

**UAMS MEDICAL CENTER**  
**TRAUMA and CRITICAL CARE SERVICES MANUAL**

**SUBJECT:** Laboratory studies for Emergency General Surgery

**SUPERSEDES:** New

**PAGE:** 1 of 2

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**RECOMMENDATION(S):** Kevin W. Sexton, MD  
**CONCURRENCE(S):** All

**APPROVAL:** 09/21/2017  
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**PURPOSE:**Daily ordering of laboratory studies for hospitalized patients are unnecessary, wasteful, and drive increasing healthcare costs.(Montagnana & Lippi, 2017; Ridout et al., 2016; Roman, Yang, Masciale, Korenstein, & NK, 2017; Sadowski, Lane, Wood, Robinson, & Kim, 2017; Thavendiranathan, Bagai, Ebidia, Detsky, & Choudhry, 2005) Despite this evidence, daily labs continue to be ordered at UAMS. According to recent survey results of general surgery residents at another institution, “residents attributed their behaviors to the health system culture, lack of transparency of the costs associated with health care services, and lack of faculty role models that celebrate restraint.”(Sedrak et al., 2016) This guideline sets to outline laboratory procedures for trauma and emergency general surgery.

**POLICY:**

1. Admission labs:
  - a. These should be ordered on all patients, regardless of admission diagnosis.
    - i. CBC: wbc, hemoglobin, hematocrit, and platelet count
    - ii. BMP: sodium, potassium, chloride, bicarbonate, blood urea nitrogen, creatinine, and glucose
    - iii. Nutrition labs: prealbumin, albumin, and C reactive protein
    - iv. ROTEM on all patients needing operative intervention plus trauma patients
    - v. Type and Screen
  - b. Urine analysis should be ordered on patients with urinary tract symptoms only, e.g dysuria, frequency, urgency.
  - c. For patients with indwelling lines, tubes, or drains.
    - i. Foley catheter: add urine culture
    - ii. Central line: add blood culture from the line
2. Subsequent laboratory studies
  - a. Should not be ordered unless the answer to the following 2 questions are not the same.
    - i. What will I do if the test is positive/elevated?
    - ii. What will I do if the test is negative/decreased?
3. Electrolyte management
  - a. If electrolytes are replaced (eg, potassium, magnesium, calcium, phosphorous) follow up lab studies are not needed if the patient is tolerating a regular diet, not on diuretics, and asymptomatic.(Ridout et al., 2016; Sadowski et al., 2017)
  - b. If these conditions are not met, follow up electrolyte levels should be obtained.
    - i. It is recommended to not order panels (i.e BMP, chem 7, CMP, chem 10), but to order only the electrolyte in question.
4. Postoperative patients
  - a. As routine, should require only hemoglobin and potassium levels on postoperative day 1 provided initial lab studies are normal.

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5. Physician discretion

- a. These guidelines can not serve in every clinical circumstance, that is deferred to practitioner discretion. The guiding principle for anyone ordering a lab should be:
  - i. What will I do if the test is positive/elevated?
  - ii. What will I do if the test is negative/decreased?
  - iii. If the answer to these 2 questions are the same, do not order the study.

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