

Rotational Electrophysiology Guideline

Educational Purpose of the Rotation

Participation in the electrophysiology rotation provides sub-specialty residents with the opportunity to gain knowledge and procedural skills in the areas of electrophysiology testing. This includes pacemaker evaluation, insertion and post insertion assessment. Additional skills include tilt table testing, cardiac ablation procedures, defibrillators and temporary pacemaker intervention. The educational process also provides teaching the guidelines for proper assessment and referral of patients to the electrophysiology specialty area as well as a comprehensive understanding of benefits and risks of these procedures. An important part of this rotation is learning about medical and interventional management of a variety of arrhythmias.

Rotation Attendings

Ranjan Thakur MD
Mark Castellani MD

David Rhine MD
John Ip MD

This rotation occurs at Sparrow Health System and McLaren Greater Lansing. This is a required rotation which the sub-specialty residents rotate twice during the three-year program. Additional rotations may be arranged as electives for those sub-specialty residents who express interest in a specialization in this field.

Resources

Both Sparrow Health System and McLaren Greater Lansing have modern electrophysiology laboratories with all necessary equipment to perform intracardiac arrhythmia mapping and ablation procedures. Outpatient clinics are conducted on a regular basis with the attending physician. This clinical experience includes assessment and management of new and return patients as well as pacemaker and defibrillator follow up including interrogation and reprogramming. Referrals to this service occur via cardiologists (both MSU and private), primary care physicians and other services. The patients consist of both genders, diverse ethnicity and socioeconomic backgrounds. The diagnoses may include ventricular and supraventricular arrhythmias, tachyarrhythmias, bradyarrhythmias, accessory pathways, syncope or other related symptoms.

Responsibilities

Participation in this rotation requires the sub-specialty resident to:

1. Secure a thorough history and physical examination with presentation of the case to the attending physician in a logical and timely manner.
2. Learn the appropriate indications and possible complications of testing modalities associated with this specialty including the risks and benefits and probable outcomes of treatment and non-treatment options.
3. Actively participate in the patient management prior to, during and following any procedure including follow up pacemaker and defibrillation implantation.
4. Participate in outpatient clinics for procedural follow up including pacemaker and ICD interrogation and programming.
5. Ensure hemostasis of the venous access site.
6. Write a preliminary report and dictate a final report with associated documentation for inclusion in the medical record under the direction of the attending physician.
7. Review results/outcomes with referring physicians, patients, patient family members and members of the health care team.
8. Present case studies during Cardiology Grand Rounds and attend other conferences as required.
9. Review and be prepared to discuss relevant literature references.
10. Present case studies and literature reviews during the scheduled EP Conference.

Objectives

At the conclusion of the electrophysiology training segment the sub-specialty resident will:

1. Demonstrate an increased proficiency in the fundamental knowledge required to perform electrophysiology studies including interpretation of cardiac arrhythmias.
2. Progression in skill levels will allow the sub-specialty resident to more actively participate in the procedures and dictation of final reports. Cases are always to be discussed with the attending physician.
3. Demonstrate an increased awareness of the indications, risks, benefits and possible outcomes of electrophysiologic testing and procedures.

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4. Work effectively with all members of the health care team, communicate effectively with patients and their families as well as referring and consulting physicians.

Instructional Methods

Attending physicians participating in this rotation will:

1. Supervise and instruct the sub-specialty residents in accordance with the Supervision Policy.
2. Provide an atmosphere allowing for responsible patient care while encouraging subspecialty residents to assume more primary responsibility as their skills progress.
3. The sub-specialty resident must be provided with on-going performance feedback and interpretation skills.
4. Provide structured teaching opportunities including appropriate literature references/citations for review and discussion.

Evaluation Process

At the conclusion of each rotation attending physicians and sub-specialty residents will:

1. Faculty members will summarize and accurately describe the sub-specialty resident performance on the provided evaluation form. The faculty member will review this form with the sub-specialty resident, both members will sign their acknowledgment and the evaluation will be returned to the program office. This information will be included in the sub-specialty resident file for Program Director review.
2. Sub-specialty residents will summarize and accurately describe both the faculty performance and the educational benefit of the rotation and return this evaluation to the program office. In accordance with the provision for sub-specialty resident anonymity, these rankings are entered into a spreadsheet program for tabulation and the original forms are destroyed.

Readings: As assigned.

Schedule: Please refer to master sub-specialty resident schedule

Competency Level:

Completion of the Electrophysiology Rotations would permit the Sub-Specialty Resident to qualify for Level I competency under the COCATS3 Guidelines. A log must be kept on all EP procedures.