
Editorial

Use of Ultrasound in the Intensive Care Unit

For decades, ultrasound technology has been an integral part of the practice of radiology, obstetrics and cardiology. Emergency medicine clinicians later became proficient and adopted it to evaluate patients with abdominal trauma, shock, obstetric emergencies, pericardial tamponade and other life-threatening disorders. For years, critical care physicians in Europe and parts of Asia have seen the value of ultrasonography in daily practice, and proved that with proper training and experience it can almost as accessible, and far more helpful than the stethoscope. For example, an intensivist can evaluate a patient in shock noninvasively and in a few minutes for the presence of pneumothorax, pericardial tamponade and ventricular dysfunction, while predicting with reasonable accuracy the likelihood that the shock state will respond to fluid resuscitation.

The value of ultrasonography in critical care practice is now recognized by subspecialty boards; certification requirements in Critical Care Medicine by the American Board of Internal Medicine state that “proficiency in use of ultrasound to guide central line placement and thoracentesis is strongly recommended” as a means to improve patient safety. In time, proficiency in ultrasound for these and other uses will surely be required for certification. This means that intensive care units must have an immediate access to ultrasound equipment, and it is inevitable that other applications will be learned and used. Armed with a good ultrasound machine and the right training and skills, intensivists can acquire images that answer urgent clinical questions, allowing them to interpret and act on these images immediately and independently. The authors of this supplement are critical care physicians who use ultrasound every day in patient management. As ultrasonography skills are adopted widely in daily critical care practice, it is likely that years from now it will be hard to imagine how we ever took care of patients without them.

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