Orthopedic Scope of Care

Statewide Trauma Advisory Committee
April 9, 2014
Where are we now?
How did we get here?

• Legislation in 1995
• Rule development 1997-1999
  ▫ Chapter One – Trauma Registry
  ▫ Chapter Two – Mandatory Transfer/Consult
  ▫ Chapter Three – Trauma Designation Rules
Where are we now?

The trauma system was developed to include Level I-V in addition to Regional Pediatric Trauma Centers.
Where are we now?

• No major overhaul of Level III-V rules in 10+ years
  ▫ Have things changed over 10 years?
Where are we now?

- Colorado Rules Regarding Orthopedic Care
  - Level I/II
  - Level III
  - Level IV
What do we have to measure compliance?

Onsite Triennial Reviews for Trauma Centers

Data Sources

• Colorado Trauma Registry:
  ▫ Only level I, II and III trauma centers
  ▫ Trauma deaths, transfers in and out, admitted patients, observed >12 hours

• Hospital discharge data:
  ▫ Colorado Hospital Association
  ▫ All acute care and critical access member hospitals
  ▫ Patients admitted (not death or transfer from ED)
  ▫ Administrative data (no ISS)
Where are we now?

Data Presentation
Where are we now?

Data Sources

• What do we have access to?
• What is important?
• What is actually useful and helps inform decision making?
Where are we going?

Goal: Sensible regulation
Where are we going?

Options

• Waiver process
• Additional rules
  ▫ Mandatory consult and transfer rules
  ▫ Mandatory requirements for orthopedic care at a Level III/IV
• A la carte
• Watchful maintenance
• Other options?
Where are we going?

• Here’s what we want to know...
• Here’s what we do know...

• How do we fill the gap?
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<table>
<thead>
<tr>
<th>Injuries/conditions</th>
<th>Level I/II</th>
<th>Level III</th>
<th>Level IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic fractures with unrelenting hemorrhage</td>
<td>Level II requires consult with level I</td>
<td>Mandatory consultation is required with a Level I trauma surgeon for consideration of transfer.</td>
<td>Mandatory transfer (within 6 hours after recognition of condition) is required.</td>
</tr>
<tr>
<td>Bilateral femur fx or post. pelvic fx complicated by chest and/or abdominal injuries as defined</td>
<td>No consult required</td>
<td>Mandatory consultation (within 12 hours after recognition of condition) is required with a Level I trauma surgeon for consideration of transfer.</td>
<td>Mandatory transfer (within 6 hours after recognition of condition) is required.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physician credentials/other requirements</th>
<th>Level I/II</th>
<th>Level III</th>
<th>Level IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board certified or board qualified orthopedic surgeon working toward certification</td>
<td>Board certified or board qualified orthopedic surgeon working toward certification</td>
<td>No mention of orthopedic surgery</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Level I/II</th>
<th>Level III</th>
<th>Level IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary resources including instruments, equipment and personnel for current trauma care</td>
<td>(no specific ortho equipment is listed on the required equip. list)</td>
<td>(no specific ortho equipment is listed on the required equip. list)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ancillary Services</th>
<th>Level I/II</th>
<th>Level III</th>
<th>Level IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team always available</td>
<td>OR required (30 min)</td>
<td>OR optional</td>
<td></td>
</tr>
<tr>
<td>ICU co-directed by surgeon with equipment, trained nursing staff, etc.</td>
<td>ICU required</td>
<td>ICU optional</td>
<td></td>
</tr>
<tr>
<td>Onsite rehab including physical, occupational, speech, social services plus inpatient rehab unit or xfer to rehab hospital</td>
<td>Rehabilitation - need to provide it or have transfer guidelines to access rehab. services</td>
<td>Optional</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trauma Designation Review Team</th>
<th>Level I/II</th>
<th>Level III</th>
<th>Level IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 general surgeons, emergency physician, trauma nurse manager</td>
<td>General surgeon, emergency physician, trauma nurse coordinator</td>
<td>Emergency physician(or surgeon) and trauma nurse coordinator</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality Improvement</th>
<th>Level I/II</th>
<th>Level III</th>
<th>Level IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must participate in PI process, multi disciplinary and peer review</td>
<td>Implied participation in PI process</td>
<td>No mention</td>
<td></td>
</tr>
</tbody>
</table>
Indicate which orthopedic conditions may be managed at your hospital.

Chest
- Flail chest
- Multiple rib fractures
- Scapular fracture
- Clavicular fracture
- Sterno-clavicular dislocation

Spine
- Cervical spine fracture/dislocation
- T/L spinal fracture/dislocation w/ neuro impairment
- Vertebral body fracture
- Vertebral burst
- Spinal process fracture
- Compression fracture

Pelvis
- Open pelvic fracture
- Stable pelvic ring disruption
- Unstable pelvic ring disruption
- Acetabular fracture
- Pelvic fracture w/ shock

Extremities
- Open long bone fracture
- Two or more long bone fractures
- Fracture or dislocation w/ loss of distal pulses
- Extremity ischemia
- Fracture w/ abnormal neuro exam
- Compartmental syndromes

Shoulder dislocation
- Acromioclavicular fracture/dislocation
- Proximal humerus fracture
- Distal humerus fracture
- Elbow fracture/dislocation
- Forearm fracture
- Distal radius fracture
- Hand/wrist comminuted fracture w/ nerve involvement
- Carpal dislocation
- Metacarpal fracture
- Hand amputation
- Finger amputation
- Fingertip amputation involving phalange
- Phalanx fracture

Hip fracture

Femur fracture
- Knee dislocation
- Proximal tibia fracture
- Distal tibia fracture
- Pilon fracture
- Ankle fracture
- Talus fracture
- Calcaneus fracture
- Midfoot dislocation
- Subtalar dislocation
- Metatarsal fracture
- Phalanx fracture

Our hospital routinely transfers all of these orthopedic conditions.