

Clinical Evidence and Sources

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Efficiency in ICU Care

Point-of-care ultrasound at the bedsides of critically ill patients.

- Guidance of line placement and thoracentesis.
- Detection of pleural effusion.
- Assessment of cardiac status.

🗨️ **Whole-body ultrasound (in the ICU) can assist with rapid diagnosis, with minimal cost and without the need for radiation or patient transport** 🗨️¹



Reducing patient transports to CT and Radiology for procedure guidance and diagnosis, avoids transport costs and expedites treatment.

- 55% of transports are to the CT suite, 16% are for interventional radiology.²
- Personnel, coordination, and equipment costs of intrahospital transport are significant.

Society for Critical Care Medicine (SCCM) guidelines³ recommend:

- A minimum of two clinicians
- One of the two must be a critical care nurse
- Unstable patients require a physician
- Specialized providers, such as respiratory therapists
- Resuscitation and ventilation equipment and drugs
- Equivalent physiologic monitoring as in the intensive care unit

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Decreasing Time to Diagnosis and Care in the Emergency Department (ED)

Point-of-care ultrasound can improve patient flow and decrease ED congestion:

- Reduces time to operative care.⁴
- Speeds time to diagnosis and operative care for patients with ectopic pregnancies.⁵
- “When the FAST exam is employed early in the patient’s evaluation, it has been shown to decrease time to needed operation, decrease treatment costs, and decrease hospital admission lengths.”⁶

Increasing Efficiency in Anesthesia

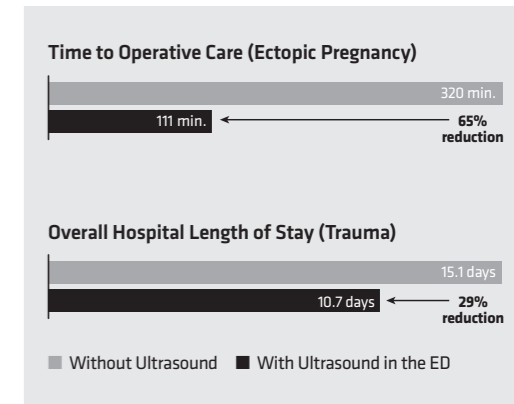
Ultrasound guidance of regional anesthesia increases the speed and quality of preoperative and postoperative care.

When compared to peripheral nerve stimulation guidance (PNS), ultrasound guided nerve blocks had:

- Shorter procedure times.⁷
- Faster onset.⁷
- Decreased risk of vascular puncture during block performance.⁷
- Longer duration.⁷

When compared to general anesthesia, ultrasound guided nerve blocks were more likely to bypass the recovery room and be discharged more quickly.⁸

The Evidence For Better Medicine: In Emergency Medicine^{4,5}



In Anesthesia⁸

