CARDIOLOGY ROTATION
GOALS AND OBJECTIVES

PGY-1 Core Medicine Rotation
The trainee will have the opportunity to develop clinical skills, the ability to analyze patients’ problems, and make treatment plans through an exposure to a wide variety of patients with cardiac disease in both the inpatient and outpatient setting. This will be accomplished under the supervision of more senior house staff and the attending physicians on the service.

After the Cardiology rotation, the resident will be able to:

A. Medical Expert
   1. Conduct a cardiology history
   2. Conduct a cardiovascular physical examination
   3. Assess patients with coronary artery disease, valvular heart disease, congenital heart disease, hypertension, cardiac arrhythmias, and congestive heart failure
   4. Demonstrate proficiency in the following: recording the electrocardiogram, venipuncture, intravenous therapy

B. Communicator
   1. Demonstrate skill in medical record keeping by recording the case histories of inpatients and writing progress notes at an appropriate frequency.
   2. Prepare timely and concise discharge summaries and dictating letters to referring physicians on patients seen in consultation in the outpatient department.
   3. Develop skills in verbal presentation by presenting cases at ward rounds, in the clinic and on occasion at formal teaching conferences.

C. Collaborator
   1. Recognize and integrate into case management, the roles of other health care providers including cardiac surgeons, physiotherapists, diéticians, nurses, and social workers.
   2. Foster respect for and appreciation of the importance of communication with allied health care workers and referring physicians in the care of patients.

D. Manager
Gain experience in formulating a list of appropriate and cost-effective investigation and treatment on patients with cardiac disease under the guidance of the resident on the service and attending physician.
E. Health Advocate

1. Use appropriate special diagnostic methods in cardiology (ECG, echocardiography, nuclear cardiology, cardiac catheterization, and angiography) and follow up on the results and interpretation of tests done on their assigned inpatients and outpatients.
2. Identify and use appropriate interventions to treat risk factors for coronary artery disease.

F. Scholar

1. Identify and review current medical resources for up-to-date information on common cardiac clinical problems.
2. Demonstrate an understanding of the importance of basic physiology and pathophysiology to the practice of cardiac medicine.

G. Professional

1. Demonstrate a professional manner to render routine and emergency cardiac care through on coverage of the inpatient cardiology service.
2. Recognize the role of biomedical ethics in medicine including clinical practice, teaching, and research.
3. Embrace attitudes conducive to effective doctor-patient/family, doctor-doctor and doctor-allied health care worker relationships.
**PGY-2 Core Medicine Rotation**

The trainee will extend the experience begun in the PGY-1 year to further develop clinical skills and judgment by exposure to inpatients and emergency referrals to the cardiology service. An important component of this experience will be the assessment of patients referred to the emergency department with acute cardiac problems. She/he will develop supervisory skills by overseeing the work-ups and management of patients on the inpatient service performed by the PGY-1s and clinical clerks as well as teaching skills by being responsible for clinical education of these house staff.

After the Cardiology rotation, the resident will be able to:

**A. Medical Expert**

1. Perform a thorough history with particular emphasis on the detailed history of the cardiovascular system
2. Perform a general physical examination as well as a detailed examination of the cardiovascular system
3. Detect and interpret the significance of any abnormal physical findings related to diseases of the cardiovascular system.
4. Demonstrate experience in the assessment and management of chest pain, arrhythmias, syncope, congestive heart failure, and cardiogenic shock
5. Manage acute cardiac emergencies in the initial phase of treatment in the emergency room and on the inpatient cardiology service
6. Assess and manage patients with hypertensive crisis, bacterial endocarditis, heart murmur, and known valve disease, (esp. mitral and aortic)
7. Give an in-depth electrocardiogram interpretation
8. Demonstrate proficiency central line insertion and arterial line insertion and exposure to pacemaker insertion and pericardiocentesis

**B. Communicator**

1. Document clearly and concisely by means of notes, procedure notes and clinic letters, the essential components of all clinical encounters. The analysis and clinical plans should be recorded at a level of sophistication in keeping with the PGY-2’s training.
2. Appreciate the importance of effective and clear communication with patients and involved family members.

**C. Collaborator**

1. Recognize and integrate into case management, the roles of other health care providers including cardiac surgeons, physiotherapists, dieticians, nurses, and social workers.
2. Foster respect for and appreciation of the importance of communication with allied health care workers and referring physicians in the care of patients.
D. Manager

1. Gain supervisory experience by reviewing elective cases with the PGY-1s and clinical clerks in regard to their diagnostic assessments and treatment plans. This will also require writing a resident’s summary admission note on these charts.
2. Supervise the PGY-1s and clinical clerks on the cardiology service managing acute problems developing on the inpatient cardiology service and in the emergency department.
3. Supervise PGY-1s and clinical clerks perform basic cardiac procedures such as ECGs, venipuncture, central line insertion, and arterial line insertion.

E. Health Advocate

1. Recognize the role played by physicians in the health care system.
2. Appreciate patient autonomy and the religious, ethnic and psychosocial factors which influence the doctor-patient relationship and to take such factors into account when pursuing problems and understanding patient decisions.

F. Scholar

1. Develop teaching skills by supervising the junior house staff and by participating in presentations and discussion at cardiology conferences.
2. Critically appraise the literature in appropriately complex cases.
3. Appreciate the importance of critical appraisal of the literature and the application of the literature in patient care.

G. Professional

1. Recognizes the limitations of own knowledge.
2. Demonstrate professionalism by attending all clinical and teaching activities prepared and on time.
3. Embrace attitudes conducive to effective doctor-patient/family, doctor-doctor, and doctor-allied health care worker relationships.
PGY-3 Core Medicine Rotation
The trainee will gain experience in the role of a consultant by working on the cardiology consultation service and presenting cases for discussion with responsible attending physician. The trainee will act as a consultant to the more junior house staff as they deal with problems in the emergency department and on the cardiology ward. She/he will expand their skills in acute cardiac care by being responsible for the assessment and management of cases in the coronary care unit.

After the Cardiology rotation, the resident will be able to:

A. Medical Expert

1. Demonstrate competence in managing patients in the coronary care unit with common cardiology conditions e.g. chest pain, acute myocardial infarction, congestive heart failure, cardiogenic shock, unstable angina and arrhythmias, pericardial effusion and tamponade.
2. Demonstrate proficiency in central line and arterial line insertion and cardioversions. Exposure to patients with Swan-Ganz catheters and pericardiocentesis
3. Perform a preoperative cardiac risk assessment for non-cardiac surgery

B. Communicator

1. Demonstrate effective verbal communication skills in assessing patients referred to the cardiology consultation service from the inpatient wards in the hospital.
2. Communicate effectively through written consultation reports prepared on each patient.

C. Collaborator

1. Assist the junior house staff when they see complex problems in the emergency room or on the inpatient service.
2. Perform a competent pre-operative assessment on a patient and assist the consulting operative team in optimizing the care of patients requiring elective and urgent surgical intervention.
3. Demonstrates effective collaboration with referring services and appropriate allied health personnel.

D. Manager

1. Allocate patients with acute coronary syndromes to the appropriate acute care setting (e.g. CCU, ward)
2. Demonstrate appropriate supervision of junior trainees
3. Demonstrate the ability to manage time efficiently and appropriately triage patients in terms of the severity of their presentations

E. Health Advocate

1. Recognize the role played by physicians in the care of patients with cardiac disease.
2. Advocate effectively for reduction of cardiac risk factors seen in patients presenting in the ambulatory setting.
F. Scholar

1. Prepare and present discussions for the cardiology subspecialty rounds, attending cardiology journal club sessions and attending the monthly Tuesday evening cardiology seminars.
2. Demonstrate the ability to pursue self-directed learning
3. Demonstrate use of the best available evidence in the management of patients on the cardiology service
4. Participate in the teaching and education of junior residents and clerks.

G. Professional

1. Recognizes the limitations of own knowledge.
2. Demonstrate professionalism by attending all clinical and teaching activities prepared and on time.
3. Embrace attitudes conducive to effective doctor-patient/family, doctor-doctor, and doctor-allied health care worker relationships.