GOALS AND OBJECTIVES FOR PGY1 CARDIOTHORACIC SURGERY
RESIDENT ON HUP (SS10) CARDIAC SURGERY SERVICE

Description:
This rotation at HUP will be the initial exposure to adult cardiac surgery, including preoperative assessment and postoperative care. Although their primary responsibility includes care of step-down unit patients, the residents will also be exposed to pre-operative outpatient evaluation and an initial exposure to ICU patients. Residents will also be expected to second assist in the operating room, perform basic surgical skills, and begin to learn about basic and complex cardiac operations through observation.

(1) Medical Knowledge
1. Anatomy, embryology, physiology and pathology of the pericardium, heart and great vessels.
2. The pharmacology, indications for and the complications of drugs commonly used in the specialty, including anti-arrhythmics, inotropes, diuretics, anti-lipid, anticoagulants and thrombolytics, and pain medications.
3. The general principles of preoperative assessment, and postoperative management of cardiovascular surgical patients.
4. The natural history of treated and untreated diseases of the cardiovascular organs, specifically, surgical diseases involving the pericardium, heart and great vessels.
5. Principles of surgery, including hemostasis, wound healing, wound complications, electrolyte and fluid replacement, and surgical nutrition.
6. Understand common postoperative care issues in the cardiac surgery patient, including sternal precautions, exercise expectations/limitations, need for home oxygen, and indications for SNF/rehab facility.
7. General principles of myocardial protection.

(2) Clinical Skills
1. Perform an appropriate relevant history and physical exam in the ward, ambulatory clinic, and emergency department settings.
2. Order appropriate laboratory, radiological and other diagnostic procedures.
3. Demonstrate knowledge in the interpretation of laboratory investigations, CXR, ECG, coronary angogram, viability studies, and a general understanding of echocardiogram.
4. Arrive at an acceptable plan of management for the disease process, including differential diagnosis.
5. Manage the patient throughout as much of the hospital stay as possible demonstrating knowledge of and an ability to recognize potential complications of the disease process and operative procedures.
6. Demonstrate ability to perform daily resident work rounds efficiently, including dictation of operative cases performed, daily progress notes, dictation of discharge summary, prescription writing.
7. Provide a plan for patient follow-up.
8. Assessment/ciage of urgent/emergent cardiac patients.
(3) Patient Care
1. Function as a first or second assistant in the operating room for cardiac cases. Goal is to observe common cardiac surgery cases and assist in sternotomy, mediastinal dissection, and cannulation.
2. Perform sternal wound closures.
3. Independently remove the long saphenous vein and perform leg wound closure.
4. Handle tissues and surgical instruments in an appropriate manner, and demonstrate adherence to sterile techniques.
5. Insertion of chest tubes and performance of thoracentesis outside the operating room.
6. Insertion of femoral, internal jugular and subclavian central venous lines; insertion of radial arterial lines, under supervision.
7. Removing intra-aortic balloon pumps, chest tubes, and pacer wires post-operatively.
8. Manage cardiac arrhythmias and assess/manage post-operative conditions (atrial fibrillation/flutter, ventricular tachycardia/fibrillation, sinus bradycardia/tachycardia, sternal infections, pericarditis, post-operative bleeding).
10. Perform cannulation of the heart for CPB, with assistance.
11. Insertion of chest tubes, femoral arterial lines intra-operatively.
12. Insertion of an intra-aortic balloon pump intra-operatively with supervision.
13. Participate in preparation and intraoperative management of cardiopulmonary bypass pump, with perfusionist supervision.

(4) Professionalism
1. The ability to be honest, reliable and respectful of the religious, racial and gender characteristics of patients, their families and other members of the health care team.
2. The ability to give and receive advice in a manner that is consistent with the harmonious operation of a health care team.
3. The ability to recognize when to seek assistance from more experienced colleagues.
4. Deliver highest quality care with ethics, integrity, honesty and compassion.
5. Exhibit appropriate personal and interpersonal professional behaviors.
6. Understand the professional, legal and ethical codes to which physicians are bound.

(5) Interpersonal and Communication Skills
1. Listen effectively.
2. Establish therapeutic relationship with patients and families.
3. Obtain and synthesize relevant history from patients and family.
4. Inform patients and families about their condition at an appropriate and understandable level.
5. Write clear consultation notes, progress notes, discharge summaries, and clinic notes.
6. Prepare and present ward rounds in an organized manner.
7. Participate actively in scheduled rounds.
8. Communicate effectively with allied health care professionals.

(6) Systems-based Practice
1. Utilize resources effectively to balance patient care, learning needs and outside activities.
2. Allocate finite health care resources wisely.
3. Understand the importance of and mechanisms to safely utilize resources in a cost-effective manner to benefit all patients.

(7) Practice-Based Learning and Improvement
2. Critically appraise sources of medical information and be aware of resources available.
3. Read around clinical cases.
4. Prepare and present scheduled rounds.
5. When possible, participate actively in scheduled morbidity and mortality conferences.
6. Actively participate in journal club.
7. Participate effectively in facilitate learning of patients, teaching housestaff/medical students, and other health professionals.

Method of assessment of resident academic performance
1. End of rotation online evaluation
2. Yearly in-service training exam.
3. Bi-annual case log review