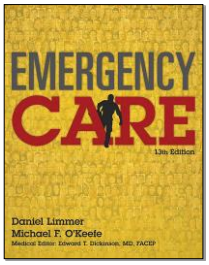
Emergency Care

THIRTEENTH EDITION



CHAPTER 14

The Secondary Assessment

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved

Components of the Secondary Assessment

- Physical examination
- Patient history
  - History of the present illness (HPI)
  - Past medical history (PMH)
  - Signs (what is seen)
  - Symptom (what is heard)
- Vital signs
- Reassessment

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved

Techniques of Assessment

- Develop a rapport
- Demonstrate empathy
- Listening carefully
  - Ask open-ended questions
  - Closed-ended questions when necessary

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved

Assessment Mnemonic

Table 1: OPQRST and SAMPLE history methods

O	Onset of event	S	Symptoms
P	Provocation	A	Allergies
Q	Quality of pain	M	Medications
R	Region and radiation	P	Pertinent medical history
S	Severity	L	Last meal
T	Time/signs	E	Event leading up to the injury or illness

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved

Techniques of Assessment

Physical Exam: Observe – Auscultate – Palpate

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved

Body System Examinations

- Relevant exams
- Deeper understanding of pathophysiology
- One or several body systems to evaluate

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved

Respiratory System

- Are they BREATHING adequately?

History:
- Exertional dyspnea
- Weight gain
- Orthopnea (position sleeping)
- Cough

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Respiratory Assessment—History

- Is the distress an acute illness, or exacerbation of a chronic condition?
- Determine if medications have been taken as prescribed.
- Determine if signs and symptoms of this episode match previous episodes.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Respiratory Assessment—Physical Examination

- Mental status (oxygen delivery)
- Level of respiratory distress (work)
- Chest wall motion (pneumothorax)
- Auscultate lung sounds
- Use pulse oximetry (room air)
- Observe pedal edema
- Dyspnea on exertion
- Fever (pneumonia)

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Cardiovascular System

- Heart & blood vessels
- Cardiac patient and patient in shock or with a vascular problem

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Cardiovascular System—History

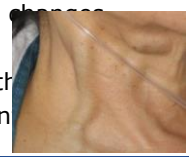
- Existing cardiac conditions and medications
- Signs and symptoms of episode
- Description of chest pain using OPQRST
- Describe the pain (in their words)

➢ Components of the respiratory assessment are the same of cardiac

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Cardiovascular System—Physical Examination

- Look for signs condition may be severe.
- Mental status
- Obtain pulse and blood pressure.
- Narrowed pulse pressure?
- Orthostatic blood pressure changes
- Palpate the chest.
- Observe posture and breath
- Look for jugular vein disten



Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Nervous System

- Mental status – brain function
- Signs of dysfunction in the body

A-E-I-O-U-T-I-P-S

A Acidosis, Alcohol intoxication
E Epilepsy
I Infection
O Overdose (Drug or Alcohol)
U Uremia
T Trauma, Tumor
I Insulin (low BLOOD SUGAR)
P Psychosis
S Stroke

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

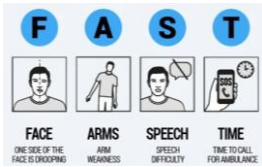
Neurologic Assessment—History

- Determine patient's mental status.
- Baseline mental state
- Obtain history of neurologic conditions.
- Note patient's speech and other cognitive functions.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Neurologic Assessment—Physical Examination

- Check peripheral sensation, movement, and strength.
- Check pupils for equality and reactivity.
- Gently palpate the spine.
- Perform a stroke scale.



Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Endocrine System

- The most common endocrine emergency is the diabetic patient.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

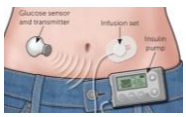
Endocrine Assessment—History

- Diabetes mellitus or thyroid disease
- Current medications, properly taken, dosage changes, etc.
- Whether patient has eaten or exerted energy at an unusual level
- Whether patient is sick
- Whether patient has taken blood glucose or uses insulin pump

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

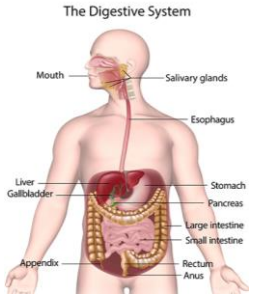
Endocrine Assessment—Physical Examination

- Evaluate patient's mental status.
- Observe the patient's skin.
- Obtain a blood glucose level.
- Detection of unusual breath odors.
- Excessive hunger, thirst, or urination.
- Look for an insulin pump.



Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Gastrointestinal System



- Looking for:
  - What goes in
  - What comes out
  - What it looks like when it comes out

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

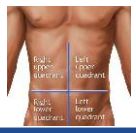
Gastrointestinal Assessment—History

- Oral intake – anything PO or NPO
- Pain
- Gastrointestinal issues
- Vomiting (characteristics)
- Bowel movements
- Menstrual history/pregnancy?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Gastrointestinal Assessment—Physical Examination

- Observe patient's position.
- Assess the abdomen.
- Inspect other parts of the gastrointestinal system.
- Inspect vomitus or feces if available.



Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Immune System

- Allergic reaction most relevant for EMS
  - Anaphylaxis

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Immune System—Patient History

- History of allergies
  - If so, what are typical reactions like?
- Symptoms of tightness in chest or throat, swelling
- Is it localized….or systemic?
- Medications for allergic reaction

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Immune System—Physical Examination

- Perform physical examination
  - Inspect point of contact with allergen.
  - Inspect patient's skin for hives.
  - Inspect the face, lips, and mouth for swelling.
  - Listen to lungs to assure adequate breathing.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Musculoskeletal System

- Medical diseases in this system are rare.
- Bones most important aspect to assess

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Musculoskeletal Assessment—History

- Prior injuries
- Whether patient takes blood-thinning medication
- History to determine if a medical problem caused the traumatic injury

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Musculoskeletal Assessment—Physical Examination

- Inspect for signs of injury, such as deformity (DOTS).
- Palpate areas with suspected injury.
- Compare sides for symmetry.
- Be alert for crepitation.
- Assess patient head-to-toe if there are multiple injuries or if the patient is unresponsive.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Secondary Assessment of the Medical Patient

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Secondary Assessment of the Medical Patient

- Assessment varies depending on patient's ability to communicate.
  - Responsive medical patient
    - Focus on chief complaint.
  - Unresponsive medical patient
    - Focus on physical findings.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Responsive Medical Patient

- OPQRST and SAMPLE history
  - From the patient, family, bystanders
  - Ask open ended questions

Table 1: OPQRST and SAMPLE history methods

O	Onset of event	S	Symptoms
P	Provocation	A	Allergies
Q	Quality of pain	M	Medications
R	Region and radiation	P	Pertinent medical history
S	Severity	L	Last meal
T	Time/signs	E	Event leading up to the injury or illness

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Responsive Medical Patient

- Conduct focused physical exam
- Past medical history
- Obtain baseline vital signs
- Administer interventions and transport the patient.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Pediatric Note

- Get on same level with child.
- Put questions in simple language.
- Gather information from caregivers.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Perform a Physical Exam

- Usually brief
- Examine areas of concern based on chief complaint.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Obtain Baseline Vital Signs

- Essential to assessment of medical patient
- Later assessments of vital signs will be compared to baseline.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Administer Interventions and Transport the Patient

- Remember a decision for prompt transportation of critical patients or those with specific complaints is part of a treatment plan.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

- Where would you focus your physical examination on a patient complaining of shortness of breath?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Unresponsive Medical Patient

- Begin with physical exam and baseline vital signs
- Then gather history from bystanders or family members
- Do rapid assessment of entire body

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Perform a Rapid Physical Exam

- Similar to head-to-toe physical exam for trauma patient
- Head
  - Visual trauma, and pupils
- Neck
  - Jugular vein distention
- Chest
  - Breath sounds and symmetry

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Perform a Rapid Physical Exam

- Abdomen
  - Distention, firmness or rigidity
- Pelvis
  - Incontinence of urine or feces
- Extremities
  - Pulse, motor function, sensation, oxygen saturation
- Check for Medical ID devices.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Obtain Baseline Vital Signs

- Assess:
  - Pulse
  - Respirations
  - Skin
  - Pupils
  - Blood pressure
- Take note of any abnormalities.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Consider a Request for ALS Personnel

- Consider a request for ALS personnel.
  - Depends on geographic options, types of facility available

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Take a History of Present Illness and a Past Medical History

- Question bystanders
  - What is the patient's name?
  - What happened?
  - Did you see anything else?
  - Did the patient complain before this happened?
  - Does patient have any known illnesses or problems?
  - Is the patient taking any medications?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Spinal Immobilization?

- Look for mechanism of injury or signs that suggest a spine injury.
- If needed, immobilize the patient's spine.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

- What other mechanisms might you have to obtain patient history other than speaking to bystanders?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Secondary Assessment of the Trauma Patient

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Secondary Assessment of the Trauma Patient

- Injuries can range from slight > severe.
- Consideration of factors for severity
  - Location of injury or injuries on patient
  - Patient's mental status
  - Patient's airway status
  - Vital signs
  - Mechanism of injury
  - Patient's age or preexisting conditions

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Trauma Patient with Minor Injury/Low Priority

- Assessment is focused on areas patient notes are painful or that mechanism of injury (MOI) indicates.
- Determine the chief complaint
- Conduct a history of present illness to gain information on how injury occurred

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Determine the Chief Complaint

- Major injury – goal of rapid transport
- Use MOI or injuries to determine how to complete secondary assessment
- No major MOI – focus on local injury
  - Event history, exam, vitals, past history
- Chief complaint = what the patient tells you is the matter

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Conduct a History of the 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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Physical Examination

- Three techniques:
  - Observation, Palpation, and Auscultation
- Observe for:
  - Abnormalities in symmetry
  - Color
  - Shape
  - Movement

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Physical Examination

- Palpate for:
  - Abnormalities in shape
  - Temperature
  - Texture
  - Sensation
- Auscultate for:
  - Decreased or absent breath sounds

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Physical Examination

- DCAP-BTLS (EMT)
  - Deformities
  - Contusions
  - Abrasions
  - Punctures/Penetrations
  - Burns
  - Tenderness
  - Lacerations
  - Swelling
- DOTS (EMR)
  - Deformities
  - Open Wounds
  - Tenderness
  - Swelling

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Obtain Baseline Vital Signs and a Past Medical History

- After physical exam - Assess baseline vital signs and take a past medical history.
- Use SAMPLE and other pertinent questions when examining the patient.

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Applying a Cervical Collar

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Applying a Cervical Collar

- Assess patient's neck prior to placing collar.
- Reassure patient.
- Size collar.
- Remove jewelry and move hair.
- Keep patient's head in the in-line anatomical position.
- Slide collar into place from front.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Apply Cervical Collar

Sizing a Cervical Collar: 1. Measure the patient's neck.

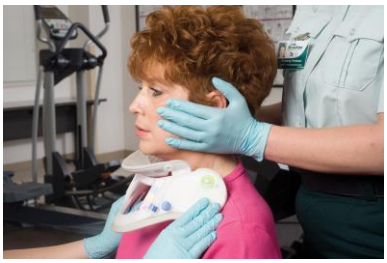
Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Apply Cervical Collar

Sizing a Cervical Collar: 2. Measure the collar. The chin piece should not lift the patient's chin and hyperextend the neck. Make sure the collar is not too small or tight, which would make the collar act as a constricting band.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Apply Cervical Collar



Applying an Adjustable Collar to a Seated Patient

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Applying a Cervical Collar

- Collar alone does not provide adequate in-line immobilization.
- Must be paired with manual stabilization or fixation to long board.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Trauma Patient with Serious Injury or Multisystem Trauma/High Priority

Significant Mechanisms of Injury
Falls: Adult > 20 feet, Children > 10 feet (or 2-3 times height)
Intrusion > 12 inches to occupant site, or > 18 inches to any site
Ejection (partial or complete) from automobile
Death in same passenger compartment
Vehicle telemetry date consistent with high risk of injury
Auto versus pedestrian/bicyclist (> 20 mph)
Motorcycle crash > 20 mph

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Perform a Rapid Trauma Assessment

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

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Rapid Trauma Assessment - Head

- Rapid assessment of the head
  - Palpate cranium, face, ears, eyes, nose, and mouth
  - Blood or clear fluid are serious findings.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Rapid Trauma Assessment - Neck

- Rapid assessment of the neck
  - Wounds, tenderness, deformities, and jugular vein distention
  - Stoma or tracheostomy
  - Apply a cervical collar

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Assessing the Chest

- Rapid assessment of the chest
  - Paradoxical motion, crepitation, tenderness, wounds and breath sounds
  - Rib cage and chest must be exposed.
  - Breath sounds

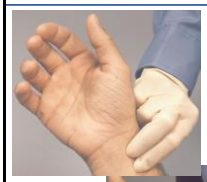
Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

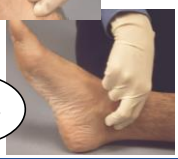
Assessing Abdomen and Pelvis

- Rapid assessment of the abdomen
  - Distention, pulsating mass
  - Gently press down on quadrants.
- Rapid assessment of the pelvis
  - Tenderness
  - Deformities
  - Bleeding
  - Priapism

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Assessing Extremities
Circulation – Movement - Sensation





Perform bilaterally

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Posterior/Back

- Posterior body assessment
  - Roll patient on side, then assess.
  - Roll back onto awaiting backboard.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Some General Principles

- Communicate with patient.
- Expose injured area before examining it.
- Maintain eye contact.
- Assume spinal injury.
- Stop or alter assessment process to provide care.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Pediatric Notes

- Lesser mechanisms can cause significant damage.
- Explain assessments more thoroughly in this population.
- Assure cervical collars are not too tight

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

- What criteria would you use to decide whether to perform a focused physical exam or a rapid trauma exam?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Detailed Physical Exam

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Performing the Detailed Physical Exam

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Trauma Patient with a Significant Injury

- Likely already have assessed entire body during rapid trauma assessment
- Now need to assess the entire body more thoroughly to possibly reveal signs or symptoms of injury you may have missed or have changed since the rapid trauma assessment.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Before Beginning the Detailed Physical Exam

- Perform this only after you have performed all critical interventions.
- If you are treating a severely injured patient and are too busy to complete the detailed exam, it is not a failure.
  - It is your responsibility to give the patient the best care possible, which may mean skipping the exam in order to maintain ABCs.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Trauma Patient Who Is Not Seriously Injured

- Generally does not need a detailed physical exam - focused
- Keep a high index of suspicion, and when in doubt perform a detailed physical exam.
- Be aware of patient's fear and need for emotional support.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Reassessment

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Reassessment

- Patient's condition always subject to change
- Continues on initial steps of assessment
- Identifies changes and trends
- Do not skip except when lifesaving interventions prevent you from doing it

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Reassessment

- Identifies
  - Changes
    - Subtle and profound
  - Trends
  - Deterioration
  - Improvement

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Reassessment

- Communicate with the patient.
  - Explain process.
  - Consider patient's feelings, such as anxiety or embarrassment.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Components of Reassessment

- Repeat the primary assessment
  - Recheck for life-threatening problems
    - Reassess mental status.
    - Maintain open airway.
    - Monitor breathing for rate and quality.
    - Reassess pulse for rate and quality.
    - Monitor skin color and temperature.
    - Reestablish patient priorities.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Components of Reassessment

- Reassess and record vital signs
  - Compare results with baseline measurements.
  - Reevaluate oxygen saturation.
  - Document findings to record and identify trends.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Pediatric Note

- Continue to maintain eye contact and explain what you are doing
- How do you check the mental status on an unresponsive child
  - Verbal (shout)
  - Painful (flick soles of the feet)
- Crying is an expected response from a child with adequate mental status.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

- Think of an example of a problem that might develop into a life threat to the patient on the way to the hospital.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Components of Reassessment

- Repeat pertinent parts of the history and physical exam
  - Chief complaint may change, especially with regard to severity.
  - Ask about symptom changes – especially after treatments
  - Repeat physical exam to identify changes from baseline.

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

What Interventions?

- Describe an example of an intervention that might need to be reevaluated and discuss your process for examining it.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Components of Reassessment

- Check interventions
  - Ensure adequacy of oxygen delivery and artificial ventilation.
  - Ensure management of bleeding.
  - Ensure adequacy of other interventions (splinting?).

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Observing Trends

- Repeat reassessment steps frequently.
- Establish and document trends.
- Trending
  - Observing patterns that have emerged among vital signs
- Trends may indicate new treatments or adjustments to ongoing treatments.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Reassessment for Stable and Unstable Patients

- When to reassess
  - Every 15 minutes for stable patient.
  - Every 5 minutes for unstable or potentially unstable patient.
  - If you believe there may have been a change in patient's condition, repeat at least primary assessment.
  - Length of time with patient will also dictate reassessment frequency.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Critical Thinking and Decision Making

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

EMT Diagnosis and Critical Thinking

- Diagnosis is label for condition.
  - Based on history, physical examination, vital signs
  - Involves both physical and intellectual activity

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

How a Clinician Reaches a Diagnosis

- Clinicians have different levels of training, experience, time, technology and other resources.
- Techniques vary among types of clinicians.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

The Traditional Approach to Diagnosis in Medicine

- Assess patient
- List of conditions or diagnoses
  - "Differential diagnosis" or "the differential"
- Further evaluation
  - Reevaluate the differential
- Final diagnosis

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

The Emergency Medicine Approach to Diagnosis

- Quickly rule out and treat immediate life threats.
  - Stabilize patient.
- Return to gather additional information.
- Focus on ruling out worst-case scenario.
  - Red flags suggest problem serious.
- May be responsible for multiple patients

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

The EMS Approach to Diagnosis

- Must be very efficient
  - Be available for another call as soon as possible.
- Work in uncontrolled environment
- Limited tools and skill set
- Narrow educational focus

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

The EMS Approach to Diagnosis

- Follows same steps as emergency physician
  - Most are abbreviated or limited.
- Considers most serious conditions associated with patient
  - Rules them in or out
- Creates a diagnosis

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

- You can reach a diagnosis, but your work is not done. Why?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

The Highly Experienced Clinician's Approach to Diagnosis in Medicine

- Experienced clinicians learn heuristics (shortcuts).
  - Pattern recognition
  - Features narrowing possibilities
- Allows efficient diagnosis and prompt treatment
- Realizes limitations of shortcuts
  - Understands common biases of heuristics

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

The Highly Experienced Clinician's Approach to Diagnosis in Medicine

- Common heuristics and biases
  - Representativeness – atypical S/S
  - Availability – How common is condition
  - Overconfidence – Limits of knowledge
  - Confirmation bias – Supporting evidence
  - Illusory correlation – One event, or two
  - Anchoring and adjustment – Be adaptable
  - Search satisfying – Keep an open mind

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

How an EMT Can Learn to Think Like an Experienced Physician

- Learn to love ambiguity.
- Understand the limitations of technology and people.
- Realize no one strategy works for everything.
- Form a strong foundation of knowledge.
- Organize the data in your head.
- Change the way you think.
- Learn from others.
- Reflect on what you have learned.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Think About It

- What are some of the important things to remember as you learn how to make a diagnosis and improve your critical thinking skills in EMS?

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Chapter Review

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Chapter Review

- EMTs make some diagnoses in the field, although they are not as extensive or detailed as physicians' diagnoses.
- The traditional approach to reaching a diagnosis is to assess the patient, draw up a list of differential diagnoses, assess further to rule in or rule out different conditions, and narrow the list until you reach a conclusion.

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Chapter Review

- When considering the cause of a patient's condition, don't let your search for a cause delay your treatment of the patient.

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Remember

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Questions to Consider

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

continued on next slide

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Questions to Consider

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Critical Thinking

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

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON

Copyright © 2016, 2012, 2009 by Pearson Education, Inc. All Rights Reserved PEARSON