AIS & ISS
Why do I need to know this?

Pam Fiechtner MSN RN CEN
Sanford Aberdeen
Injury Prevention

• You’ve come a long way baby!
Objectives
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• Define AIS
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- Define AIS
- Discuss the development of AIS
Objectives

- Define AIS
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- Define ISS
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- Define AIS
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- Define ISS
- Demonstrate how AIS is used to calculate ISS
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• Define AIS
• Discuss the development of AIS
• Define ISS
• Demonstrate how AIS is used to calculate ISS
• Discuss why it is important to be accurate
AIS & ISS

Why is it important to be accurate?
AIS & ISS

Why is it important to be accurate?

What is the purpose of your trauma registry?
AIS & ISS

Why is it important to be accurate?

What is the purpose of your trauma registry?

To improve patient care!
What is AIS
AIS & ISS

What is AIS

Abbreviated Injury Scale
AIS & ISS

What is AIS

**Abbreviated Injury Scale**

- Anatomical based coding system
- Classify & describe severity
AIS & ISS

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**Abbreviated Injury Scale**

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- Classify & describe severity
AIS & ISS

AIS is in a 7-digit format

_ _ _ _ _ _ . _

The first 6 digits are called “predot”
AIS & ISS

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_ _ _ _ _ _ . _

The first 6 digits are called “predot”
AIS & ISS

AIS is in a 7-digit format

_ _ _ _ _ _ . _

The single digit after the dot is called the “post dot”.
AIS & ISS

AIS is in a 7-digit format

_ _ _ _ _ _ _

The single digit after the dot is called the “post dot”.
AIS & ISS

AIS is in a 7-digit format

_ _ _ _ _ _ . _

Value is assigned according to the severity of the injury

.1 = minor
.2 = moderate
.3 = serious
.4 = severe
.5 = critical
.6 = maximum – unsurvivable injury
AIS & ISS

AIS is in a 7-digit format

Value is assigned according to the severity of the injury
.1 = minor
.2 = moderate
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.5 = critical
.6 = maximum – unsurvivable injury

.9 = indicates injury present but no severity value
AIS & ISS

AIS is in a 7-digit format

Example from the State Registry:
AIS & ISS

AIS is in a 7-digit format

Example from the State Registry:

Concussion with LOC < 30 min
AIS & ISS

AIS is in a 7-digit format

1 6 1 0 0 4 . 2

Example from the State Registry:

Concussion with LOC < 30 min
AIS & ISS

Where is AIS in the registry? 1 6 1 0 0 4 . 2

Concussion with LOC < 30 min
AIS & ISS

Where is AIS in the registry? 161004.2

Concussion with LOC < 30 min
Where is AIS in the registry? **161004.2**

Concussion with LOC < 30 min
### AIS & ISS

Where is AIS in the registry? **161004.2**

Concussion with LOC < 30 min

<table>
<thead>
<tr>
<th>Anatomical Diagnoses</th>
<th>Predot</th>
<th>AIS Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>S06.0X1A, Concussion with loss of consciousness of 30 minutes or less</td>
<td>161004, cerebral concussion w brief LOC LEQ 30 mins</td>
<td>2</td>
</tr>
</tbody>
</table>

1 = minor
2 = moderate
3 = serious
4 = severe
5 = critical
6 = maximum
AIS & ISS

.9 = indicates injury present but no severity value
Cannot be used to calculate an ISS

Diagnosis:
1. Fall, initial encounter
2. Closed head injury, initial encounter
S09.90XA Unspecified injury of head, initial encounter


AIS & ISS

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<tr>
<td>ICD 10 Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S09.90XA, Unspecified injury of head, initial encounter</td>
<td>100099, injuries to the head NFS</td>
<td>9</td>
</tr>
</tbody>
</table>
AIS & ISS

What is ISS?

Injury Severity Score

Provides an overall score for patients with multiple injuries
AIS & ISS

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Injury Severity Score

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• Each injury is assigned an AIS score
AIS & ISS

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• Injuries are sorted by body regions (6)
AIS & ISS

What is ISS?

Injury Severity Score

Provides an overall score for patients with multiple injuries

• Each injury is assigned an AIS score
• Injuries are sorted by body regions (6)

1. Head & Neck
2. Face
3. Chest
4. Abdomen
5. Extremity
6. External
AIS & ISS

Injury Narrative:
- concussion loc <30 min
- fracture of 3 ribs
- sternum fracture
- left hip dislocation

ISS: 17
TRISS:
Tri-Code ICD 10
<table>
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<th>Predot</th>
<th>AIS Severity</th>
<th>ISS Body Region</th>
</tr>
</thead>
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<tr>
<td>S06.0X1A, Concussion with loss of consciousness of 30 minutes or less, initial encounter</td>
<td>161004, cerebral concussion w</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>S22.49XA, Multiple fractures of ribs, NOS side, initial encounter for closed fracture</td>
<td>450203, fx GEQ 3 ribs w/o flail</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>S22.20XA, Unspecified fracture of sternum, initial encounter for closed fracture</td>
<td>450804, sternum fx</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>S73.005A, Unspecified dislocation of left hip, initial encounter</td>
<td>873030, hip joint disloc</td>
<td>2</td>
<td>5</td>
</tr>
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</table>
AIS & ISS

To calculate the ISS:

The 3 most severely injured body regions have their top scores squared and added together.
AIS & ISS

To calculate the ISS:

The 3 most severely injured body regions have their top scores squared and added together.

Body region 1: 2 squared = 4
Body region 3: 3 squared = 9
Body region 5: 2 squared = 4

ISS Score = 17
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What about that AIS of 6?

If you have an AIS of 6 on any 1 injury your ISS is automatically 75.

Code the other injuries, but it will not be added to the ISS.
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Why is it important to be accurate?
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Any error in AIS scoring increases the ISS error.
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Lack of detail in AIS
  • Low AIS score
  • Low ISS score
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- Low AIS score
- Low ISS score

Look for detail in your charts!
- Read imaging reports
- Read the findings in operative reports
- Try to avoid having to use an “NFS” or “.9” descriptor in AIS
Thank you for all you do!

Resources/References:
http://www.trauma.org/archive/scores/iss.html