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Laboratory Studies Needed in Trauma Resuscitation

Purpose: To define a standard set of laboratory studies that should be obtained for the trauma patient in an attempt to aid in diagnosis in an efficient, cost-effective manner

Definitions: Laboratory studies: an examination of the blood or other fluids to obtain information concerning physiologic derangements in the trauma patient

Guidelines:

- A. The Deaconess trauma team has minimal “routine labs” that are drawn on all patients according to injury status per Emergency Department (ED) standards of care
 - a. Blood studies should be individualized to the patient and the injuries that are being treated
 - i. This specifically refers to Category II trauma activations and trauma consultations
- B. Full trauma lab panel will be obtained for all Category I trauma activations upon arrival to the ED
 - a. This is a standing order for all Category I patients
 - b. If the patient will go for an operative procedure, the pre-op labs will also be obtained upon admission to the ED
- C. Blood alcohol will be drawn on a motor vehicle crash victim who is believed to have been the driver of the vehicle
 - a. If a blood alcohol is already documented from a referring facility, the lab does not have to be drawn
- D. For patients less than 12 years old, ETOH and urine drug screens should be obtained if assessment or medical history indicates a need
 - a. Medical ETOH and urine drug screen should be obtained on any patient less than 12 years old with suspected abuse, history of drug and/or alcohol abuse, suspected driver and/or significant change in level of consciousness or mental status

- E. Category I Trauma Panel includes EKG and the following labs
- a. ABG
 - b. CBC
 - c. Type and cross
 - d. Urinalysis with microscopic culture if indicated
 - e. Urine drug screen
 - f. Medical ETOH
 - g. Amylase
 - h. Lipase
 - i. Comprehensive metabolic
 - j. Beta HCG in female of child-bearing age (60 years old or younger)
 - k. PT/INR/PTT

References:

- Advanced Trauma Life Support; American College of Surgeons Committee on Trauma.
- Alcohol interventions for Trauma Patients are not just for Adults, Eastern Association for the Surgery of Trauma, 2009.
- Kelleher DC, Renaud EJ, Ehrlich PF, Burd RS. Pediatric Trauma Society Guidelines Committee. Guidelines for alcohol screening in adolescent trauma patients: a report from the Pediatric Trauma Society Guidelines Committee. *J Trauma Acute Care Surg* 2013; 74: 671-82.