Rotation: Cardiac Catheterization Laboratory

Rotation through the cardiac catheterization lab for general cardiology fellows is geared towards learning to perform and interpret left and right heart catheterizations.

Summarized Rotation Responsibilities

- Preprocedure evaluation, Precath note, consent for the first case of the day
- Attend Friday morning Cath conference starting at 7:00 am
- Pull five sheaths with nursing supervision (can also be supervised by upper level fellow, interventional fellow, or attending)
- Complete reports same day as the procedure

Learning Objectives

Patient Care and Procedural Skills	
Objective	**Teaching Method**
Obtain preprocedural evaluation with history, assess appropriateness, obtain informed consent, and plan procedure strategy.	Clinical teaching Role modeling Direct observation
Skill to perform venous and arterial access and obtain hemostasis.	Clinical teaching Direct observation
Skill to perform right and left heart catheterizations, ventriculography, coronary angiography, endomyocardial biopsy, and integrate with clinical findings for patient management.	Clinical teaching Direct observation

Medical Knowledge	
Objective	**Teaching Method**
Know coronary anatomy and its variations and understand coronary blood flow physiology	Clinical teaching Didactics Self directed learning
Know the indications and contraindications of cardiac catheterization in the evaluation of coronary, valvular, myocardial, and basic congenital heart disease.	Clinical teaching Didactics Self directed learning
Understand radiation safety	Clinical teaching Didactics Self directed learning
Understand use and limitations of contrast media and the role of renal protection.	Clinical teaching Didactics Self directed learning

Know the normal cardiovascular hemodynamics and the principles and interpretation of waveforms, pressure, flow, resistance, and cardiac output measurements. Understand the characteristic hemodynamic findings in myocardial, valvular, pericardial, and pulmonary vascular diseases.	Clinical teaching Didactics Self directed learning
Know angiographic features of coronary artery disease and how to assess anatomic and physiologic severity.	Clinical teaching Didactics Self directed learning
Know vascular anatomy and the indications and contraindications for peripheral vascular angiography. Understand the indications for, and complications of, vascular access closure strategies and devices.	Clinical teaching Didactics Self directed learning
Understand the indications and contraindications, and mechanism of action for mechanical circulatory support devices.	Clinical teaching Didactics Self directed learning

Professionalism	
Objective	**Teaching Method**
Practice within the scope of expertise and skill.	Clinical teaching Role modeling Feedback
Demonstrate accountability and professional behavior towards patients, family members, and members of the health care team and ancillary/support staff.	Clinical teaching Role modeling Feedback
Demonstrate compassion and respect for others, including patients from a diverse cultural, social, and religious backgrounds	Clinical teaching Role modeling Feedback

Interpersonal and Communication Skills	
Objective	**Teaching Methods**
Communicate with and educate patients and families across a broad range of socioeconomic, ethnic, and cultural backgrounds.	Clinical teaching Role modeling Feedback
Communicate effectively with physicians and other members of the healthcare team regarding procedure findings, treatment plans, and follow-up care coordination.	Clinical teaching Role modeling Feedback
Cardiac catheterization reports and associated procedures and complications will be available for review in the computerized medical record the same day the procedure is performed. Stat or	Clinical teaching Role modeling Feedback

urgent studies will be read as soon as study is available for review and results communicated to the provider.	

Practice Based Learning and Improvement	
Objective	**Teaching Method**
Document number and outcomes of diagnostic and therapeutic procedures.	Direct supervision
Identify both strengths and gaps in knowledge and expertise and set appropriate learning goals. Accept constructive criticism in order to improve skills and knowledge set.	Clinical teaching Feedback
Locate, appraise, and assimilate information from studies, guidelines and registries in order to identify knowledge and performance gaps.	Role modeling Didactics

Systems Based Practice	
Objective	**Teaching Method**
Coordinate care in an interdisciplinary approach for patient management, including transition of care.	Clinical teaching Role modeling Feedback
Ulitize cost-awareness and risk/benefit analysis in patient care.	Clinical teaching Self directed learning Role modeling Feedback
Advocate for and work towards patient safety and improved quality of care	Clinical teaching Role modeling Feedback

Reading Resources (check the google drive)

1. Grossman's and Baim's Cardiac Catheterization, Angiography, and Intervention. Mauro Moscucci. Eighth Edition. 2013.
2. The Cardiac Catheterization Handbook. Morton Kern, Paul Sorajja, and Michael Lim. Sixth Edition. 2016.
3. 2013 ACCF/AHA Guideline for the Management of ST-Elevation Myocardial Infarction. http://circ.ahajournals.org/content/early/2012/12/17/CIR.0b013e3182742cf6
4. 2014 AHA/ACC Guideline for the Management of Patients with Non-ST-Elevation Acute Coronary Syndromes. http://circ.ahajournals.org/content/early/2014/09/22/CIR.0000000000000134