Faculty In Charge Of Course: O. H. Frazier, M.D.
Participating Faculty: Drs. Igor D. Gregoric and William E. Cohn
Location: St. Luke's Episcopal Hospital
Offered: Each month
Max. # Students/Period: 1

Contact: Libby Schwenke at LSchwenke@heart.thi.tmc.edu

Course Objective

Material Covered:
This elective will expose students to the management of patients with advanced heart failure. Students will work one-on-one with physicians on a cardiac transplant service and will have first-hand access to the most current information in the use of ventricular assist devices (VADs) in the surgical treatment of heart failure patients. Students will round with participating physicians twice a day and will participate in transplant surgeries. Students will be introduced to the history/progression of mechanical circulatory support, the variety of available pumps (pulsatile, axial, centrifugal), patient selection, surgical procedures, and management and outcomes of patients with advanced heart failure.

Specific learning objectives for this elective are as follows:

By the end of this elective, the student will be able to:

- Present patient information in a clear, concise, and organized manner
- Create and present a diagnostic and therapeutic approach to a patient with advanced heart failure
- Utilize analytical skills to discuss the appropriate use of mechanical circulatory support devices in patients with advanced heart failure
- Discuss end-of-life issues related to the care of patients with advanced heart failure

Students will demonstrate attainment of the above objectives through daily patient presentations to attending physicians, performances on rounds, and in the operating room.

Skills Acquired:
- Students will be allowed to assist in the OR.

Activities Of Elective

Number Of New Patients/Student/Week: 3

Responsibilities Of Student For Assigned Patients:

| Does history/physical: | No |
| Who critiques: | N/A |
| Follows patients, with appropriate notes as needed: | Yes |
| Who supervises: | Transplant physicians and fellow |
| Does student see ambulatory patients: | Yes |

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<tr>
<th>Procedures</th>
<th>Observe</th>
<th>Perform</th>
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<td>Assists in the OR</td>
<td>Yes</td>
<td>Yes</td>
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Scheduled Duties of Student:

| Frequency of rounds on patients | Daily |
| Presents patients to preceptor or attending physician | YES |
| Weekly schedule of required teaching sessions | Wednesday and Thursday AM |

Describe Optional Rounds And Activities, If Any:

N/A

Other Required Activities:

| Reading/review of current literature | Yes |
| Writing or presenting a paper | No |

How Is Student Evaluated:

Frequency of rounds on patients: Daily
Presents patients to preceptor or attending physician: YES
Weekly schedule of required teaching sessions: Wednesday and Thursday AM
Students are observed closely enough by faculty to evaluate their performance meaningfully. The students are evaluated based on the demonstration of their accomplishment of the objectives. Mid-rotation feedback is encouraged for all students, but feedback in writing is required for any students identified as having deficiencies, as soon as the deficiency is identified.

**Who Evaluates Students:**

Faculty

**Unique Features Of This Elective:**

This elective offers a unique experience involving the latest advances in the surgical treatment of patients with heart failure. Physicians at the Texas Heart Institute, one of the foremost cardiac centers in regard to volume and outcomes related to cardiac transplantation, are world leaders in the development and use of ventricular assist devices (VADs) to help patients with severe heart failure. We have transplanted over 1,200 hearts and implanted more than 800 since the research program began 40 years ago. There are more than a dozen different VADs being studied in clinical trials and even more under development in pre-clinical studies here at the Texas Heart Institute.