

System Wide Clinical Ultrasound Program Development

Section 5: Credentialing, Competency, QA

(#NAME) Health System Clinical Ultrasound (CUS) Competency and Credentialing Policy

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Clinical Ultrasonography is defined as a diagnostic modality that provides clinically significant data not obtainable by components of the physical exam and as a distinct clinical modality and not an adjunct to or extension of the physical exam.¹ Emergency Ultrasound is the medical use of ultrasound (US) technology for the bedside evaluation of acute or critical medical conditions.² Emergency Ultrasound is synonymous with the terms clinical, bedside, point-of-care, focused, and physician performed, but is part of a larger field of clinical ultrasonography.² Clinical ultrasonography refers to a multidisciplinary field of US use by clinicians at the point-of-care.²

Clinical ultrasonography may be utilized for diagnosis of any emergency condition, resuscitation of the acutely ill, critically ill or injured, guidance of procedures, monitoring of certain pathologic states and as an adjunct to therapy.² Clinical Ultrasounds are typically performed, interpreted, and integrated into care by physicians or those under the supervision of physicians trained and credentialed in Clinical Ultrasonography.² Clinical Ultrasounds are performed in a variety of settings including but not limited to: the emergency department, hospital unit, operating room, out-of-hospital, battlefield space, urgent care, clinic, or remote or other settings.² Clinical Ultrasounds may be performed as a single examination, repeated due to clinical need or deterioration, or used for monitoring of physiologic or pathologic changes.²

Various specialties that utilize focused CUS such as Emergency Medicine, Critical Care Medicine, Ob-Gyn, Sports Medicine, and Rheumatology (for musculoskeletal ultrasound) have established policies for training, competency assessment and credentialing of staff and fellows.²⁻⁸ Although comprehensive, these policies are specific to their **individual** specialty or department and cannot be extrapolated to a large health care system across multiple specialties using CUS over a wide range of applications.

The following policy is intended to span three distinct areas of CUS competency to ultimately lead to appropriate clinical privileging:

1. Allow physicians who did not complete a specialty training program incorporating CUS a pathway to develop competency in CUS ultimately leading to clinical privileging;
2. Provide a pathway for selected physicians to gain CUS competency to supplement procedural guidance (CVP catheter placement, paracentesis, thoracentesis, lumbar puncture, etc.)
3. Provide a guide for physicians previously trained or credentialed in CUS.

The proposed pathway is not intended to replace well established existing policies and procedures for training and credentialing physicians in traditional diagnostic ultrasound including those who are resident and/or fellowship trained (eg, echocardiography by Cardiology, diagnostic ultrasound by Radiology). This credentialing and competency policy does not pertain to previously board certified imaging specialists such as board certified radiologists or cardiologists/physicians board certified in echocardiography. Previously established institutional credentialing policy and society guidelines pertaining to the credentialing of board-certified imaging specialists is not covered under this policy.

A physician who would like to utilize this pathway will be required to submit a formal request in writing to their local department director/service line chief. The Service Line Chief may either reject the application or forward it to the System Credentials Committee and System Clinical Ultrasound director for review and approval. If approved, the applicant may then work with the local departmental leader in CUS and the System CUS director to complete the requirements outlined below.

This institutional policy will help enable physicians utilizing CUS to attain competency and credentialing regardless of specialty or clinical campus in a large multihospital health system and maintain compliance with the American Medical Association (AMA) Privileging for Ultrasound Imaging Resolution H 230.960.⁸

I. Basic Requirements for CUS

- A. Knowledge of Basic Ultrasound Physics
- B. Operation of Basic Machine Controls (ie, depth, zoom, gain, focus, image capture)
- C. Image Optimization
- D. Knowledge of relevant normal and abnormal sonographic anatomy and physiology
- E. Biosafety
- F. Understanding specialty-specific scope of CUS applications and limitations

II. Definition of Credentialing, Official and Consultative Ultrasound

- A. A **Credentialing CUS** is defined as a CUS performed to attain competency that leads to privileging once a requisite number have been obtained. A credentialing ultrasound must meet the following requirements (**adapted from 6**).
 - i. Supervision may be direct or indirect. **Direct supervision** requires “real time” supervision of scanning technique and image interpretation at the bedside by a previously credentialed CUS sonologist or by a relevant qualified imaging specialist such as an echocardiographer or radiologist. It is understood that if the CUS exam is done under direct supervision of a credentialed CUS sonologist, it may also qualify as an official CUS exam (see section B under Official Ultrasound). **Indirect supervision** depends upon subsequent image review by a previously credentialed CUS sonologist or by a qualified imaging specialist such as an echocardiographer or radiologist. CUS exams obtained under **Indirect supervision** are **not** to be used for medical decision making and must be compared to follow-up “gold standard” images as described in section **iv** below to be counted as a credentialing CUS.
 - ii. All credentialing CUS **procedural** exams must be performed under **Direct Supervision**. This pertains to procedures such as but not limited to; ultrasound guided vascular access placement, thoracentesis, paracentesis, arthrocentesis, pericardiocentesis, abscess drainage, foreign body removal and lumbar puncture.

- iii. The acquired ultrasound images will be archived with the sonologist's interpretation and marked as a credentialing ultrasound. Documentation will be entered in the patient's electronic medical record that a credentialing ultrasound was performed. If the credentialing ultrasound is performed under the supervision of a credentialed sonologist or imaging specialist, the documentation in the medical record will include both a clinical report and an indication of the trainee and the supervising persons. For example the documentation may state, "*Credentialing focused clinical ultrasound performed by _____. The findings were _____. A follow-up _____ was ordered.*"⁶
- iv. CUS exams, when compared to other forms of imaging study, will be assessed for adequacy and accuracy using the benchmarks for that CUS exam established by the specialty. CUS exams will be compared to follow-up images such as but not limited to; formal ultrasound, CT scan or MRI to assess for accuracy when done with indirect supervision.
- v. Credentialing CUS exams will only be performed in patients with clinical indications. At least 10 % of credentialing CUS exams must show **abnormal** pathology. Patients with no clear indication for ultrasound exam will be ineligible. Confirmatory imaging* studies **cannot** be done for the sole purpose of confirming a credentialing ultrasound, nor should a non-CUS imaging study already ordered be delayed to obtain a credentialing CUS.
- vi. Credentialing ultrasounds are meant solely for credentialing purposes and will not be used to make clinical decisions, unless performed with direct supervision for medical care (meet criteria for Official CUS in section B below). Ultrasounds, which include simulation and cadavers, may be used to augment the sonographer's knowledge and technical skills. As many as 1/4 of credentialing ultrasounds may be achieved in this manner.
- vii. All patients will be informed that the credentialing CUS exam is not a traditional radiologic ultrasound and that no billing or medical decisions will occur based on the CUS exam (unless meets criteria for Official CUS in section B below). A **consultative**

ultrasound* or other form of confirmatory imaging will be obtained if necessary for patient care and medical decisional making. Verbal consent should be obtained if clinical status allows in the following format: *“Hello, I am part of the ultrasound team here in the _____ department. I would like to perform a credentialing/educational ultrasound study. It will be a part of your medical record but is not intended to affect your medical care. If I do find something abnormal I will let you and your doctor know and we will further evaluate the finding. This study will be followed up by a confirmatory _____. Do you have any questions?”*

- B. An **Official CUS** is defined as a CUS that is performed by a credentialed CUS sonologist. An example of this would be an Emergency Ultrasound performed and interpreted by the provider as an emergency procedure and directly integrated into the care of the patient.² In order to qualify for an official ultrasound **all** of the following criteria must be met:
- i. The CUS must be done on actual patients with clear and appropriate indications for CUS.
 - ii. The official CUS must be archived in the applicable image storage system (PACS, Xcelera, Qpath).
 - iii. A documented report must be placed in the Electronic Medical Record and fulfill the following six elements:
 1. CUS sonographer’s name and date of service
 2. Patient name and MRN
 3. Indication
 4. Identified structures
 5. Findings
 6. Interpretation
 - iv. CUS will be assessed by QA/QI review in accordance with hospital policies.
- C. *A **Consultative Ultrasound** is defined as a written or electronic request for an US examination and interpretation for which the patient is transported to a laboratory or imaging department outside of the clinical setting.² This is an ultrasound performed by a qualified sonologist or as an ultrasound performed by a qualified technician and interpreted

by a board-certified imaging specialist. The CUS Quality Control program will use consultative ultrasounds as a standard for comparison to assess accuracy of the CUS sonographer whenever available. *

III. Ultrasound requirements for Physicians with previous training in CUS during residency/fellowship/previously credentialed in CUS.

- A. Be in good professional standing within their respective service line;
- B. Be in good professional standing with ongoing relevant specialty-specific CME requirements;
- C. Letter from Program Director (if applicable) documenting the completion of all specialty-specific CUS requirements (eg, 150 ultrasounds in the respective areas for Emergency Medicine) or copy of previous formal credentialing (e.g. logs and criteria where appropriate.)

Copy of CUS log completed during residency/fellowship training to be reviewed by the System CUS director in conjunction with the System Credentialing Committee. The System CUS director and System Credentialing Committee will review **A-C** for completeness and will endorse or reject the request for credentialing privileging in CUS.

- D. All ultrasounds performed thereafter will meet the institution's requirements for an **Official CUS**.
- E. A provider may be credentialed and privileged for a specific scope of Clinical Ultrasound, for example Emergency Ultrasound. If the provider has not demonstrated prior competency in one of the defined core applications during training or has never performed a specific exam during training (ocular or pelvic ultrasound for emergency ultrasound), the provider will be required to perform 5 accurate exams to demonstrate competency. When new core applications are added per specialty specific guidelines, providers should request an addition to their core clinical ultrasound privileging. This will be reviewed by the System Wide Clinical Ultrasound Director and the Credentialing Committee.

- F. Ongoing CUS privileging requires continued accuracy. CUS exams will be reviewed by an established QI/QA program. If reviewed CUS exams do not meet specialty-specific quality standards, additional training/education/mentoring may be required at the discretion of the service line director or system director of ultrasound.⁶
- G. To maintain credentialing, it is encouraged that a physician attend Ultrasound related CME in accordance with specialty guidelines with a minimum of 5 hours of continuing medical educational credits pertaining to ultrasound activities per credentialing cycle.³

IV. Ultrasound requirements for Physicians with minimal or no previous CUS training.

- A. Be in good professional standing within their respective service line.
- B. Submit a formal request in writing to their service line leader requesting the addition of CUS privileges.
- C. 20 hours of dedicated US instruction which may consist of Society/Organization endorsed/approved CME or institutional approved CUS training/CME
- D. Accrue and log **credentialing** ultrasounds spanning the scope of specialty-specific guidelines for CUS. Accrued ultrasounds should be only within the scope of the specific ultrasound privilege requested (i.e. obtaining abdominal ultrasounds to be credentialed for abdominal ultrasound will not qualify a physician for pelvic ultrasound). If there are no specialty specific guidelines, 150 credentialing ultrasounds are currently recommended. At a minimum, 50% of the credentialing ultrasounds must be assessed for accuracy by Direct Supervision.
- E. The System CUS director and System Credentialing Committee will review **A-D** for completeness. An applicant who successfully completes this pathway will need to submit written confirmation of completion along with letters of attestation from the appropriate supervising physicians to the System Credentials Committee and System Clinical Ultrasound Director. If all is in order, the physician may then submit a request for clinical privileges in

the CUS technology in which they trained. Processing of these requests will be processed in the usual manner.

- F. Ongoing CUS privileging requires continued accuracy. CUS exams will be reviewed by an established QI/QA program. If reviewed CUS exams do not meet specialty-specific quality standards, additional training/education/mentoring may be required at the discretion of the departmental or system director of ultrasound.⁶
- G. To maintain credentialing, it is encouraged that a physician attend Ultrasound related CME in accordance with specialty guidelines with a minimum of 5 hours of continuing medical educational credits pertaining to ultrasound activities per credentialing cycle.³
- H. These provisions do not apply to those physicians and advance practitioners (AP) who already are credentialed for these procedures at the time of implementation of this policy.

V. Ultrasound Assisted Procedural Guidance requirements for Clinicians with minimal or no previous ultrasound procedural training.

- A. Clinicians must have previously met the established institutional credentialing and competency requirements for the procedure requested (eg, Central Line, Paracentesis, Thoracentesis, Lumbar Puncture.)
- B. Be in good professional standing within their respective service line.
- C. Submit a formal request in writing to their service line leader requesting the addition of Ultrasound Assisted Procedural Guidance to the respective procedure (eg, Ultrasound Guided Paracentesis).
- D. Complete comprehensive education involving didactic lectures, live or simulated demonstrations, and mentoring by a skilled sonographer with respect to the Ultrasound Guidance portion of the procedure.⁹
- E. Perform a minimum of **ten** procedures under Ultrasound Guidance and supervised **directly** by an experienced/previously credentialed user.⁹

- F. The System CUS director and System Credentialing Committee will review **A-E** for completeness. An applicant who successfully completes this pathway will need to submit written confirmation of completion along with letters of attestation from the appropriate supervising physicians to the System Credentials Committee and System Clinical Ultrasound Director. If all is in order, the physician may then submit a request for clinical privileging in Ultrasound Assisted Procedural Guidance with respect to the requested procedure. Processing of these requests will be processed in the usual manner.
- G. Ongoing CUS privileging requires continued accuracy. CUS exams will be reviewed by an established QI/QA program. If reviewed CUS exams do not meet specialty-specific quality standards, additional training/education/mentoring may be required at the discretion of the service line chair, departmental ultrasound director or system CUS director.⁶
- H. These provisions do not apply to those physicians and advance practitioners (AP) who already are credentialed for these procedures at the time of implementation of this policy.

VI Ultrasound requirements for renewal of existing Clinical Privileges obtained through this process

- A. Be in good professional standing within their respective service line.
- B. Be in good professional standing with ongoing relevant specialty specific CME requirements
- C. Current Clinical Competency as determined by relevant specialty societies (ABIM, ABEM, ACC, AHA, ABR, etc., and/or regulatory agencies) for ultrasound privileges obtained under this policy will be assessed for adequacy on a case-by-case basis at the time of reappointment by the System Director of Clinical US. Failure to fulfill the necessary current clinical competency may result in:
 - 1. The applicant's Clinical US privileges being conditioned, or;
 - 2. The applicant being ineligible for reappointment (NOTE: this is NOT a denial of privileges and is NOT reportable to the National Practitioner Data Bank (NPDB.)

References

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2. American College of Emergency Physicians. Ultrasound guidelines: Emergency, point-of-care, and clinical ultrasound guidelines in medicine. [policy statement]. <https://www.acep.org/patient-care/policy-statements/ultrasound-guidelines-emergency-point-of--care-and-clinical-ultrasound-guidelines-in-medicine/> Accessed 8.21.19
3. Musculoskeletal Ultrasound Certification in Rheumatology—RhMSUS™: <http://www.rheumatology.org/Education/Rhmsus/Welcome/> (Accessed 8.22.19)
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6. Pustavoitau A, Blaivas M, et al. Recommendations for Achieving and Maintaining Competence and Credentialing in Critical Care Ultrasound with Focused Cardiac Ultrasound and Advanced Critical Care Echocardiography. Official Statement of the Society of Critical Care Medicine. <https://sccm.org/Communications/Critical-Connections/Archives/2017/Bedside-Ultrasonography-Guidelines-for-Critically> (Accessed 8.21.19)
7. American Medical Association (AMA) Privileging for ultrasound imaging Resolution H 230.960 <https://policysearch.ama-assn.org/policyfinder/detail/Ultrasound%20imaging?uri=%2FAMADoc%2FHOD.xml-0-1591.xml> (Accessed 8.22.19)
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