

Trauma Assessment:
Primary Secondary Tertiary
It's as easy as ABC
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Education Goal: Learn about the Tertiary Assessment in Trauma

- What is the importance of the Tertiary Trauma Assessment?
- What is new with the Primary and Secondary Assessments?
- Every patient, every time, the same? Why is this important?
- It's as easy as ABC

What are the Primary and Secondary Assessments?

- Trauma Assessment

An approach that identifies and treats or stabilizes life threatening injuries in an efficient manner

While done in the emergency setting, the ideals and process can be repeated at any time, anywhere

What are the primary and secondary assessments?

Primary: ABCDE with resuscitation adjuncts (FG)

Secondary: H and I with reevaluation adjuncts

Primary Assessment in Trauma:

Let's take a closer look

- **A**irway and **A**lertness with simultaneous cervical spine stabilization
 - Is the airway open, free from fluid/debris, swelling? Is the pt alert? Do they respond to the verbal or painful stimuli?
- **B**reathing:
 - What is the rate, quality, rhythm?
- **C**irculation:
 - What is the pulse, BP, ECG, any gross bleeding, IV access
- **D**isability:
 - What is the Neuro Status, Glasgow Coma Scale (GCS)
- **E**nvironment:
 - Expose the patient while offering warming measures
- Get a **F**ull set of vital signs and **F**amily presence
- **G**et resuscitation adjuncts: labs, ECG monitor, Naso-Orogastric tube, Oxygen, Pain assessment and management

Secondary Assessment in Trauma

- Get a **H**istory and do a complete **H**ead to Toe Exam, looking, listening and feeling the entire body for injuries
- **I**nspect posterior surface (log-roll)

The ABC's

- Much like BLS or ACLS, Trauma care and assessment is systematic.
- Starting with airway and not moving on to the next step until the Airway is patent/secure.
- Then breathing and so on...to not miss any life threatening injuries and to intervene early
- While this starts in the emergency setting for trauma patients, it can be done within the in-patient setting as well

What is the Tertiary Assessment?

- Usually about 24 hours after admission, the team(MD or Advanced Practice Provider) will perform the primary and secondary assessment again, as well as a detailed head to toe assessment of the trauma pt.
- This aides to decrease possible missed injuries from the initial resuscitation. Each body part is assessed and palpated.

Tertiary Assessment: importance

- “Missed injuries occur in the time-critical and complex assessment of the severely injured trauma patients in the Emergency Department” [1]
- “The trauma tertiary survey (assessment) is the proposed solution” [1]

[1] (2012) Keijers et al. The effect of tertiary surveys on missed injuries in trauma: a systematic review J Trauma, Resuscitation & Emergency Medicine 20:77

Tertiary Assessment

This assessment includes:

Repeating the Primary & Secondary Assessment: all bony prominences are assessed and palpated.

It is a comprehensive general physical re-examination & review of all investigations (labs, images) within 24 hours of admission and is repeated when the patient is conscious, cooperative and mobilized. [1]

In addition, the mechanism of injury and predicted patterns of injury should be evaluated [2]

[2] 2011. Collins et al. Advanced Practitioner Comprehensive Tertiary Survey including incidental findings. J of Trauma Nursing 18, 2, 73-78

Tertiary Assessment

- After this assessment, if indicated, the patient is sent for further radiology exams to investigate for further injury
- Every trauma patient, after admission, needs a Tertiary Assessment by a provider, usually within 24 hours after admit from the ED to the admitting floor

Tertiary Assessment

- In situations where the patients mental status is altered or they have a distracting injury the tertiary assessment may need to be repeated multiple times until the mental status clears or the distracting injury lessens.

Tertiary Assessment

- The Tertiary assessment includes repeating this complete head to toe exam looking for new injuries
- If your patient mentions a new area of pain, for instance, please alert the MD team on rounds the morning after admission

Every patient, every time, the same

- Using this systematic approach for every patient every time improves patient care, patient safety and patient health
- Regardless of the initial mechanism of injury, this triad approach (primary, secondary, tertiary assessment) is needed within the first 24 hours and thereafter
- With this approach, injuries aren't missed and patients do better

Learn more here

- <http://www.trauma.org/archive/nurse/tertiarysurvey.html>
- <http://www.ncbi.nlm.nih.gov/m/pubmed/2352294/>
- <http://www.biomedcentral.com/content/pdf/1757-7241-20-77.pdf>
- Additional reference: (2014) TNCC 7th edition p. 39-52