THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

The Ohio State University Medical Center, Division of Cardiovascular Medicine
Outpatient Cardiovascular Imaging Rotation at Stoneridge (Dublin, OH):
Fellowship Training Guidelines and Clinical Responsibilities

General Information

Duration of rotation: Four weeks
Location to report on 1st day: 3900 Stoneridge Ln, Dublin, OH 43017

The elective rotation at the outpatient cardiovascular imaging site, Stoneridge, is for upper level (second and third year) fellows. It allows the fellow the ability to observe, perform, and interpret transthoracic echocardiograms, stress echocardiograms, treadmill ECG stress tests, and nuclear myocardial perfusion stress tests. Only one fellow is on this rotation at any one time, allowing one-on-one interaction with the faculty and the ability for the fellow to focus on their interests and deficiencies. A fellow is eligible to rotate on this service when they have a basic understanding of echocardiography, exercise stress testing, and nuclear stress testing obtained during the first year of training.

Recommended Reading:

Textbooks:

1. Clinical Gated Cardiac SPECT, Edition 2 by Guido Germano and Daniel Berman
2. Stress testing: Principles and Practice Fifth Edition by Myrvin Ellestad
3. Fundamentals of Nuclear Pharmacy by Gopal B.Saha
4. Feigenbaum's Echocardiography

Web-based:

1. The American Society of Nuclear Cardiology – www.asnc.org.
2. The American College of Cardiology – www.cardiosource.com.
3. Nuclear medicine information, cardiology section-www.nucmedinfo.com/
4. American Society of Echocardiography, www.asecho.org

Teaching Methods:

1. Imaging Conferences.
    a. Didactic topics in nuclear cardiology and echocardiography.
    b. Case-based discussions.
2. Clinical teaching.
3. Individual performance, interpretation of studies.
4. Faculty mentorship.
5. Fellow-directed supplemental reading.

Second Year Fellow in Cardiovascular Medicine:

Overall Focus: Stress/rest SPECT, TTE, stress echo
Number of months: 0-2
Objectives:

1. Become familiar with operations of nuclear stress lab and stress echo lab in an outpatient setting.
2. Increase knowledge base on physics of radionuclides and echocardiograpy.
3. Understand indications and published guidelines for ordering a stress SPECT study and a stress echo.
4. Learn standard format for typical SPECT and blood pool studies.
5. Continue to develop SPECT and echo interpretation skills with staff guidance.
6. Develop capabilities for interpretation and supervision of exercise testing, stress echo, and pharmacologic stress testing.

Mandatory Reading:

1. Introductory and appropriate chapters in textbooks listed above.
2. Review of pertinent resources on websites listed above.

Clinical Responsibilities:

1. Develop daily schedule that allows for:
    a. Supervision of and participation in nuclear stress studies in conjunction with qualified laboratory personnel.
    b. Processing of acquired imaging data.
    c. Supervision of and interpretation of stress echoes. This includes being in the exercise room to supervise the stress portion and monitor the ECG and blood pressure.
    d. Perform surface echoes with the sonographer, as schedule allows.
2. Perform and interpret TTE, stress echo, stress ECG's, SPECT and RNA scans, providing preliminary interpretation to be discussed with attending staff.

<u>Third Year Fellow in Cardiovascular Medicine:</u>

Overall Focus: SPECT interpretation, training regarding the safe and appropriate use of diagnostic radioactive materials, stress echocardiography performance and interpretation

Number of months: 0-1

Objectives:

1. Continued development towards an expert in SPECT and blood pool image interpretation skills, including incorporation of computer methods for analysis.
2. Continued development towards an expert in stress echo and surface echo.

Mandatory Reading:

1. Specialized, diagnosis-specific chapters in textbooks listed above, or equivalent, to include appropriate reading on radiation physics.
2. American Society of Nuclear Cardiology guidelines and statements.
3. American Society of Echocardiography guidelines and statements.

Clinical Responsibilities:

1. Develop daily schedule that allows for:
    a. Supervision of and participation in nuclear stress studies in conjunction with qualified laboratory personnel.
    b. Processing of acquired imaging data.

c. Supervision of and interpretation of stress echoes. This includes being in the exercise room to supervise the stress portion and monitor the ECG and blood pressure.
d. Perform surface echoes with the sonographer, as schedule allows.

2. Perform and interpret TTE, stress echo, stress ECG's, SPECT and RNA scans, providing preliminary interpretation to be discussed with attending staff.

Evaluation:
Fellows will be assessed and evaluated by the faculty, based on the 6 core competencies and associated Milestones. Examples are listed below:

Competencies	Milestones
Patient Care	▪ Demonstrates skill in performing and interpreting non-invasive procedures and/or testing
Medical Knowledge	▪ Possesses clinical knowledge ▪ Knowledge of diagnostic testing and procedures
Systems-Based Practice	▪ Recognizes system error and advocates for system improvement ▪ Transitions patients effectively within and across health delivery systems
Practice-Based Learning and Improvement	▪ Learns and improves via feedback
Professionalism	▪ Accepts responsibility and follows through on tasks ▪ Exhibits integrity and ethical behavior in professional conduct