention the exit wound
- Multiple organ injuries from one GSW treat as separate codes.

# AIS Coding Rules and Guidelines

- One area of confusion due to wording in AIS manual.

One bullet labeled *Penetrating Injuries*

One bullet labeled *Soft tissue skin injuries*

*(blunt or penetrating)* The “blunt or penetrating” used here should really be “open or closed”. (p.18 of AIS manual)



# AIS Coding Rules and Guidelines by Region

- Each of the following regions (Face, Neck, Thorax, and Abdomen) all say the same thing about the penetrating injury code set:  
*Use this category if penetrating injury does not involve internal structures. If underlying anatomical structures are involved, code documented diagnoses only; do not use these generic descriptors.*

# AIS Coding Rules and Guidelines by Region

- The Head region is a little bit different

*Code a penetrating injury to a specific anatomical site (e.g. brain stem, cerebellum or cerebrum) if site is known. If site is unknown or if more than one site is injured, code to one of the following descriptors. If the skull is not penetrated, code as scalp laceration.*

# Tri-Code Penetrating Guidelines

- GSW, Stabbings and impalements recognized as penetrating.
- Penetrating assumption feature:
  - Injuries in the same body region listed AFTER the penetrating injury are assumed to be open
  - For head injuries, if any single injury is stated as penetrating, all other head injuries are assumed open

# Tri-Code Penetrating Guidelines

- Face and Neck region
  - if a penetrating code is entered with an underlying injury code, the penetrating code will be cancelled if the underlying anatomical injury is more severe.
  - If the penetrating code is more severe than the underlying anatomical injuries, the underlying anatomical injuries codes will be cancelled out.

# Tri-Code Penetrating Guidelines

- Thorax, abdomen and extremities region
  - Both the penetrating code and the underlying anatomical injuries are coded without any cancellations. However, a warning message is also displayed that both a penetrating and an underlying injury are stated for the same body region.

# Do Some Examples

- GSW Abdomen and Spleen Lac
- GSW and lung contusion registrar question
- Open-Closed assumptions

# Take Homes from Lecture

- GSW, Stab etc. are diagnoses in AIS and Tri-Code. You should think of them as such. Do not think of them as mechanisms of injury you are putting into Tri-Code.
- Tri-Code is not a magic encoding genie. It requires the user to understand the AIS guidelines when coding and entering a diagnosis. It relies on the user to enter the codes and put them in the right order.