

Continuous Quality Management

Purpose:

To standardize the evaluation of clinical ultrasound scans for technical competence, study interpretation accuracy and provide performance feedback to clinicians.

Data Storage:

- All clinical ultrasound studies performed on Emergency Department (ED) ultrasound systems are linked to Qpath™ ultrasound workflow software
- Completed ultrasound studies are automatically uploaded to QPath™ and are permanently stored in a dedicated location on the hospital's server
- Studies are also temporarily stored on the performing ultrasound machine
- The ED manages five Sonosite X-Porte™ systems whose local memory is cleared periodically depending on capacity

Clinician Feedback:

- A formalized quality assurance (QA) process designed in Qpath™ is directed towards image quality and clinical interpretation and allows for direct feedback emailed to provider
- The Director of Ultrasound reviews scans and provides monthly QA
- All educational scans by non-credentialed clinicians are reviewed with QA
- All scans submitted from new clinical faculty are reviewed with QA for their first three months of clinical practice to promote adherence with departmental standard operating procedures and to ensure continued demonstration of clinician competence.
- At least ten percent of credentialed clinician's scans are reviewed with QA
- Director of Ultrasound has discretion to review all scans of any credentialed provider if appropriate or if requested by a credentialed physician
- Direct communication to be made with clinician if gross inadequacies are found in image quality or if an inappropriate clinical interpretation is identified

Callback Procedure:

- Clinical ultrasounds performed in the Emergency Department that directly impact patient care are performed or interpreted by credentialed faculty at the time the scan is performed
- If any false or inappropriate interpretation is identified during scan review that has potential clinical significance (inappropriate and of clinical significance), all efforts will be made to contact the patient to inform them and an addendum is made to the patient's medical record to reflect context and findings
- Providing physicians to be informed of these call back cases with appropriate counseling and training provided
- Callback cases are submitted to departmental formal peer review process

Future Considerations:

- When our emergency medicine residency program initiates in July 2021, the QA process will be performed in a technically similar fashion, however QA will be performed with increased frequency on a weekly basis in an educational environment to facilitate resident education and engagement to ensure clinical ultrasound competence upon residency completion
- Residents will be required to attend weekly QA ultrasound image review sessions on their ultrasound rotations and all faculty are invited to attend
- These image review sessions will provide a mechanism for closed loop resident feedback for education scans performed in the department not under direct supervision by credentialed faculty