

Curriculum Cardiology Consult Service

Description of Rotation or Educational Experience

The goal of this rotation is for the cardiology fellow to develop effective consultative skills by integrating all components of diagnostic modalities, patient evaluation, risk-benefit analysis, evidence-based practice and communication with all appropriate services.

Specific educational goals for this rotation include refining skills in the:

- Evaluation of perioperative risks
- Medical management of common perioperative conditions, including perioperative arrhythmias and ischemic events.
- Appropriate use of diagnostic tests
- Preparation of appropriate consultative notes.
- Education of medical students and residents
- Application of guidelines to patient care

Progressive responsibilities

During the two months of this rotation, fellows achieve a higher level of autonomy in providing consults, arranging for diagnostic testing and in leading the consult team. The rate of progression is determined by direct faculty assessment of the fellow's progress and competencies.

Patient Care

Goal

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows are expected to:

Competencies

- Evaluate patients the consult team is following on a daily basis with particular attention paid to data acquisition and assessment of cardiovascular symptoms and hemodynamic parameters.
- Formulate independent diagnostic and therapeutic recommendations.
- Make adjustments in care recommendations based on daily assessment of patient's response to previous therapy.

Objectives

- The acquired history, physical exam laboratory data and cardiac imaging studies are reviewed on a daily basis with the faculty.
- The appropriate strategies for further diagnostic and therapeutic recommendations are reviewed with the faculty as often as needed during the day.

Medical Knowledge

Goal

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Fellows are expected to demonstrate:

Competencies

- Ability to analyze EKGs, telemetry strips, and other data to develop a differential diagnosis of arrhythmias
- Understanding of the pharmacology of drugs used in cardiac conditions, particularly the effects of age, hepatic and renal dysfunction and low cardiac output on the pharmacokinetics of drugs.
- Ability to review and understand findings on various cardiovascular tests, including echocardiograms, nuclear perfusion studies and cardiac catheterization and make appropriate recommendation based on this review.

Objectives

- EKG assessments are reviewed on daily rounds. In addition, reviews of known EKGs are done to complement the knowledge base from the consult service.
- Recommendations for use of cardiovascular drugs are evaluated on daily rounds. How fellows access pharmacokinetic information is also observed.
- The fellow reviews cardiovascular studies are reviewed with the junior members of the consult team (students and residents) residents on the patients they are following.

Practice- Based Learning and Improvement

Goal

Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life long learning. Fellows are expected to develop skills and habits to be able to :

Competencies

- Incorporate formative evaluation feedback into daily practice
- Locate, appraise and assimilate evidence from scientific studies related to their patients' health problems

Objectives

- Cases are discussed on a daily basis, and feedback is provided to the resident on their assessment. Reading resources may also be recommended, particularly if a need is identified.
- Fellows should be familiar with key clinical trials, and should be able to provide this information to the consult team

Systems Based Practice

Goal

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Fellows are expected to:

Competencies

- Work effectively in various health care delivery settings and systems relevant to their clinical specialty
- Incorporate considerations of cost awareness and risk-benefit analysis in patient care

Objectives

- Fellows should be knowledgeable in practice guidelines for cardiology practice, and appreciate when recommendations should follow guidelines and what circumstances warrant recommendations different from guidelines.
- Risk-benefit analysis is an important in a procedural specialty, such as cardiology. Fellows are assessed by the appropriateness of their recommendations for intervention based on the patient's medical need and condition.

Professionalism

Goal

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Fellows are expected to demonstrate:

Competencies

- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
- Recognition of the distinction between the role of the consultant and the primary care provide, including the recognition that advice is being sought, but may not necessarily be heeded and that advice that is provided should be limited to those areas of the medical evaluation and care requested by the referring service.
- The ability to recognize and avoid conflicts of interest.
- Strict adherence to confidentiality of patient information.

Objectives

- How fellows approach the patients is evaluated by the attending. This includes references to the patient and a sympathetic attentiveness to emotional (PTSD, dementia) or physical issues (disabilities, age).
- Feedback is also provided to the attending physician by the nursing staff, technicians, and cardiology fellow.

Interpersonal and Communication Skills

Goal

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates. Fellows are expected to:

Competencies

- Act in a consultative role to other physicians and health professionals
- Maintain comprehensive, timely, and legible medical records

Objectives

- Providing consultative care, including communication of concise, well-considered treatment recommendations to the referring team is the crux of the cardiology consult service. Fellows are evaluated in this regard on a daily basis by the consult attending, as well as by feedback from the team requesting the consultation.
- The consult attending reviews the consult notes on a regular basis and signs off on the recommendations.

Teaching Methods

Educational methods include, but are not limited to:

- Didactic sessions by the consult service or other attendings or cardiology fellow
- Ad hoc discussions of issues relevant to the cases being presented.
- Review of relevant literature to patient care issues by members of the consult team with presentation to other team members.

Assessment Method (fellows)

The attending physicians, both inpatient and outpatient, as well as the cardiology fellow perform an independent review of physical examination, clinical data and assess the resident's conclusions based on

that data. Fellows are given immediate feedback on whether their assessment and plan is appropriate at the time of presentation.

In addition, fellows are given individual, oral feedback at the end of the rotation. Written evaluations are entered into MedHub. Performance of the fellows in the program is reviewed on a semiannual basis with input from attendings on all the services. This cumulative feedback is then provided to the fellow by the fellowship director.

Assessment Method (Program Evaluation)
During the rotation and at the conclusion, fellows are asked whether their learning objectives are being met. Also, at the end of the rotation, fellows are asked to provide anonymous written feedback, as well as participating in semiannual meeting of all the cardiovascular fellows to evaluate the program.
Level of Supervision
On this rotation, all patients are initially reviewed with a cardiology faculty member. Notes are also reviewed and signed by the faculty member who has seen the patient.
Rotation Director
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Educational Resources
WEBSITES for cardiovascular guidelines: <ul style="list-style-type: none"> - American Heart Association: www.americanheart.org (search guidelines with site search function) - American College of Cardiology: www.acc.org (quality and science tab) - National Guideline Clearing House: www.guideline.gov Other resources: Updates on cardiology clinical studies: www.theheart.org Exercise testing/EKG: www.cardiology.org Heart sounds/EKG: www.blaufus.com Torsades de Pointes: www.arizonacert.org/medical-pros/drug-lists/drug-lists.htm Journals on-line, including Circulation, New England Journal of Medicine