

Cardiology

Goal

Cardiology is the prevention, diagnosis, and management of disorders of the cardiovascular system, including ischemic heart disease, cardiac dysrhythmias, cardiomyopathies, valvular heart disease, pericarditis and myocarditis, endocarditis, congenital heart disease in adults, hypertension, and disorders of the veins, arteries, and pulmonary circulation. Management of risk factors for disease and early diagnosis and intervention for established disease are important elements of cardiology. The general internist should be able to provide primary and secondary preventive care and initially manage the full range of cardiovascular disorders.

Lead Faculty

VA Elective Service: Mark Starling, MD
UMMC Elective Service: Kim Eagle, MD
Coronary Intensive Care: Robert Cody, MD

Objectives

Patient Care and Medical Knowledge

Obtain a history and physical examination, and interpret laboratory data to diagnose cardiac disease in a wide variety of patients on other medical or surgical inpatient services.

Evaluate and manage a wide range of cardiac disorders, including: ischemic heart disease, hypertensive heart disease, valvular heart disease, adult congenital heart disease, cardiac dysrhythmias, congestive heart failure management, cardiomyopathy assessment, and discuss the implications of systemic disease processes on the heart, endocarditis, the implications of vascular disorders, COPD and chronic renal failure on the heart.

Arrhythmias

Describe the pathophysiology of recurrent ventricular and supraventricular arrhythmias.

Develop competence in the use of anti-dysrhythmic drugs to treat acute arrhythmias.

Congestive Heart Failure

Describe the pathophysiology of pulmonary edema.

Integrate specific test results into the clinical presentation as developed from a history, physical examination, and laboratory data for patients with acute and chronic ischemic heart disease and congestive heart failure.

Discuss issues regarding the appropriate selection of medical therapy for congestive heart failure.

Clinically manage patients with pulmonary edema and low cardiac output.

Manage patients who have undergone cardiac transplantation or left ventricular assist device implantation.

Coronary Artery Disease

Discuss the importance of risk-factor modification in primary and

secondary prevention.

Describe the pathology, pathogenesis, and pathophysiology of acute ischemic syndromes, chronic ischemic heart disease, and congestive heart failure.

Discuss issues regarding the appropriate selection of medical therapy for ischemic syndromes.

Discuss the importance of medical therapy, percutaneous revascularization, and surgical therapy for the treatment of ischemic heart disease.

Systemic Disease

Discuss the importance of co-morbid disease processes such as hypertension, diabetes, systemic disease, chronic obstructive pulmonary disease, and chronic renal failure on ischemic heart disease and heart failure diagnosis and management.

Valvular Disease

Describe the pathophysiology of acute valvular disease, e.g. endocarditis.

Describe the pathophysiology and treatment of acute aortic dissection.

Manage patients with pulmonary hypertension.

Describe the natural history of multiple cardiac disease processes and the importance of aging on these disease processes.

Describe the pathophysiology and treatment of acute pericardial disease, including: tamponade and constriction.

Develop an understanding of heart disease in women.

Know the indications for medical and surgical therapy for cardiac complications of endocarditis, pericardial disease, aortic disease, peripheral vascular disease, cardiac trauma, and tumors.

Appropriately utilize electrocardiograms, echocardiograms, and exercise treadmill tests in planning for diagnostic and therapeutic decisions.

Describe the indications for electrophysiology, cardiac catheterization, intervention, and cardiac nuclear medicine studies in the evaluation and management of complex patients.

Develop competence in applying non-invasive pacing techniques.

Interpret clinical exercise stress tests in patients.

Interpret electrocardiograms.

Practice-based Learning and Improvement

Critically review cardiac clinical trial data in the medical literature.

Develop skills in presenting clear explanations of the current literature regarding the management of wide range of acute and chronic heart disease issues.

Utilize the current literature to make appropriate diagnostic and therapeutic plans.

Interpersonal and Communication Skills

Communicate with primary care and/or subspecialty physicians on their patient in the inpatient units about the patient's course, the results of specific tests, the long-term follow-up plans, issues regarding risk-factor modification, and rehabilitation where appropriate.

Develop an appreciation of the necessary cooperation of the anesthesiologist and the surgeon in developing collective treatment goals for patients.
Develop an organized approach to the post-discharge treatment and communication regarding patients being seen in consultation.
Develop a working relationship with colleagues on non-cardiac services.

Professionalism

Develop interactive skills and professional attitudes towards surgery patients, their families, and their attending physicians.

Systems-based Practice

Develop experience with the triage of patients between the intensive care unit and cardiac telemetry units, as well as other units.

Teaching Methods

Teaching Rounds
Conferences

Evaluation

Learning goals are established with each intern, resident, and fellow by the attending at the beginning of the month. Formative face-to-face feedback to interns, residents, and fellows by attendings occur at mid-month.

Each month, the Cardiology attendings complete written evaluations of interns, residents, and fellows and these learners evaluate the Cardiology attendings. Interns, residents, and fellows evaluate the rotation informally through advisor meetings and contact with CMRs.

Resources

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Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	7:00 Work Rounds 8:00 Morning Report 9:00 Work Rounds	7:00 Work Rounds 8:00 Morning Report 9:00 Work Rounds	7:00 Work Rounds 8:00 Morning Report 9:00 Work Rounds	7:00 Work Rounds 8:00 Morning Report 9:00 Work Rounds	7:00 Work Rounds 8:00 Morning Report 9:00 Work Rounds
PM	12:00 Noon Conference 2:00 Teaching Rounds	12:30 Intern Report 2:00 Teaching Rounds	12:00 Noon Conference 2:00 Teaching Rounds	12:00 Noon Conference 2:00 Teaching Rounds	12:00 Grand Rounds 2:00 Teaching Rounds