

CARDIAC SURGERY

Mission Statement

The goal of the Cardiac surgery program is to provide state of the art cardiac surgical care to patients requiring these therapies. At the same time, as an academic surgical department, in addition to its clinical mission, the task of fostering physician education and training in this field, along with advancing the knowledge base of cardiac surgical therapy through ongoing research are major goals of the division.

General Statement of Educational Goals

The curriculum in cardiac surgery is designed to promote the broad goals of the ACGME core competencies:

1. Medical Knowledge: by exposure to a broad range of patients requiring cardiac surgical therapy, the cardiology trainee will come to understand the important issues surrounding a surgical referral. By working with the entire surgical team, the key issues of preoperative, intra-operative and postoperative management of these patients should become apparent to the cardiology trainee.
2. Patient Care: by learning and assisting in the workup, intra-operative care (in conjunction with the cardiac anesthesiologists, perfusionists, nurse practitioners and surgeons) and the unique issues surrounding the postoperative management of the cardiac surgical patient, cardiovascular trainees will become knowledgeable in the special issues associated with a surgical referral. Of paramount importance is gaining an understanding of the various issues surrounding appropriate patient selection for surgery.
3. Interpersonal and Communications Skills: Role modeling of the cardiac surgeon will play an especially important role in this regard. Watching and learning the special communication skills necessary to effectively discuss a major surgical therapy with patients and families is a most important skill to obtain during this rotation. The special informed consent process which provides an honest, yet reassuring discussion of the various risks and benefits of surgical therapy is best learned from these practiced and experienced mentors.
4. Systems Based Learning: Of all the other hospital-based services, the cardiologist likely has the most interaction with the cardiac surgical staff. Observing and working with the surgical staff on a more intimate day to day basis will enhance the trainee's understanding of the workings of this service. This will allow them to work more effectively with the surgical staff in their close role as referring physicians and consultative cardiologists.

Statement of Educational Objectives for Fellows

The goal of this rotation is to provide the trainee with a good understanding of the issues surrounding a patient referral for cardiovascular surgery. This is to be accomplished through participation in the important aspects of patient care on the surgical service. Understanding the important issues regarding appropriate patient selection for surgery is a primary goal of the rotation. This will be accomplished by close one on one contact with the attending cardiac surgeon as he evaluates appropriate candidates for surgical therapy. An understanding of the appropriate pre-operative issues (pulmonary status, renal function, general physical condition, etc.) is of paramount importance to good surgical outcomes and the cardiologist needs to be well familiar with these issues. In addition, a good understanding of the various surgical therapies

themselves through participation in the operating room (CABG, valvular, aortic disease) will allow the trainees to become truly familiar with the clinical details of the various surgical procedures. This will allow them a better understanding of the invasive procedures they will refer patients for throughout their careers, as well as the important decisions (cardiac valve type, valve repair vs replacement, venous vs. arterial graft, etc) that need to be made on each case. In addition to the details of the surgical procedures themselves, by interaction with the cardiac anesthesiologists and perfusionists, the trainees will learn the important issues associated with general anesthesia of cardiac patients, as well as develop a deeper understanding of the important issues and various types of cardiopulmonary bypass. Trainees will also learn the appropriateness of various newer techniques (off pump surgery, robotic surgery, etc.) as well as the patient populations most likely to benefit from these newer techniques.

In addition to understanding the details of the surgical procedures themselves, the immediate post-operative management of cardiac surgical patients is rather different than the management of patients in the pre-surgical period. Cardiac physiology and therapeutic maneuvers in these first post-op hours can be quite different than the usual care which the cardiology fellow is accustomed to providing. Learning the particular nuances of the care of these patients in the first critical hours following surgery will be stressed as well. By following patients from the cath lab to the OR and then to the cardiac surgical ICU, the trainee will be able to see the continuum of care of an individual patient and from this learn the important issues of cardiac surgical care. This understanding is absolutely critical to the training of a cardiologist who is going to be regularly referring patients for these procedures.

Expectations of Fellows:

The cardiology fellow will report to Dr. Peter Knight, Chief of adult cardiac surgery at the beginning of the rotation and Dr. Knight will direct the experience for the fellow during this rotation. Fellows will be expected to become actively involved in the rotation, attending all cardiac surgical conferences in addition to the clinical experiences as outlined above. Given the short nature of the experience, vacation time is discouraged during this rotation in order to maximize the learning experience.

Didactic Sessions:

Specialized didactic sessions in cardiac surgical management and therapy are provided as part of the core lectures series in cardiology each year. The surgeons who specialize in the various cardiac surgical fields (CABG, valvular therapy, VADS, off-pump) deliver these lectures.

References:

Cardiac Surgery, Third Edition; Kuchoukos, Blackstone, Doty, Hanley and Karp. Elsevier Science, 2003.

Credentials of the Medical Staff

George L. Hicks, Jr., M.D.

Wesleyan University, B.A.

University of Rochester Medical School, M.D.

General Surgery Internship, University of Rochester Medical Center

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Thoracic and Cardiovascular Residency, University of Texas Southwestern

Heart and Lung Transplantation, Adult Cardiac Surgery Fellowship, Duke University Medical Center

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Cardiothoracic Surgical Fellowship, University of Rochester Medical Center

Pediatric Cardiac Surgical Fellowship, Children's Hospital and Medical Center