Educational Purpose of the Rotation

The echocardiography rotation permits the sub-specialty fellows to perform "hands on" echocardiographic studies. Under the direction of attending physicians and an echocardiographic technologist the fellow is provided with the tools and expertise to perform echocardiographic studies independently. This rotation usually occurs early on in the training cycle to permit the fellow the opportunity to perform studies and gain confidence in reading studies as well.

This is a required rotation and generally sub-specialty fellows are provided with one rotation block during their three-year educational experience. These rotations, coupled with the TEE experience, permit them to perform (hands-on) and interpret a minimum of 150 echocardiographic studies during their training period.

Rotation Attendings

George Abela MD Sonali Arora DO Appa Bandi MD Thomas Brown DO Nam Cho DO Joel Cohn MD Christopher D'Haem DO Gaurav Dhar MD Carlos Fernandez DO Richard Pinke DO Todd Hickox DO Joni Summit DO Ranjan Thakur MD Ronald Voice MD Chad Link DO Daryl Melvin MD James Schafer MD Mathew Wilcox DO Peter Yoo MD

This rotation occurs at Michigan State University, Sparrow Health System, and Thoracic and Cardiovascular Institute. Sub-specialty fellows assigned to this rotation work with both echocardiographic technologists and attending physicians. The echocardiographic technologists are the key to learning the "hands-on" aspects of performing the studies and the attending physicians provide the interpretation and educational expertise for echocardiographic reading.

Resources

All of the listed institutions are equipped with modern, up to date, echocardiographic equipment. In addition, there are reading stations where sub-specialty fellows are expected to sit with the attending physicians to review, discuss, and dictate the final reports. Given the variety of locations, it is important to note that the sub-specialty fellows have access to several different brands of echocardiographic machines, technical approaches (views), and pathologies.

Responsibilities

The expectations and responsibilities of this rotation apply to all sub-specialty fellows (this is a required rotation):

- 1. Participate in echocardiographic testing with "hands on" experiences with echocardiographic technologists.
- 2. Participate in reading, discussing, and completion of reports of testing with attending physicians.
- 3. Work effectively and actively participate with all members of the team including the echocardiographic technologist, attending physician, nurses, and other health care personnel.

Objectives

By the conclusion of the training program the sub-specialty fellow will have completed one to two rotations in Echocardiographic Imaging. The sub-specialty fellow will:

- 1. Demonstrate a proficiency in obtaining echocardiographic views sufficient to diagnose common cardiac conditions (pericardial effusions, cardiac tamponade, etc.).
- 2. Demonstrate proficiency in interpretation and dictation of echocardiographic studies (under the direction of the attending physician).
- 3. Demonstrate the ability to appropriately recommend clinical management guidelines based on echocardiographic findings.
- 4. Recognition of abnormal results requiring immediate or urgent intervention and ability to contact the appropriate personnel (referring physician, attending physician, etc.) to initiate action.
- 5. Demonstrate proficiency in appropriate request for studies including echocardiography, stress echocardiography, dobutamine echocardiography, and the utilization of contrast agent for image enhancement.

Instructional Methods

Attending physicians and echocardiographic technologists participating in this rotation will:

- 1. Supervise and instruct the sub-specialty fellows in accordance with the supervision policy.
- 2. Provide an atmosphere allowing for responsible patient care while encouraging sub-specialty fellows to assume more responsibility as skill levels progress.
- 3. Provide sub-specialty fellows with ongoing feedback regarding the progression of skills.
- 4. Provide structured teaching opportunities including appropriate literature references/citations for review and discussion.

Evaluation Process

At the conclusion of each rotation:

- 1. Attending physicians and echocardiographic technologists will summarize and accurately describe the subspecialty fellow's performance on the provided evaluation form. The evaluator will discuss review this evaluation with the sub-specialty fellow and both will sign their acknowledgment and return the form to the program office for review and inclusion in the sub-specialty fellows overall bi-annual evaluation.
- 2. The sub-specialty fellow will summarize and accurately evaluate the faculty performance, technical training and overall rotation on the form provided and return it to the program office where it is tabulated and, to protect anonymity, destroyed after tabulation.

Readings: As assigned.

Schedule: Please refer to the master sub-specialty fellow schedule.

Competency Level: Completion of all Echocardiography and Non-Invasive Rotations would permit the Subspecialty fellow to qualify for Level 2 competency under COCATS 4 Guidelines. A log must be kept on all echo procedures done.