

Competency Form Instructions

UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES
COLLEGE OF HEALTH RELATED PROFESSIONS - DEPARTMENT of RADIOLOGIC TECHNOLOGY
DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM
Student Competency Evaluation ©2000

In order to demonstrate competency each Diagnostic Medical Sonography student must successfully complete a series of examinations under the observation and evaluation of an ARDMS Registered Clinical Instructor or the DMS Program Faculty. The student is expected to perform the complete examination, to include all the tasks listed on the evaluation form. The student will not be expected to complete an examination until the student has received appropriate instruction.

The sonographic examinations for which the student will be required to demonstrate competency are:

Abdominal: Gallbladder, Liver, Renal, Pancreas, Aorta, and Spleen

Superficial Parts: Thyroid, Testicular, and Breast

Obstetric: 2nd or 3rd Trimester

Gynecologic: Female Pelvis (Non-Pregnant): Transabdominal & Endovaginal

Invasive Procedures: One of the Following: Amniocentesis, Thoracentesis, Paracentesis, Biopsy, Intraoperative, Shunt/Catheter/Central Line Placement

- **Note:** The Invasive Procedures Evaluation must be a procedure performed with ultrasound guidance utilizing sterile techniques. The sonographer must assist the physician.

Vascular: Upper Extremity Venous Doppler, Upper Extremity Arterial Doppler, Lower Extremity Segmental Pressures with ABI Calculation, Lower Extremity Venous Doppler, Lower Extremity Arterial Doppler, Carotid Doppler With Pathology, Vertebral Artery Doppler, Transcranial Doppler, Plethysmographic Procedure (PPG, VPG, SPG)

Echocardiography: Parasternal Long Axis View, Parasternal Short Axis View, Apical View, Subcostal View, and Suprasternal View

The student is responsible for determining when he or she is ready to show competency for an examination by informing the Clinical Instructor or the DMS Faculty. The student will prepare an evaluation form and provide it to the observer. The student selects the patient on whom he or she wishes to show competency. If a specific competency is unsatisfactory the student must repeat the examination with another patient. A student will not satisfy competency for an examination type if the student receives a single score of one (1) for any task, or scores of two (2) for any four tasks.

The following information is provided to assist the observer in evaluating each task. While all tasks should be evaluated, it is recognized that examination types may require variations in the sequence and performance of tasks.

Difficulty of Case:

The observer (Clinical Instructor or DMS Faculty) will evaluate the difficulty of the patient selected for the competency examination. The level of difficulty will be a factor in the scoring of the evaluation. Considerations for the level of difficulty are body habitus, patient cooperation, or unexpected situations such as surgical changes to the normal or anomalous anatomy (including sutures, wounds, and bandages). There are five levels of difficulty with 1 being easy, and 5 being the most difficult. Three (3) is a medium or average patient for the type of examination being performed. The difficulty can be used by the Program Director to determine the final score; therefore if the student selects a very difficult patient the student may receive a higher score than if the student selected a very easy patient.

Tasks:

1. Room properly prepared before bringing in the patient.

The student is expected to have the examination room prepared with clean linen on the examination table. Tools, charts, or materials normally required for the examination should be in the room and readily available.

2. Patient properly identified and student identified him or herself to the patient.

The student is expected to greet the patient by name (Mr., Mrs., etc) and introduce his/her self to the patient and inform the patient that he/she will be performing the sonographic examination.

3. Correct transducer selected for the examination.

The student is expected to select the proper transducer for the examination. Transducer selection includes choosing an alternative transducer to complete the examination, depending upon the requirements to achieve the diagnosis.

Competency Form Instructions

4. Patient information correctly entered before starting examination.

The student is expected to enter examination information into the sonographic machine, any patient tracking computer system, or paper forms according to the clinic's protocol.

5. Proper patient history obtained

The student is expected to request the pertinent patient history and record it according to the clinic's protocol.

6. Patient informed of the nature of the procedure.

The student is expected to discuss the procedure with the patient and answer questions relevant to the examination. The student is expected to present this conversation with a professional attitude without issuing a diagnosis.

7. Patient in correct position for the procedure.

The student is expected to instruct and assist the patient onto the examination table in a professional, courteous manner. The patient should be in the proper position to begin the examination and the patient's position should be changed as required as the examination proceeds.

8. Correct gain and machine settings used.

The student is expected to select and adjust the sonographic machine settings as required to produce a diagnostic examination.

9. Correct focal range(s) and fields of view selected.

The student is expected to change the focal range and field of view as required demonstrating anatomy and pathology in sufficient detail for a diagnosis to be made.

10. Images labeled correctly.

The student is expected to label anatomy and the images according to the clinic's protocol.

11. Correct image planes obtained.

The student is expected to obtain and record all image planes to document the examination. The images recorded should be in accordance with the SDMS standards and the clinic's protocol.

12. Sufficient images recorded to demonstrate appropriate anatomy.

The student is expected to record images according to the clinic's protocol. The student should also include any additional images, which are necessary to document and allow an accurate diagnosis.

13. Correct use of pre- & post-processing controls.

The student is expected to use all pre- and post-processing controls in order to optimize the sonographic images.

14. Correct sonographic diagnosis/differentials/pathology proposed.

The student is expected to be able to discuss the diagnosis with the clinical instructor and physician, and propose appropriate differential diagnoses.

15. All measurements are taken accurately properly.

The student is expected to accurately measure and record all organs, tissues, and masses to document normal and abnormal anatomy.

16. Images properly recorded and processed.

The student is expected to record and process all images using the equipment provided by the clinic. This process must be accomplished according to the clinic's protocol.

17. Exam completed in a timely fashion.

The student is expected to complete the examination in an acceptable amount of time. It is recognized that more difficult patients may require more time.

18. Paper work completed according to the laboratory's routine.

The student is expected to complete all clinical records and paper work according to the clinic's protocols. This task is to be done in a timely fashion, secondary only to the needs of the patient(s) and/or staff.

19. Case discussed properly with the instructor/physician.

The student is expected to discuss the case with the clinical instructor and/or the diagnosing physician. The student must be prepared to discuss and explain the images recorded, any artifacts, anatomy, measurements, and relevant patient history.

20. Patient properly released when the examination is completed.

The student is expected to inform the patient when the examination is completed, assist the patient in any way necessary with cleaning-up, dressing, and leaving the examination area.