

e-FAST for Trauma

Purpose

To standardize the application of e-FAST in the seriously injured patient, the technique employed, and the quality of standards by which they are retrospectively evaluated.

Background

e-FAST is a valuable diagnostic tool in the evaluation of traumatically injured patients that is able to detect life threatening intra-abdominal hemorrhage, pericardial effusion and hemo/pneumothoraces. An e-FAST exam is non-invasive, does not expose the patient to radiation, can rapidly be performed concurrently with other resuscitative measures, and is repeatable. e-FAST has a sensitivity between 73-88%, a specificity between 98-100%, and an accuracy of 96-98%.

Indications for an e-FAST Exam at UNMC/Nebraska Medicine

1. Hemodynamically unstable patients as defined by a systolic blood pressure <90 mmHg for adults and <70mmHg + (2x age in years) for pediatric patients.
2. At the discretion of the Emergency Medicine or Trauma attending.

Patients in whom e-FAST should strongly be considered

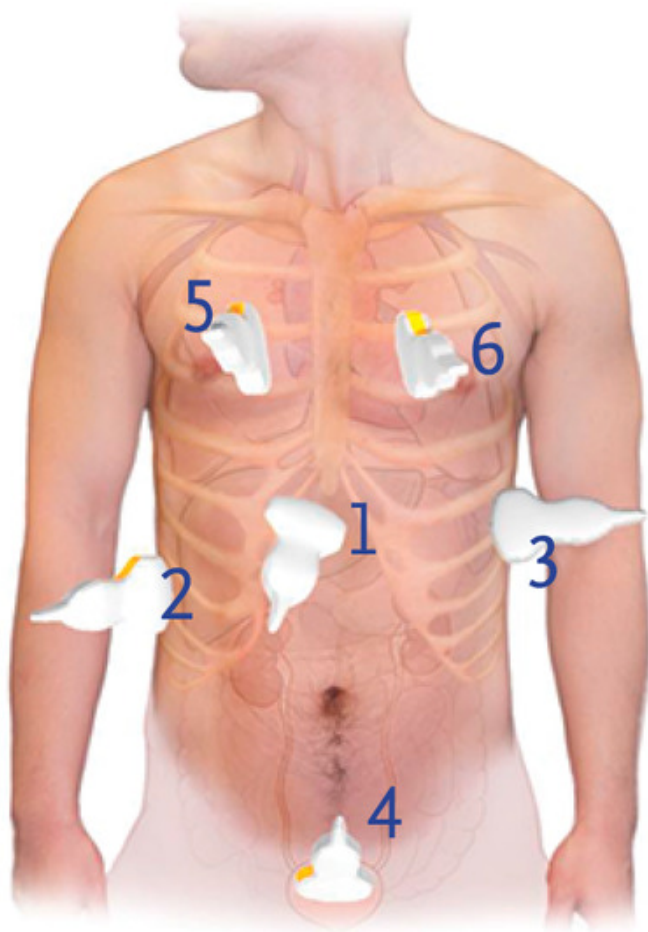
1. Pregnant patients

In these special patient populations, if an e-FAST is performed:

- a repeat abdominal ultrasound should be performed 4 hours after the initial e-FAST or sooner if the patient becomes hypotensive.
- a repeat hemoglobin at the time of repeat ultrasound

Six views of a complete e-FAST Exam

1. pericardial or subxiphoid view
2. Right upper quadrant: Lung base and hepatorenal recess
3. Left upper quadrant: Lung base and splenorenal recess
4. Pelvic: suprapubic view of bladder/Pouch of Douglas
5. Right anterior thorax
6. left anterior thorax



- 1. Pericardium**
- 2. Right upper quadrant**
- 3. Left upper quadrant**
- 4. Suprapubic area**
- 5. Right anterior thoracic**
- 6. Left anterior thoracic**

Ordering and Documentation of e-FAST exams

For all patients undergoing an e-FAST exam for trauma:

1. Place an order in the electronic medical record (EPIC) for an e-FAST exam (POC ED US E-FAST, aka FAST)
2. A procedure note will be documented by the provider performing the exam, including indication and interpretation of images.
 - the performance of an e-FAST, the indication for exam and results of the exam should also be documented in the trauma H&P.
3. Images will be saved with the patient's MRN.

Internal review of e-FAST exams:

The patients in whom e-FAST exams are indicated will be queried and the percentage of those receiving e-FAST exams reported. The documentation, image views and quality, and interpretation of images will be reviewed. Findings will be compared with CT or operative findings. Data will be presented at the monthly Performance Improvement Patient Safety (PIPS) meeting.

References

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