

# Emergency medicine ultrasound policies and reimbursement guidelines

Evelyn Cardenas, MD, FACEP<sup>a,b</sup>

<sup>a</sup>*Department of Emergency Medicine, Los Robles Regional Medical Center,  
Thousand Oaks, CA 91360, USA*

<sup>b</sup>*Assistant Clinical Professor, Department of Medicine (Emergency Medicine), UCSF/Fresno  
Medical Education Program, University Medical Center, Fresno, CA 93703, USA*

Few technologies are capable of generating as much impassioned debate and discussion as the subject of emergency ultrasound imaging. Bedside ultrasound imaging by emergency medicine has attracted more attention than virtually any other bedside procedure in recent memory. Regardless of one's point of view, every emergency medicine physician should be knowledgeable of current emergency medicine expert policy and recommendations regarding the use of ultrasound imaging technology in the emergency department (ED). In the last 3 years, a number of publications have provided critical information on practice management and reimbursement issues relating to bedside ultrasound performed by emergency physicians. The following is a summary of the salient points of these publications. Because of their potential impact and relevance to emergency medicine, specific policies issued from the general house of medicine that relate to ultrasound technology also are included in this article.

## Model of the Clinical Practice of Emergency Medicine

The model of the Clinical Practice of Emergency Medicine (EM model) [1] replaces the Core Content of Emergency Medicine as the document that defines the body of knowledge and the scope of practice of the specialty. This document is the result of a collaborative effort of the American Board of Emergency Medicine, the American College of Emergency Physicians (ACEP), the Society for Academic Emergency Medicine,

---

*E-mail address:* [emjogger@aol.com](mailto:emjogger@aol.com)

the Council of Emergency Medicine Residency Directors, the Emergency Medicine Residents' Association, and the Residency Review Committee for Emergency Medicine. The EM model describes disease presentations, tasks, and skills central to the practice of emergency medicine by board-certified emergency physicians. The EM model specifically lists bedside ultrasound skills among the necessary skills that an emergency physician should possess and states that bedside ultrasound is within the scope of practice of an emergency physician. Given that this document will serve as a foundation for future certification and recertification examinations, it is advisable that practicing emergency physicians acquire the knowledge and skills to be able to use ultrasound in the routine practice of emergency medicine. The EM model subsequently has led the Residency Review Committee for Emergency Medicine to include bedside ultrasound skills training in the accreditation review process of training programs accredited by the Accreditation Council for Graduate Medical Education [2].

### **American College of Emergency Physicians policy statement**

For over 10 years, the ACEP has had a policy regarding ultrasound imaging by emergency physicians. In 2001, ACEP published its updated policy (Box 1) [3]. This document recognizes that the use of ultrasound imaging by emergency physicians is appropriate in certain clinical situations and that emergency physicians should be reimbursed appropriately for providing emergency ultrasound procedures in the ED.

### **American College of Emergency Physicians Emergency Ultrasound Guidelines 2001**

The ACEP Emergency Ultrasound Guidelines 2001 (Guidelines 2001) [4] is a landmark publication that defines the state of ultrasonography in emergency medicine clinical practice. It is the first comprehensive publication of its kind since the first emergency medicine ultrasound curriculum was published in 1994 [5]. This document is a collaborative effort of several emergency medicine physicians with expertise in emergency ultrasound. Guidelines 2001 reviews current consensus indications for use and training, proficiency, and credentialing guidelines for emergency physicians who perform ultrasound imaging procedures in the ED. Guidelines 2001 is mandatory reading for ED managers, emergency physician group directors, and every emergency physician who seeks to integrate ultrasound imaging into his or her bedside practice.

Guidelines 2001 defines the primary indications for the application of emergency physician-performed bedside ultrasound imaging. The following primary ultrasound applications are discussed in detail, including

appropriate clinical indications and recommended ultrasound techniques/views:

1. Trauma ultrasound
2. Emergency ultrasound in pregnancy
3. Emergency imaging of the abdominal aorta
4. Biliary ultrasound
5. Renal ultrasound
6. Procedural ultrasound

Training and proficiency issues are discussed at great length in this document, including consensus recommendations for required didactic instruction and hands-on training. A minimum of 25 practice scans performed per anatomic application (minimum of 150 scans) is defined as the current standard training and proficiency numeric goal for the emergency physician. These are recommendations developed by emergency physicians for emergency physicians, given the considerations of how ultrasound imaging technology is applied in emergency medicine practice. It should be noted that these are minimum guidelines only and that individuals may have different learning curves and require more or less experiential training.

Other training guidelines have been published from nonemergency medicine organizations in the past, but the emergency medicine physician is advised to use the Guidelines 2001 document as the template to develop pathways to credentialing in a hospital-based practice.

### **Residency training and emergency ultrasound**

The status of ultrasound education in American emergency medicine residency programs is dynamic and changing in favor of continued expansion. The listing of ultrasound imaging skills in the EM model served as an impetus to expand education at the residency level. Deemed as an integral part of emergency medicine practice, residents should gain proficiency in this skill. Heller et al [6] discussed consensus opinion regarding the unique issues of integrating ultrasound education into the residency curriculum. Experiential, didactic, and equipment curriculum requirements are discussed in detail in their article that summarized the opinion of the Scope of Training Task Force of the American Board of Emergency Medicine. Although the mandate is clear, the degree of ultrasound training is not yet equal across all programs.

In a 2001 survey of 122 emergency medicine residency programs accredited by the Accreditation Council for Graduate Medical Education, Counselman et al [2] found that most residencies offer some form of training. The survey also found that time devoted to ultrasound training and the didactic component of training was variable and not uniform. The Focused Assessment with Sonography for Trauma examination was the

**Box 1. Use of ultrasound imaging by emergency physicians**

Ultrasound imaging enhances the physician's ability to evaluate, diagnose, and treat emergency department (ED) patients. Because ultrasound imaging is often time-dependent in the acutely ill or injured patient, the emergency physician is in an ideal position to use this technology. Focused ultrasound examinations provide immediate information and can answer specific questions about the patient's physical condition. Such bedside ultrasound imaging is within the scope of practice of emergency physicians.

Therefore, the American College of Emergency Physicians (ACEP) endorses the following principles:

- Bedside ultrasound evaluation, including examination, interpretation, and equipment, should be immediately available 24 hours a day for ED patients.
- Emergency physicians providing emergency ultrasound services should possess appropriate training and hands-on experience to perform and interpret limited bedside ultrasound imaging.
- The use of ultrasound imaging by emergency physicians is appropriate in clinical situations that include, but are not limited to: thoracoabdominal trauma, ectopic pregnancy, abdominal aortic aneurysm, pericardial effusion, determining cardiac activity, biliary disease, renal tract disease, and procedures that would benefit from assistance of ultrasound.
- Emergency ultrasound procedures and interpretations are standard emergency physician skills that should be delineated in emergency physician privileges.
- Dedicated ultrasound equipment within the ED should be considered optimal for patient care.
- Each hospital medical staff should review and approve criteria for granting ultrasound privileges based on background and training for the use of ultrasound technology and ensure that these criteria are in accordance with recommended training and education standards developed by each physician's respective specialty.
- Training in performing and interpreting ultrasound imaging studies should be included in emergency medicine residency curricula.

- Continued research in the area of ultrasound should be encouraged.
- Emergency physicians should be appropriately reimbursed for providing emergency ultrasound procedures in the ED.

This policy statement was prepared by the Emergency Medicine Practice Committee. It was approved by the ACEP Board of Directors June 2001. It replaces one by the same title approve by the ACEP Board of Directors June 1997. The original policy statement titled "Use of Ultrasound for Emergency Department Patients" was approved by the ACEP Board of Directors January 1991.

most common procedure being taught, and most ultrasound instruction was offered by emergency medicine faculty.

### **Emergency ultrasound and the American Medical Association**

In 2000, general acceptance from the house of medicine for bedside ultrasound by emergency physicians occurred through resolutions by the American Medical Association (AMA) House of Delegates. In Substitute HOD-AMA Resolution 108—reimbursement for office-based or outpatient ultrasound imaging—they reaffirmed Policy H-230.960. This policy states the following:

1. AMA affirms that ultrasound imaging is within the scope of practice of appropriately trained physicians.
2. AMA policy on ultrasound acknowledges that broad and diverse use and application of ultrasound imaging technologies exist in practice.
3. AMA policy on ultrasound imaging affirms that privileging of the physician to perform ultrasound imaging procedures in a hospital setting should be a function of hospital medical staffs and should be specifically delineated on the department's Delineation of Privileges form.
4. AMA policy on ultrasound imaging states that each hospital medical staff should review and approve criteria for granting ultrasound privileges based on background and training for the use of ultrasound technology and strongly recommends that these criteria are in accordance with the recommended training and education standards developed by each physician's respective specialty.

In addition, Resolution 108 (1) calls for AMA policy to support reimbursement for ultrasound imaging performed by appropriately trained physicians in the office or other outpatient setting, including outpatient hospital settings such as the ED and obstetric units; (2) recognizes that

a physician is appropriately trained to perform ultrasound imaging in the office or other outpatient settings if that physician meets the training and education criteria for ultrasound imaging as determined by his specialty; and (3) asks that AMA notifies health insurers, managed care organizations, the Health Care Financing Administration, and other third-party payers of these policies and encourages them to modify their own coverage and payment policies to reimburse physicians for ultrasound imaging performed in the office or other outpatient setting.

### **American College of Emergency Physicians emergency ultrasound coding and reimbursement document**

The ACEP Ultrasound Section [7] has compiled a detailed reference document that explains the issues and facts related to appropriate emergency ultrasound procedure coding. Again, this document is required reading for ED managers and directors and those emergency physicians who perform ultrasound procedures in their daily practice. Tables 1 and 2 outline the primary clinical indications for emergency ultrasound, along with the appropriate corresponding current procedural terminology (CPT) codes. Other nonprimary uses of ultrasound in the ED (testicular torsion, deep venous thrombosis, musculoskeletal) and appropriate corresponding codes also are discussed in this document. The entire document can be downloaded for viewing from the ACEP Web site ([www.acep.org](http://www.acep.org)). The following is a list of general facts taken from the document:

- Almost all ultrasound procedures performed by emergency physicians are described by CPT.
- CPT coding is not specialty specific—that is, all physicians, regardless of specialty, must use the same CPT codes.
- CPT codes for ultrasound procedures typically are defined as “complete”; however, code definitions for “limited” studies exist.
- Emergency physician ultrasound procedures typically are “limited procedures” and focused to one anatomic region or a single problem.
- A “limited” code definition for transvaginal imaging does not exist. CPT code 76830 is considered a complete procedure. If used by an emergency physician when evaluating a focused problem (Fetal Heart Tones, gestation location, and so forth), 76830 should be adjusted by the addition of the appropriate CPT modifier (-52).
- CPT modifiers add more information to the code definition. A detailed list of modifiers can be found in the *Current Procedural Terminology Manual* [8]. Two common CPT modifiers are -26, the professional component modifier, and -52, the reduced service modifier. The professional component modifier (-26) denotes the physician’s professional service of interpretation of the ultrasound study in a separate and signed written document/report. Hospital-based emergency physicians should

Table 1

Summary of ultrasound procedures and related current procedural terminology codes

Clinical indication/application	CPT code	Code description
FAST examination to evaluate for hemoperitoneum	76705-26	Echography, abdominal, B-scan and/or real-time with image documentation limited (eg, single organ, quadrant, follow-up)
	+ 93308-26	+ Echography, transthoracic, real-time with image documentation (2-D) or without m-Mode recording, follow-up or limited
Evaluation of abdominal aorta (r/o Abdominal Aortic Aneurysm)	76775-26	Echography, retroperitoneal (eg, renal, aorta, nodes), B-scan and/or real-time with image documentation; limited
Evaluation of pericardial space (r/o effusion)	93308-26	Echography, transthoracic, real-time with image documentation (2-D) or without M-mode recording, follow-up or limited
Pregnancy state is known prior to study and ultrasound examination is utilized to determine status of the pregnancy or to evaluate for a pregnancy-related condition	76815-26	Echography, pregnant uterus, B-scan and/or real-time with image documentation; limited (fetal size, heart beat, placental location, fetal position), or emergency in delivery room
Pregnancy state not known prior to study or ultrasound is utilized to assess for a non-pregnancy-related pelvic condition	76857-26	Echography, pelvic (nonobstetric), B-scan, and/or real-time with image documentation; limited or follow-up
	and/or 76830-52, -26	and/or Echography, transvaginal
Evaluation of renal disease (ie, hydronephrosis, hydroureter, stone and so forth)	76775-26	Echography, retroperitoneal (eg, renal, aorta, nodes), B-scan and/or real-time with documentation; limited
Evaluation of biliary tract disease (ie, ductal dilatation, stones, signs of cholecystitis, and so forth)	76705-26	Echography, abdominal, B-scan and/or real-time with image documentation; limited (eg, single organ, quadrant, or follow-up)

*Abbreviations:* AAA, Abdominal Aortic Aneurysm; CPT, Current Procedural Terminology; 2-D, two-dimensional; FAST, Focused Assessment with Sonography for Trauma.

use the professional component modifier when using ultrasound CPT codes. It would be inappropriate to use global coding (reporting an unmodified code) because the emergency physician does not own and maintain the hospital ultrasound equipment. The reduced service modifier (-52) is used to denote a reduction in the service defined by

Table 2

Ultrasound procedure guidance and related current procedural terminology codes

Clinical indication/application	CPT code	Code description
Pericardiocentesis	76930-26	Ultrasonic guidance for pericardiocentesis, imaging supervision and interpretation
Vascular access	76937 <sup>a</sup>	Ultrasonic guidance for vascular access requiring ultrasound evaluation of potential access sites, documentation of selected vessel patency, and concurrent real-time ultrasound visualization of vascular needle entry, with permanent recording and reporting (list separately in addition to code for the primary procedure)
Ultrasound guidance for needle placement when performing paracentesis, thoracentesis, suprapubic aspiration, foreign body localization, location of abscess for drainage (eg, peritonsillar abscess)	76942-26	Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection localization, device imaging and supervision)

*Abbreviation:* CPT, current procedural terminology.

<sup>a</sup> New code in 2004.

the CPT code definition (as in the previous example with transvaginal echography).

- Medical necessity should be documented in the physician's procedure note, along with the procedure description and study findings.
- Appropriate International Classification of Diseases–9 coding of the medical record will support the medical necessity of ultrasound procedures.
- Emergency physician–performed ultrasound procedure notes should include the following:
  - A written interpretation and report for each procedure performed should be maintained in the patient's medical record
  - Documentation/indication of the medical necessity of the ultrasound procedure
  - A description of organs and structures studied and an interpretation of the ultrasound findings
  - Who specifically performed the procedure
  - Documentation of the scope of the study (complete versus limited, repeat by same physician or different physician, reduced level of service)
- Image retention is necessary when the hospital bills the technical component of the ultrasound procedure.
- Under CPT, image archiving by the physician is not required if the professional component modifier (-26) is coded alone.



- Medicare policy regarding documentation requirements and image retention is variable between carrier jurisdictions. Emergency physicians should consult the Centers for Medicare and Medicaid Services-sponsored Local Medical Review Policies Web site ([www.lmrp.net](http://www.lmrp.net)) to determine the policies specific to the Medicare carrier in their practice location.

Emergency physicians are advised to review this document carefully with their billing manager to ensure that their work and the procedures they perform are documented and coded appropriately for claims submission.

### **2004 Current procedural terminology coding updates**

A new CPT code—76937—has been developed to report ultrasound guidance for vascular access [9]. It is assumed that the same physician who performs the guidance procedure and the line placement procedure will report both of the codes describing the services performed. Use of code 76937 includes ultrasound imaging for preaccess assessment of venous site patency and the real-time guidance of the needle into the vein lumen. Reporting of code 76937 requires

1. Preaccess vein assessment with ultrasound imaging
2. Permanent image recording of sites examined/site chosen for use in line placement
3. Guidance procedure: real-time visualization with ultrasound as the needle is advanced into selected vein
4. Permanent recording showing the needle entering the vein lumen
5. Written/typed description of the preaccess assessment and the guidance procedure included in the patient medical record, along with the previously designated images

Code 76937 should not be reported in the situation in which ultrasound is used only to locate a vein and mark a skin entry site. Such nonguided procedures do not meet the definition of 76937.

### **References**

- [1] Hockberger RS, Binder LS, Graber MA, et al. Model of the clinical practice of emergency medicine. *Ann Emerg Med* 2001;37(6):745–70.
- [2] Counselman FL, Sanders A, Slovis CM, et al. The status of bedside ultrasonography training in emergency medicine residency programs. *Acad Emerg Med* 2003;10(1):37–42.
- [3] American College of Emergency Physicians. Use of ultrasound imaging by emergency physicians. Policy 400121. Available at: [www.acep.org](http://www.acep.org). Accessed May 8th 2004.
- [4] American College of Emergency Physicians. Emergency Ultrasound Guidelines 2001. Available at: [www.acep.org](http://www.acep.org). Accessed May 8th 2004.
- [5] Mateer J, Plummer D, Heller M, et al. Model curriculum for physician training in emergency ultrasonography. *Ann Emerg Med* 1994;23:95–102.

- [6] Heller MB, Mandavia D, Tayal VS, et al. Residency training in emergency ultrasound: fulfilling the mandate. *Acad Emerg Med* 2002;9(8):835–9.
- [7] American College of Emergency Physicians. Emergency ultrasound coding and reimbursement. Available at: [www.acep.org](http://www.acep.org). Accessed May 8th 2004.
- [8] American Medical Association. Current procedural terminology 2001. Available at: [www.ama-assn.org](http://www.ama-assn.org). Accessed May 8th 2004.
- [9] American Medical Association. Current procedural terminology changes 2004—an insider's view. Available at: [www.ama-assn.org](http://www.ama-assn.org). Accessed May 8th 2004.