

Effect of Various EMS Environments on the Focused Abdominal Sonography for Trauma (FAST) Exam Review (EVEEN FASTER)

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Focused Abdominal Sonography in Trauma (FAST) has proven to be a rapid, effective, and non-invasive method for evaluating abdominal injury in the trauma room. The results of a bedside FAST exam can guide surgical intervention, and shave precious minutes off the door-to-OR time for trauma patients.

The feasibility of pre-hospital FAST exams has been the focus of recent debate. Researchers have examined the number of hours required by paramedics to learn the FAST procedure. Others have investigated how ultrasound images may be incorporated into telemetry. Unfortunately no project has investigated the relative clarity of obtained images in different field environments.

Our hypothesis is that varying field environments, specifically an ambulance and a MedEvac helicopter, will adversely affect the ability to efficiently obtain a satisfactory FAST exam compared to traditional bedside studies.

Our investigation will take place over several days. A single subject will be examined in three environments; the trauma room at Upstate University Medical Center, an ambulance moving in local traffic, and in a medevac helicopter both at rest and flying a pre-determined pattern over the city of Syracuse.

These 5 minute studies will be performed by approximately 8-10 physicians in all 4 locations. Their results will be catalogued by time and quality of exam using a Liekert scale. The examining physicians will also complete a questionnaire in regards to their perceived examination difficulties.