



Advances in Trauma Ultrasound

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KEYWORDS

• Ultrasound • Trauma • Resuscitation • FAST • Critical care • FREE • RUSH • TEE

KEY POINTS

- New uses for ultrasound are continuing to be incorporated in trauma and resuscitation.
- The extended focused assessment with sonography for trauma can have utility in both blunt and penetrating trauma.
- The Rapid Ultrasound in Shock and Hypotension examination is useful in determining the etiologies of undifferentiated shock.
- The Focused Rapid Echocardiographic Examination is an accurate rapid assessment of quantitative and qualitative cardiac function.
- Transesophageal echocardiogram may be a useful adjunct for hemodynamic monitoring, but more research is needed.

THE EXTENDED FOCUSED ASSESSMENT WITH SONOGRAPHY IN TRAUMA

In the acutely injured patient, the Focused Assessment with Sonography in Trauma (FAST) examination has become a staple in initial trauma management. Traditionally, the purpose of the FAST examination was to rapidly identify hemoperitoneum and/ or hemopericardium. In the experienced operator, this bedside assessment can typically be done in 3 to 4 minutes¹ and consists of four primary views: the right upper quadrant (RUQ), the left upper quadrant (LUQ), the pelvis or pouch of Douglas in women, and a subxiphoid cardiac view.

Review of Basic Focused Assessment with Sonography in Trauma Technique

During the RUQ assessment, a low-frequency curvilinear or phased array transducer is placed along the right mid-axillary line with the indicator-oriented cephalad. Care is

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Emerg Med Clin N Am 41 (2023) 131–142

<https://doi.org/10.1016/j.emc.2022.09.004>

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