

**Coronary Care Unit  
RI Hospital**

**Overview of Rotation**

*Revision Date: July, 2007*

<b>I. GENERAL INFORMATION</b>	
<b>Name of Rotation</b>	CCU
<b>Director</b>	George McKendall, MD
<b>Duration of Rotation</b>	1 month
<b>Location</b>	Rhode Island Hospital
<b>Administrative/Secretarial Contact &amp; Phone</b>	Jane Freer, 444-8041
<b>Location to report on first day of rotation</b>	CCU (10 <sup>th</sup> Floor, Main Bldg)
<b>Resident Study/Resource Area</b>	Cardiology Fellows room

<b>II. FACULTY</b>	
McKendall, Sharaf, Drew, D Abbott, B Abbott, Gilson, Levine, Weigner, Stockwell, Christian, Poppas, Raymond, Robertson,	
<b>Lines of Responsibility (in order):</b> In the CCU, cardiology fellows function as the key component of the medical team whose primary objective is to care for patients with acute cardiovascular illnesses. Fellows will interact with generalists and specialists in all areas. Particularly close interactions are fostered with cardiothoracic surgery and internal medicine residents. The medical team is comprised of an attending, a cardiology fellow, medical residents, medical interns, physician assistants, and medical students. The team is led by the attending, who bears final responsibility for patient management or recommendations for management. The cardiology fellow works closely with the attending and gradually assumes more autonomous decision making responsibilities.	

<b>III. GENERAL GOALS AND EDUCATIONAL OBJECTIVES FOR THIS ROTATION</b>
<p><b>General Goals:</b> During the rotation the fellow will be responsible for the care of the patients in the CCU. This rotation, which spans 2 months in the first year, serves as an intensive introduction to the management of the most acute cardiac problems. The fellow is also responsible for initial evaluation and triage of patients presenting to the Emergency Department with suspected acute cardiac disorders.</p>
<p><b>Objectives:</b> At the end of this rotation, fellows are expected to be facile with:</p> <ul style="list-style-type: none"> <li>• Evaluation, triage, management, and risk stratification of patients with chest pain</li> <li>• Management of patients with stable coronary artery disease and acute coronary syndromes (unstable angina, ST and non ST elevation acute myocardial infarction)</li> <li>• Indications for and complications of non invasive and invasive (including catheterization and EPS) cardiac testing, intervention and revascularization</li> <li>• Primary and secondary prevention of coronary artery disease</li> <li>• Primary and secondary prevention of life threatening arrhythmias</li> <li>• Management of patients with acute and chronic CHF</li> <li>• Recognition and initial management of life threatening arrhythmias</li> <li>• Management of hypertensive urgency and crisis</li> <li>• Management of aortic dissection</li> <li>• ECG interpretation</li> <li>• Indications for use and adverse reactions of common cardiovascular drugs</li> </ul>

- Placement (and subsequent management) of Swan Ganz catheters, temporary intravenous and transcutaneous pacemakers and intra aortic balloon pumps
- Practice evidence based medicine

#### **IV. TOPICS/TEACHING METHODS/MATERIALS USED DURING THIS ROTATION**

Specific competency-based teaching methods and assessment tools are outlined in section IX.

General topics to be covered during this rotation:

1. Management of acute coronary syndromes, heart failure, and serious arrhythmias.
2. Collaborative practice with various levels of caregivers, intensivists, cardiologists, other sub specialists, including cardiac surgeons, PAs, Nursing staff
3. Placement, ongoing monitoring and removal of hemodynamic monitoring catheters and IABP
4. Adjustment of vasoactive and antiarrhythmic medications in a diverse group of critically ill patients
5. Indications for, placement of and ongoing monitoring of temporary pacing catheters
6. Understand the indications for, interpretation and application of various non-invasive tests
7. Understand the indications for acute cardiac catheterization in the critically ill patient.
8. Triage of patients who with potential acute cardiac illness.
9. Identify and treat cardiac arrhythmias and know the indications for electrophysiology testing and devices in the critical care patient.

#### **Principal teaching methods (see section IX):**

Clinical teaching (A)

Clinical experiences (B)

Performance feedback

Monthly evaluations (C1)

Semiannual evaluations (C2)

Conferences: CCU conference (D)

**Educational materials provided/referred to the resident:** A variety of texts and electronic educational materials are available in the cardiology fellows room. Although there are many written and electronic references for patients with acute cardiac disorders requiring CCU admission, a valuable complete resource is the American College of Cardiology website, [www.acc.org](http://www.acc.org). This website allows access to well-written, frequently updated clinical guidelines.

#### **Guidelines that are suggested include:**

- ST- Elevation Myocardial Infarction, 2004
- Unstable Angina and Non ST – Segment Elevation MI, 2002
- Management of patients with Chronic Stable Angina, 2003
- Management of patients with Valvular Disease, 2000
- Perioperative Cardiovascular Evaluation for Noncardiac Surgery, 2002
- Bethesda Conference Report: Preventive Cardiology, 2002
- Exercise Testing, 2002
- Implantation of Pacemakers and Antiarrhythmia Devices, 2002
- Echocardiography, 2003
- Cardiac Radionuclide Imaging, 2003
- Chronic Heart Failure, 2001
- Atrial Fibrillation, 2001
- Coronary Artery Bypass Surgery, 2004
- Cardiovascular Disease Prevention in Women, 2004

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**V. EVALUATIONS**

A. Evaluation of the resident's successful completion of the above goals will be carried out primarily by the attending physicians, with additional input from residents, students, and peers (see section IX). Assessment methods include:

- Clinical performance ratings (1)
- Focused observation (2)
- 360 assessment
- Nursing evaluations (3A)
- Peer evaluations (3B)
- Resident/student evaluations (3C)
- Faculty/staff meetings (4)
- Project reports (portfolio: CCU conference) (6B)

B. Residents will evaluate the on an annual basis.

**VI. RESPONSIBILITY OF ATTENDING ON ROTATION**

The attending physicians participating in this rotation will be responsible for the direct supervision of the fellow at all times. The attending will review and confirm the historical and physical findings that have been documented by the fellow/resident. The attending will review and discuss the care plan and recommendations and review pertinent testing results with the fellow. The attending will supervise unit based procedures. The ultimate responsibility for the care of the patient lies with the attending physician.

**VII. RESPONSIBILITY OF RESIDENT ON ROTATION**

The fellow/resident will be responsible for

- 1) Initial evaluation of all patients presenting to the CCU.
- 2) Triage of patients with suspected acute cardiac illness.
- 3) Supervision of housestaff in the implementation of the management plan

**VIII. CONFERENCE AND CLINIC SCHEDULE SPECIFIC TO THIS ROTATION**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AM	CCU Rounds	CCU Rounds	CCU Rounds	CCU Rounds	CCU Rounds	CCU Rounds
PM	CCU signout	CCU signout	CCU Conference (noon; periodic) CCU signout	CCU signout	CCU signout	CCU signout

**IX. CORE COMPETENCY CURRICULUM**

Competency Category	Specific Goals	Teaching & Assessment (sections IV, V above)
Medical Knowledge	Demonstration of investigatory and analytical thinking relevant to the clinical rotation	A,B,C -- 1,2,4,6B
	Acquisition the appropriate background relevant to specific rotations	C -- 1,2
	Application of basic and population science to practice	A,B -- 1,2
Patient Care	Develops effective interactions with patients and families	A,B,C -- 1,2,3A,4

	Obtains appropriate information concerning the patient (history, past medical records, examination)	B -- 1,2,4
	Knowledge of the appropriate indications for diagnostic and therapeutic cardiology procedures	A,B -- 1,2
	Develops sound management plans and/or recommendations to consulting services	A,B -- 1,2,4
	Demonstration of a teamwork approach to patient care	B,C -- 2,3B,3C,4
	Procedures: Cardioversion, Swan Ganz, IABP, TPM	A,B -- 2,5
	Procedures: ECG, Telemetry	B,D -- 2
Practice-Based Learning & Improvement	Demonstration of self-critical thinking and motivation to improve	B,C -- 1,2,4
	Teaching skills: Participation in the teaching of students, residents, and others	B,C -- 2,3C,4
	Demonstration of the ability to appraise and assimilate studies in the literature ("Evidence-based medicine")	A,B -- 1,2,6B
	Commitment to act as a patient advocate within the system to achieve optimal medical care and minimize medical error	B -- 2, 3A
Professionalism	Demonstration of respect and compassion for patients, including sensitivity to cultural and social issues	B,C -- 2,3A,3B
	Commitment to professional responsibilities and ethics	B,C -- 1,2,4
	Commitment to ongoing professional development	B,C,D -- 1,2,4,6B
Interpersonal & Communication	Effective creation of therapeutic relationships with patients	A,B -- 2,3A
	Effective communication of medical information by verbal and written means	A,B -- 1,2,3A,3B,4
	Commitment to developing effective relationships with referring clinicians, hospital services, and colleagues	A,B,C -- 1,2,3B,3C,4