

VA Outpatient Cardiology

Purpose:

This rotation provides exposure to general cardiology in an outpatient setting. The PURPOSE of this rotation is to acquire expertise and proficiency in the management of outpatient cardiovascular issues in a patient population with common cardiovascular diseases like coronary artery disease, valvular heart disease, peripheral vascular disease, heart failure, arrhythmias and preoperative evaluation. Fellows will gain experience in ECG interpretation, performance and interpretation of exercise and pharmacological stress testing, and performance and interpretation of transthoracic echocardiograms. Fellows will also perform transesophageal echocardiograms and elective cardio versions.

Responsibility/Specific Duties:

The fellow has primary responsibility for all patients referred to the service, under the supervision of one faculty member dedicated to this rotation. This rotation also provides the opportunity and time to acquire expertise in nuclear cardiology (haft day every Wednesday and Friday mornings, with one fellows doing a full day of clinic on Wednesday and Friday's) on studies performed at the VA and basic training in cardiac CT.

When responding to a request for consultation the trainee is expected to provide comprehensive evaluation of the patient's cardiovascular illness in a prompt and concise manner, formulate a prioritized differential diagnosis, and outline the evaluation. The trainee is expected to document the evaluation and management plan in the patient's electronic medical record. The trainee should communicate the evaluation in a clear and concise manner to the requesting physician and provide adequate follow up. Interactions with colleagues and allied personnel should be conscientious, respectful, responsible, punctual, and appropriate. The trainee must exhibit humanistic qualities when interacting with patients and their families and demonstrate integrity, respect and compassion.

The VA outpatient fellow is expected in the VA clinic at 8:00 am. Fellows are expected to participate in the performance and interpretation of nuclear cardiology studies, CT coronary angiograms and also review echo studies done in the VA echo lab. Fellows are mandated to maintain a detailed procedure log. The fellows will perform and interpreting GXTs at the VA and following up the abnormal results as appropriate. The VA outpatient fellow is responsible for interpretation of all Holter monitors and will read half of all ECGs for the day. The ECG reading is to be shared with the VA attending.

Supervision:

The fellow is expected to discuss all cases with the supervising cardiology staff. However, complex cath cases and EP cases directly discussed with the cath lab and EP staff. All discussed cases must be documented in the VA electronic chart with the name of the attending physician.

Learning Objectives:

1. Obtain training in the concepts and practice of effective outpatient cardiac consultation. This includes:
 - a. Improving skills for acquiring a detailed and accurate history and physical examination. (A,B)
 - b. Improving skills for insight review of laboratory data. (A,B)
 - c. Obtain training in review of noninvasive and invasive cardiac tests and incorporation of the test results into the context of the patient's presentation. (A,B)
 - d. Obtain training in placing the cardiac findings in the patient's overall medical context. (A, B)
 - e. Obtain training in formulation of a broad differential diagnosis with focus on the most likely diagnosis. (A,B)
 - f. Obtain training in formulation of an effective treatment plan. (A,B)
 - g. Gain experience in providing support of the proposed diagnosis and treatment plan by citation of relevant clinical studies and guidelines. (B,C)
 - h. Gain experience in effective communication and interaction with referring physicians. (D,E)
2. Gain exposure to a broad range of cardiac conditions through individual outpatient consultations and supplemental reading. (A,B)
3. Gain training in guideline-based preoperative cardiac risk assessment and effective preoperative risk reduction. (B,C)
4. Obtain training in ECG interpretation. (B)
5. Obtain training in exercise and pharmacological stress testing performance and interpretation. (B)
6. Obtain training and understanding the indications, contraindications, and risks of cardioversions. (B)
7. Gain an appreciation for the role of the staff members in the non-invasive labs, including the technicians, nurses and administrative staff. (D,E,F)

Patient characteristics/mix of diseases/types of clinical encounters:

At the VA, most patients presenting to the non-invasive labs for cardiac procedures and those presenting to the outpatient consult clinic are adult males from a variety of ethnic backgrounds. Fellows will evaluate patients in the outpatient clinic setting. Fellows will also evaluate patient's pre-and post-procedure. Cardiac conditions encountered will include chronic coronary disease, congestive heart failure, valvular heart disease and dysrhythmias.

Teaching Methods:

Teaching occurs by a variety of methods on this rotation.

1. Direct teaching related to technical skills occurs during the performance of elective procedures.
2. The supervising physician will over read fellow interpretation of stress ECGs and TEEs and offer constructive criticism and further instruction. Attendings will read echoes directly with the fellow and provide didactic teaching during the reading sessions.
3. The supervising physician will review the detailed consult notes written by the fellow on all patients seen in clinic. The attending cardiologist provides constructive suggestions for acquisition of additional relevant clinical information, alternate interpretations of the data presented, recommendations for additional diagnostic consideration, and additional treatment considerations. The attending cardiologist reviews the noninvasive and invasive study results performed on the consult patients with the fellow.

Evaluations:

1. The goals and objectives for the rotation will be verbally communicated at the beginning of the rotation.
2. The fellow's progress will be reviewed verbally at mid-rotation.
3. A standard fellow evaluation form will be completed by the VA attending cardiologist who worked with the fellow during his clinic duties. This will be attained in New Innovations.
4. The final evaluation will be based on the fulfillment of the rotation objectives as determined by:
 - a. Personal observation during interaction with the fellow.
 - b. Evidence of literature review related to individual patients seen in the consult clinic.
 - c. Evidence of a thorough and accurate patient history and physical examination for each consult patient seen in clinic and evidence of an appropriate directed history and physical examination for each patient referred for pre-procedure evaluation.
 - d. Accuracy in interpretation of invasive and non-invasive tests for the consult patient, with good insight into the role of those test results in arriving at an appropriate differential diagnosis and treatment plan.
 - e. Performance of the fellow in arrivals at a broad, appropriate differential diagnosis with focus on a most likely diagnosis.
 - f. Use of literature and guidelines to develop appropriate treatment plans.
 - g. Improved accuracy in interpretation of ECGs, stress ECGs, and TEEs.
 - h. Progression of technical skills in performing TEEs.
 - i. Feedback from the support staff in the non-invasive, ECG lab and nurse managers.