Chapter 13 - Assessment of the Trauma Patient

OBJECTIVES

13.1 Define key terms introduced in this chapter. Slides 15, 26, 32, 35–36, 39, 46

13.2 Differentiate between trauma patients with significant mechanism of injury and those without a significant mechanism of injury. Slides 14, 24, 31–34

13.3 Conduct a systematic secondary assessment of the trauma patient with no significant mechanism of injury. Slides 14–23

13.4 Select the appropriate physical examination for a patient with no significant mechanism of injury. Slides 16–20
OBJECTIVES

13.5 Recognize patients for whom manual stabilization of the cervical spine and application of a cervical collar are indicated. Slides 27–30

13.6 Conduct a systematic secondary assessment of an unstable or potentially unstable trauma patient, or patient with a significant mechanism of injury. Slides 31–41

continued

OBJECTIVES

13.7 Explain the purpose of the rapid trauma assessment. Slide 32

13.8 Recognize significant findings in the rapid trauma assessment. Slides 34–41

13.9 Recognize situations in which you should consider requesting advanced life support personnel to assist with the management of a trauma patient. Slide 41

continued

OBJECTIVES

13.10 Incorporate a detailed physical examination of the unstable or potentially unstable trauma patient at the appropriate time for a given scenario. Slides 46–47, 50–51
Chapter 13 -
Assessment of the trauma patient

CORE CONCEPTS

- The difference between assessment procedures for a trauma patient with no significant mechanism or injury and for a patient with a significant mechanism or injury

CORE CONCEPTS

- How to conduct a history of the present illness for a trauma patient
- How to perform a physical exam for a trauma patient
Chapter 13 - Assessment_of_the_trauma_patient

CORE CONCEPTS

- How to obtain a past medical history for a trauma patient
- How to perform a rapid trauma assessment
- When and how to perform a detailed physical examination for a trauma patient

Topics

- Secondary Assessment of the Trauma Patient
- Detailed Physical Exam
- Comparing Assessments

Secondary Assessment of the Trauma Patient
Components of Secondary Assessment

- Focused history gathering
- Physical examination

Patient with No Significant MOI

- Assessment focused on areas patient notes are painful or that MOI indicates
- Chief complaint (why patient called EMS)
- History of present illness—information on how injury occurred

Elements of History of Present Illness

- Nature of force involved
- Direction and strength of force
- Protective equipment used by patient
- Actions taken to prevent or minimize injury
- Areas of pain and injuries resulting from incident
Chapter 13 - Assessment of the Trauma Patient

Physical Examination

- Areas assessed depend on injuries and chief complaint
- Mechanism of injury may point to potential injuries
- Three techniques: inspection, palpation, auscultation

Physical Examination: Inspection

- Look for
  - Abnormalities in symmetry
  - Color
  - Shape
  - Movement

Physical Examination: Palpation

- Feel for
  - Abnormalities in shape
  - Temperature
  - Texture
  - Sensation
Chapter 13 -
Assessment of the trauma patient

Physical Examination: Auscultation
- Listen for
  - Decreased or absent breath sounds

Physical Examination: DCAP-BTLS
- Deformities
- Contusions
- Abrasions
- Punctures and penetrations
- Burns
- Tenderness
- Lacerations
- Swelling

Deformities
Chapter 13 - Assessment_of_the_trauma_patient

Punctures/Penetrations

Swelling

Secondary Assessment—No Significant MOI

- Obtain baseline vital signs
- Obtain past medical history
Baseline Vital Signs

- Signs—objective
  - Things you see, hear, feel, smell during exam
  - Vital signs
  - Sweaty skin, staggering, vomiting
- Symptoms—subjective
  - Patient feels and tells you about
  - Chest pain, dizziness, nausea

Past Medical History

- SAMPLE
  - Signs and symptoms
  - Allergies
  - Medications
  - Pertinent past history
  - Last oral intake
  - Events leading to injury or illness

Apply Cervical Collar

- Apply if MOI, history, or signs and symptoms indicate use
- Make sure collar is correct size
Apply Cervical Collar

- Assess patient’s neck prior to placing collar
- Reassure patient
- Size collar
- Remove jewelry and move hair

continued

Apply Cervical Collar

- Slide collar into place from front

Apply Cervical Collar

- Collar alone does not provide adequate in-line immobilization
- Must be paired with manual stabilization or fixation to long board
Secondary Assessment: Significant MOI

- Continue manual stabilization
- Request ALS
  - Complete head-to-toe rapid trauma assessment instead of focused exam.

Rapid Trauma Assessment

- Requires only a few moments
- Should be performed at scene
- Care provided en route will be based on this assessment

Components of Rapid Trauma Assessment

- Head
- Neck
- Chest
- Abdomen
- Pelvis
- Back
- Extremities
- Baseline vital signs
Chapter 13 -
Assessment of the Trauma Patient

General Principles

• In all areas look for DCAP-BTLS or other abnormal findings
• Communicate with patient
• Expose injured area before examining it
• Assume spinal injury
• Stop or alter assessment process to provide care

Head and Neck

• In addition to DCAP-BTLS, look for
  – Cerebrospinal fluid in ears and nose
  – Unequal pupils
  – Jugular venous distention
• Consider applying cervical collar

Chest and Abdomen

• In addition to DCAP-BTLS, look for
  – Paradoxical motion
  – Crepitation
  – Equal breath sounds
  – Distention
Assessing the Chest

Assessing the Abdomen

- Palpate all four quadrants

Pelvis and Extremities

- In addition to DCAP-BTLS, look for
  - Priapism
  - Distal circulation, sensation, and motor function
Chapter 13 - Assessment_of_the_trauma_patient

Assess Distal Circulation, Sensation, Motor Function

Posterior/Back

Think About It

- What criteria would you use to decide whether to perform a focused exam or a rapid trauma exam?
Chapter 13 - Assessment of the Trauma Patient

Trauma Assessment: Pediatric Note

- Lesser mechanisms can cause significant damage
- Need to explain assessments more thoroughly in this population

Multiple System Trauma: Paramedic Video

Click here to view a video on the subject of managing treatment of a trauma patient.

Detailed Physical Exam
Detailed Physical Exam

- Typically completed en route to hospital
- Gathers additional information
- Complements primary and secondary assessments
- Performed after all critical interventions completed
- Primary assessment re-evaluated again before initiating

Performing Detailed Physical Exam

- Expose patient
- Work around immobilization equipment
- Components similar to rapid trauma exam
- More detail and focus

Think About It

- Is it necessary to always complete a detailed assessment on a trauma patient with no significant mechanism or injury?
Comparing Assessments

Responsive Child: No Significant MOI
- Chief complaint
- Physical exam
- Baseline vital signs
- History
- Detailed physical exam and further care

Unresponsive Adult: Significant MOI
- History of present illness
- Manual stabilization of head and neck
- ALS request
- Rapid trauma assessment
- Baseline vital signs
- Past medical history
- Detailed physical exam
Chapter Review

• The patient without significant MOI receives history of present illness and physical exam focused on areas patient complains about and areas you think may be injured based on MOI.
• Gather a set of baseline vital signs and a past medical history.

continued

Chapter Review

• For patient with significant injury or MOI, ensure continued manual stabilization of the head and neck, consider whether to call ALS (if available), get a brief history of the present illness, and then perform a rapid trauma assessment.

continued
Chapter Review

• Look for wounds, tenderness, deformities, plus additional signs appropriate to part being assessed.
• Systematically examine head, neck, chest, abdomen, pelvis, extremities, posterior body.
• After assessing neck, apply cervical collar.

continued

Chapter Review

• After completing physical assessment, immobilize patient to spine board and get baseline set of vital signs and past medical history.
• After performing appropriate critical interventions and transport has begun, patient may receive detailed physical exam en route to hospital.

continued

Chapter Review

• Detailed physical exam is very similar to the rapid trauma assessment, but there is time to be more thorough.
• Detailed physical exam does not take place before transport unless transport is delayed.

continued
Chapter Review

- Detailed physical exam is most appropriate for trauma patient who is unresponsive or has significant injury or unknown MOI.
- Responsive trauma patient with no significant injury or MOI will seldom require detailed physical exam.

Remember

- Use MOI to determine the need for a rapid trauma assessment.
- Assume spinal injury.
- Work as a team to complete the assessment.

Questions to Consider

- How do the focused history and physical exam of a trauma patient with a significant MOI differ from those for a trauma patient with no significant MOI?
Questions to Consider

• List the steps and areas covered in the rapid trauma assessment. How are these steps different in the detailed assessment?

Critical Thinking

• You are assessing a patient who fell three stories. He is unresponsive and bleeding into his airway. The driver of the ambulance is positioning the vehicle and bringing equipment to you.

Critical Thinking

• How do you balance the patient's need for airway control (he requires frequent suctioning) with the need to assess his injuries?
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