Family Medicine Residency
Cardiology Rotation
Faculty Coordinator: John White, MD

Rotation Goal
The Cardiology component in the Family Medicine Residency provides the residents with the knowledge, skills and attitudes to competently manage a variety of cardiac care situations and utilize the consultant process peculiar to cardiology. The resident will develop skills that allow for up to date, compassionate care of the adult and pediatric patient in cardiology while integrating evidence based medicine, local standards of care, nationally defined quality care markers and specialty recommendations upon consultation. The resident will develop the appropriate knowledge, skills and attitudes through a variety of educational experiences including conferences and didactic programs during the three year program. The residents will also receive pediatric cardiology exposure during their pediatric blocks. The resident will be with the cardiology attending for a four week block during the PGY 3 year and expected to work five half days per week (96 hours) and a minimum of four half days will be spent with Pediatric cardiology (16 hours). The minimum amount of contact hours is 112. Each resident will be evaluated on the six core competencies at the end of their rotation by the attending physician.

Residents will become familiar with the following:
- Obtaining adequate information through history and physical examination with assistance as needed from attending physicians.
- Writing orders for cardiac care patients including labs and studies for further diagnostic evaluation and treatments.
- Evaluation of patients with unstable vital signs and incorporating ACLS/ACLS-EP/PALS protocol into resuscitation of patients as needed.
- Quality care markers and published guidelines for specific disease states such as congestive heart failure, acute coronary syndromes, hypertension and hyperlipidemia.
- Become familiar with the relationship of cardiology as a consultant in the management of patients

Supervision
Direct observation of the resident is provided by the attending cardiology physicians. Attending Physicians include John Baker M.D., Jim Crenshaw M.D., Chibuzo Nwokolo, MD and Abdul Rashid MD. Their offices are located in the Physicians Tower, 700 West Forrest Ave, Jackson, TN 38301. 731-422-0213.

Rotation Objectives
By the end of the Cardiology rotation, PGY-3 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Required Skill(s)</th>
<th>Teaching Method(s)</th>
<th>Formative Evaluation Method(s)</th>
<th>Frequency of Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Care</td>
<td>SPECIALTY SPECIFIC OBJECTIVES</td>
<td>Conferences/Didactics Daily Rounds</td>
<td>Direct Feedback Global Evaluation</td>
<td>Daily Monthly</td>
</tr>
<tr>
<td>Task</td>
<td>Conference/Didactics</td>
<td>Clinical Teaching</td>
<td>Self Directed Learning</td>
<td>Procedure certification</td>
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<tr>
<td>Write orders for cardiac care patients including labs and studies for further diagnostic evaluation and treatments</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
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<tr>
<td>Evaluate patients with unstable vital signs and incorporating ACLS-EP/ACLS/PALS protocol into resuscitation of patients as needed</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
<td>Direct Feedback Global Evaluation Procedure certification In-training Exam</td>
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<tr>
<td>Analyze quality care markers and published guidelines for specific disease states such as congestive heart failure, acute coronary syndromes, hypertension and hyperlipidemia</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
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<tr>
<td>Develop familiarity with the relationship of cardiology as a consultant in the management of patients</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
<td>Direct Feedback Global Evaluation Procedure certification In-training Exam</td>
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<tr>
<td>Perform an adequate history and physical examination of the adult and pediatric cardiology patient including differentiation of normal and abnormal heart sounds</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
<td>Direct Feedback Global Evaluation Procedure certification In-training Exam</td>
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<tr>
<td>Develop a rational plan of care for patients including diagnostic testing and initiation and alteration of medications</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
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<td>In-training Exam</td>
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<td>Maintain adequate, compassionate communication between the patient and medical staff</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
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<tr>
<td>Establish a reasonable and safe method of outpatient follow-up of patients upon discharge or admission to the hospital</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning</td>
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<td>In-training Exam</td>
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<tr>
<td>Develop skills in the following procedures commonly performed cardiology which should be documented into New Innovations Procedure Logger</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching</td>
<td>Procedure certification</td>
<td>In-training Exam</td>
<td>Direct Feedback Global Evaluation Procedure certification In-training Exam</td>
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<tr>
<td>Medical Knowledge</td>
<td>SPECIALTY SPECIFIC OBJECTIVES</td>
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| • Medical Resuscitation  
  • X-Ray Interpretation  
  • EKG Interpretation  
  • Central Venous Access including with USG Guidance  
  • Exercise Stress Testing | Self Directed Learning  
  In-training Exam  
  Annually |
| Evaluate and manage patients with the following cardiac problems including but not limited to:  
  • Valvular disorders  
  • Acute Chest Pain  
  • Shock  
  • Thromboembolic Disorders | Conferences/Didactics  
  Daily Rounds  
  Clinical Teaching  
  Self Directed Learning  
  Direct Feedback  
  Global Evaluation  
  Procedure certification  
  In-training Exam  
  Daily  
  Monthly  
  Quarterly  
  Annually |
| Manage anticoagulation therapy | Conferences/Didactics  
  Daily Rounds  
  Clinical Teaching  
  Self Directed Learning  
  Direct Feedback  
  Global Evaluation  
  Procedure certification  
  In-training Exam  
  Daily  
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<th>Medical Knowledge</th>
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</table>
| Demonstrate certification in each of the following areas:  
  • ACLS/ACLS-EP Certification  
  • PALS Certification  
  • ALSO certification  
  • ATLS Certification( encouraged but not required) | Conferences/Didactics  
  Daily Rounds  
  Clinical Teaching  
  Self Directed Learning  
  Direct Feedback  
  Global Evaluation  
  Procedure certification  
  In-training Exam  
  Daily  
  Monthly  
  Quarterly  
  Annually |
| Develop an understanding of the various cardiovascular conditions, including cardiac arrest, myocardial infarction, dysrhythmias (ex.- Atrial fib, PSVT, WPW, VTach and sudden cardiac death), congestive heart failure, hypertension, cardiomyopathies, pericarditis, unstable and stable angina and coronary artery disease | Conferences/Didactics  
  Daily Rounds  
  Clinical Teaching  
  Self Directed Learning  
  Direct Feedback  
  Global Evaluation  
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  Monthly  
  Quarterly  
  Annually |
| Prescribe appropriate pharmacologic agents for cardiac disorders | Conferences/Didactics  
  Daily Rounds  
  Clinical Teaching  
  Self Directed Learning  
  Direct Feedback  
  Global Evaluation  
  Procedure certification  
  In-training Exam  
  Daily  
  Monthly  
  Quarterly  
  Annually |
| Demonstrate adequate knowledge of the common disorders of the adult and pediatric cardiac patient with assistance from upper level residents, attending physicians and faculty. | Conferences/Didactics  
  Daily Rounds  
  Clinical Teaching  
  Self Directed Learning  
  Direct Feedback  
  Global Evaluation  
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  Monthly  
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<th>Practice Based Learning and Improvement</th>
<th><strong>SPECIALTY SPECIFIC OBJECTIVES</strong></th>
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<tr>
<td>See General Family Medicine Objectives for a comprehensive list.</td>
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<td>Utilize evidence-based resources in the care of cardiac patients.</td>
<td>Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning Direct Feedback Global Evaluation Procedure certification In-training Exam Daily Monthly Quarterly Annually</td>
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<td>Maintain a list of journal articles that have been reviewed on a monthly basis.</td>
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<th>Interpersonal and Communication Skills</th>
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<td>Effectively communicate with patients and family members in the presence of cardiology attending physicians.</td>
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<tr>
<td>Describe the best approaches to choosing appropriate vocabulary, describing realistic outcomes, and working with “difficult” patients and family.</td>
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Describe the indications and limitations for/of invasive procedures:
- Cardiac Catheterization
- CTA Coronary arteries
- Exercise Stress Testing
- Electrophysiology studies
- CABG
- Valve Replacement
- Pacemaker Placement
- Implantable Defibrillator Placement

Develop an in-depth understanding of normal anatomy and physiology of the cardiovascular system.
See General Family Medicine Objectives for a comprehensive list.

| Behavior in a professional manner towards patients, their families, nursing and all ancillary staff | Conferences/Didactics Daily Rounds Clinical Teaching Self Directed Learning Press Gainey Survey | Direct Feedback Global Evaluation Procedure certification In-training Exam | Daily Monthly Quarterly Annually |

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<th>Systems-Based Practice</th>
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<td>Compare and utilize various ancillary modalities of patient care that are available including physical and occupational therapy, speech therapy, wound care, nutritional education and cardiac rehabilitation.</td>
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Educational Resources
1. [www.uptodate.com](http://www.uptodate.com)
2. [www.epocrates.com](http://www.epocrates.com)
3. [www.emedicine.com](http://www.emedicine.com)
4. ACLS Handbook

6. Cholesterol guidelines: [http://www.heart.org/HEARTORG/Conditions/Understanding-the-New-Prevention-Guidelines_UCM_458155_Article.jsp](http://www.heart.org/HEARTORG/Conditions/Understanding-the-New-Prevention-Guidelines_UCM_458155_Article.jsp)

8. Procedures for Primary Care Physicians, John Pfenniger and Grant Fowler
9. [http://ecg.bidmc.harvard.edu/maven/mavenmain.asp](http://ecg.bidmc.harvard.edu/maven/mavenmain.asp) for ECG reading and examples