### Trauma and Burn Protocol Section

**Neuro Exam:** Any focal deficit?
- **YES**
- **NO**

**Spinal Exam:**
- **Point tenderness over the spinous process(es) or pain to ROM?**
  - **YES**
  - **NO**

**Distracting Injury:**
- Any painful injury that might distract the patient from the pain of a c-spine injury?
  - **YES**
  - **NO**

**Intoxication:**
- Any evidence?
  - **Includes Drugs and/or Alcohol**
  - **YES**
  - **NO**

**Alertness:** Altered in mental status?
- **YES**
- **NO**

**Spinal Exam:**
- **Point tenderness over the spinous process(es) or pain to ROM?**
  - **YES**
  - **NO**

**Spinal Motion Restriction Not Required**

**Pearls**
- **Recommended Exam:** Mental Status, Skin, Neck, Heart, Lungs, Abdomen, Back, Extremities, Neuro
- **Patients meeting all the above criteria do not require spinal motion restriction.** However, patients who fail one or more criteria above require spinal motion restriction, but does **NOT** require use of the long spine board for immobilization.
- **Long spine boards are NOT considered standard of care in most cases of potential spinal injury.** Spinal motion restriction with cervical collar and securing patient to cot, while padding all void areas is appropriate.
- **True spinal immobilization is not possible.** Spine protection and spinal motion restriction do not equal long spine board.
- **Spinal motion restriction is always utilized in at-risk patients.** These include cervical collar, securing to stretcher, minimizing movement / transfers and maintenance of in-line spine stabilization during any necessary movement / transfers. This includes the elderly or others with body or spine habitus preventing them from lying flat.
- **Consider spinal motion restriction in patients with arthritis, cancer, dialysis, underlying spine or bone disease.**
- **Range of motion (ROM) is tested by touching chin to chest (look down), extending neck (look up), and turning head from side to side (shoulder to shoulder) without posterior cervical mid-line pain.** ROM should **NOT** be assessed if patient has midline spinal tenderness. Patient's range of motion should not be assisted.
- **Immobilization on a long spine board is not necessary where:**
  - Penetrating trauma to the head, neck or torso with no signs / symptoms of spinal injury.
- **Concerning mechanisms that may result in spinal column injury:**
  - Fall from ≥ 3 feet and/or ≥ 5 stairs or steps
  - MVC ≥ 30 mph, rollover, and/or ejection
  - Motorcycle, bicycle, other mobile device, or pedestrian-vehicle crash
  - Diving or axial load to spine
  - Electric shock

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**Spinal Motion Restriction**

<table>
<thead>
<tr>
<th>Relevant Criteria</th>
<th>Action</th>
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<tbody>
<tr>
<td>B</td>
<td>Neuro Exam: Any focal deficit?</td>
</tr>
<tr>
<td>B</td>
<td>Significant mechanism of injury? High-energy events such as ejection, high falls, and abrupt deceleration crashes</td>
</tr>
<tr>
<td>B</td>
<td>Alertness: Alteration in mental status?</td>
</tr>
<tr>
<td>B</td>
<td>Intoxication: Any evidence? Includes Drugs and/ or Alcohol</td>
</tr>
<tr>
<td>B</td>
<td>Distracting Injury: Any painful injury that might distract the patient from the pain of a c-spine injury?</td>
</tr>
<tr>
<td>B</td>
<td>Spinal Exam: Point tenderness over the spinous process(es) or pain to ROM?</td>
</tr>
</tbody>
</table>

**Exit to Appropriate protocol(s)**

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**AMBULATORY**
- **Bring stretcher to patient, assist patient onto stretcher with minimal spinal movement, and then secure patient to stretcher.**

**NONAMBULATORY**
- **Use Long Spine Board (OR any of the multiple equivalent devices) to TRANSFER patient to stretcher with minimal spinal movement, remove the device, then secure to stretcher.**
  - May use multiple providers to transfer patient to stretcher using in-line spinal techniques such as log roll / straddle slide to maintain spinal precautions without a device, then secure to stretcher.

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**Rev: 01/01/2017**

Any local EMS System changes to this document must follow the NC OEMS Protocol Change Policy and be approved by OEMS