

I. Educational Purpose of Rotation:

The purpose of the Cardiology A rotation is to expose and instill a reasonable working knowledge and problem-solving skill-set required to optimally care for patients requiring cardiac care.

A) Knowledge - Over the course of three years, the resident will develop an increasingly in-depth knowledge with regard to the pathogenesis, clinical manifestations, natural history, diagnosis, and management of all facets of cardiac illness. On the CCU service and the general medical inpatient service, this will include problems involving, but not limited to: ischemic heart disease, valvular heart disease, congestive heart failure, dysrhythmias and risk factor modification. The incremental knowledge gained is experiential. For every patient admitted to the resident's service, he/she is expected to know all the facts about and learn (through the teaching by more senior residents, attending staff, and readings), in detail, about all of the medical and related psychosocial problems experienced by that patient.

B) Skills: From the experiences gained during the rotation, the resident will:

1) Refine his/her skills in medical history taking (especially synthesizing family members' reports, EMS records and ED records) and physical diagnosis, 2) Learn to prioritize tasks, 3) Use time efficiently, 4) Learn the principles of medical decision making, 5) Learn to cost-effectively order diagnostic studies and provide therapeutic interventions.

C) Attitudes: Desirable attitudes in the trained internist. He/she should:

1) Assume primary responsibility for patients' welfare – knowing every detail of their history (including old records), physical examination, laboratories, diagnostic/therapeutic plan, 2) Access the opinions of attending physicians and consultants ONLY AFTER thinking about a case and offering their best effort at synthesis and a plan, 3) Appreciate the role of the general internist, his capabilities as well as limitations with respect to caring for critically ill patients, 4) Value helping each patient to achieve the best attainable level of physical, mental, and social functioning, 5) Value cost-effective medicine, 6) Value the role of medical ethics in the medical decision making process.

PGY1 Objectives

Patient Care

- Gathers pertinent and accurate patient data including old and EMS records
- Written work is complete and organized in a problem-centered format
- Careful follow-up of patient's problems
- Begins to develop appropriate problem-based diagnostic and therapeutic plans
- Organized long and 5-minute oral presentations
- Provides clear instructions about plans of care and follow-up
- Procedures – Competently performs basic procedures¹ (ABG, bladder catheterization, gynecologic exam) and practices proper sterile technique.

Knowledge

- Commitment to CME
- Demonstrates adequate PGY level knowledge for common inpatient and outpatient medical conditions
- Begins to apply knowledge appropriately and effectively

Communication

- Caring, respectful behaviors
- Works well with team and consultants; follows and acknowledges all disciplines' input
- Works and communicates effectively and collegially with nursing and ancillary staff
- Teaches medical students

Practice-based learning

- Appreciates the limitations of his/her medical knowledge and asks for help when needed
- Independent study and learns from mistakes
- Responsive to constructive criticism
- Able to use the computerized patient database (Powerchart) effectively to obtain information
- Capable of performing a literature search to obtain some medical information

Professionalism

- Vigorous patient advocate; knows ALL the facts about patients
- Honesty, reliability, responsibility, cooperativeness and timeliness
- Shows respect, compassion, and integrity in working with patients, peers and attendings, and hospital staff
- Follows the rules of the residency program (e.g., work hour regulations)

Systems-based practice

- Actuates care and discharge plans expeditiously and completely
- Participates constructively with disposition planning

PGY2 Objectives

The PGY2 will demonstrate mastery of the objectives outlined for the PGY1 rotation AND additionally:

Patient Care

- Identifies, prioritizes and synthesizes patient's problems appropriately
- Appreciates and considers alternatives for diagnoses and treatment
- Able to independently develop and carry out management plans in MICU, but always validates/confirms with attending first
- Orders appropriate tests and interprets results of tests and procedures properly
- Triage patients to appropriate location; primary admitting caregiver for patients requiring 3:1 nursing
- Participates constructively on the hospital REV team
- Procedures - Knowledge of procedural indications, complications, and contraindications; obtains informed consent; receives supervision of procedure when skill level requires; documents a complete procedure note in chart and procedure log¹

Knowledge

- Commitment to CME
- Integrates progressive knowledge in Bayesian synthesis
- Understands and responds to social and behavioral issues

Communication

- Ensures that the primary physician and MICU attending are kept apprised of the patient's status as appropriate

Practice-based Learning

- Appreciates limitations of his/her medical knowledge and asks for help when needed
- Continues to seek to improve self as a physician
- Addresses and uses evidence from primary scientific studies to guide patient care; provides team with at least one original article

Professionalism

- Understands ethical principles pertaining to medical care
- Sensitive to patient's culture, age, gender, and disabilities

Systems-based Learning

- Appreciates the resources within the hospital and mobilizes them efficiently to serve the needs of patients
- Shows awareness of cost and length of stay issues and the need to be prudent in utilizing resources

PGY3 Objectives

The PGY3 will demonstrate mastery of the objectives outlined for the PGY1&2 rotation AND additionally:

Patient Care

- Shows reasonable judgement in ambiguous situations (i.e., calls for help appropriately).
- Thoughtfully adjusts management plans according to information obtained in follow-up
- Directs and supervises patient care and teaching of junior residents/students.
- Procedures – Demonstrates facility with invasive procedures and teaches proper techniques.

Knowledge

- Commitment to CME
- Applies progressive knowledge sufficient to manage with minimal supervision
- Demonstrates analytical thinking and ability to develop well-formulated differential diagnoses for patients with multiple problems; independent Bayesian synthesis
- Communication

Practice-based Learning

- Effectively discusses end of life care issues with patients and their families
- Acts as a consultant in internal medicine to other clinical services
- Provides the team with more than one original article and/or review articles that inform diagnosis or management of active patients

Professionalism

- Appreciates the limitations of his/her medical knowledge and asks for help when needed

Systems-based Learning

- Aware of community resources that can assist and enhance patient care objectives
- Actively balances quality of patient care with costs and length of stay

II. Topics that the trainee is expected to master

1. Ischemic Heart Disease
 - a. Acute ST segment elevation Myocardial Infarction
 - b. Non-ST elevation Myocardial Infarction
 - c. Unstable Angina
 - d. Post-angioplasty care
 - e. Evaluation of Chest Pain
 - f. Discharge planning, medication and instruction.
2. Congestive Heart Failure
 - a. Acute Pulmonary Edema
 - b. Cardiogenic Shock
 - c. Work-up of Ischemic versus Non-Ischemic Cardiomyopathy
 - d. Discharge planning, medication and instruction.
3. Valvular Heart Disease
 - a. Aortic Stenosis
 - b. Aortic Insufficiency
 - c. Mitral Insufficiency
 - d. Obstructive Cardiomyopathy
4. Dysrhythmias
 - a. Ventricular Tachycardia/Fibrillation
 - b. Atrial Fibrillation
 - c. Supraventricular dysrhythmias
 - d. Temporary Pacemakers
5. Risk Factor Modification
 - a. Hyperlipidemia
 - b. Hypertension
 - c. Smoking Cessation

III. Principal Teaching Methods: Residents will learn by having progressively increasing responsibilities for the care of the inpatients on the CCU service. The PGY-1 will perform admission history and physicals, write all orders on his/her patients, formulate a problem list with appropriate differential diagnosis and management plans. But his/her primary role is “reporter” – to gather the evidence and begin thinking about synthesis. PGY-2 and –3 residents are expected to formulate comprehensive differential diagnoses, diagnostic plans and therapeutic plans THEN share these with attending physicians-of-record for approval/fine-tuning. In addition to these constant, daily interactions (resident-intern, resident-attending), trainees will also learn through:

1. Teaching Attending and Combined Management Rounds - Daily (8-12:00)
2. Noon conference lecture series – 5 days/week, July-September is a repeating course of core topics, while October-June includes specialty and sub-specialty lectures comprising a 2-year cycle that covers most fundamental topics for each discipline.
3. Electrocardiography interpretation sessions – 5 days/week (afternoons); ALL residents are expected to attend at least two sessions each week and keep records of electrocardiograms they have reviewed.

IV. Patient Characteristics – All patients admitted to the Cardiac Care Unit. These patients include nearly equal numbers of men and women, ranging in age from 18 to over 100 years and of average age in the mid 60’s and average APACHE II score of 12-16. Roughly 10-20% of patients have no insurance of Medicaid. The remaining have Medicare or private insurance. The socioeconomic demographic mirrors that of the community (20-30% poor, 70-80% middle class). Patients are admitted with a broad array of multiple and complex medical illnesses. Bridgeport Hospital also serves as a referral center for cardiac catheterization, coronary bypass procedures and valve replacement/repair. So residents are exposed to an abundance of cases of acute coronary syndromes, valvular failure and congestive heart failure. Because Bridgeport is the largest city in Connecticut and serves as the point of first contact for many patients, residents also have the opportunity to identify many rare cardiologic diseases.

V. Cardiology technical essentials for PYG 1:

PGY 1: Electrocardiography

- During Cardiology A rotation, each PGY 1 HO will have one session with the ECG staff during which they will review:
- The correct manner by which to attach electrodes to the skin;
- The correct placement of electrodes on the chest wall to record an ECG;
- How to enter demographic information so that recorded waveforms are stored in the ECG computer database;

- How to record and print out 12-lead ECG and rhythm strips of 3 and 12-lead configuration
- Each HO will receive written certification that this session has been completed.
- Each HO will be asked to maintain a log that documents the required clinical activities. Proper documentation is expected and its fulfillment will form a portion of the assessment of the house officer's professionalism.

VI. References

Trainees are expected to complete readings in applicable chapters of Harrison's, *Principles of Internal Medicine*, that apply to active patients and all sections relevant to coronary artery disease. Other recommended references include: Hurst's, *The Heart*, and Braunwald's, *Heart Disease*. Computerized data-bases available throughout the hospital at every terminal: *Up-to-Date* and *MD-Consult*. All trainees are expected to use one of these or similar resources to master topics that are germane to their patients every day. In addition, PGY-2's and -3's are expected to support the teams with original articles, using Pub-Med or Ovid searches (also available hospital-wide), that are applicable to and inform patients' care.

VII. Methods of Evaluation

Residents and interns are evaluated by their teaching and work-rounds attending physicians. Residents are evaluated by Richardson 9,10, & MICU nurses and by disposition planners, once annually.

Residents and interns will evaluate each other, the quality of the rotation, their work-rounds attending physician and the degree to which they had the opportunity to meet objectives (listed above) every rotation. Resident evaluations of attending physicians will be provided in aggregate to attending physicians once/yearly with no identifying information to maintain residents' anonymity. Residents will evaluate the wards rotations once annually in early June (as part of the yearly curriculum review). When students are on-service, residents and interns will provide timely evaluations of the students' performance.

Patient Care

	Unsatisfactory	Satisfactory	Superior						
• Gathers pertinent and accurate patient data including old and EMS records	1	2	3	4	5	6	7	8	9
• Written work is complete and organized in a problem-centered format	1	2	3	4	5	6	7	8	9
• Careful follow-up of patient's problems	1	2	3	4	5	6	7	8	9
• Begins to develop appropriate problem-based diagnostic and therapeutic plans	1	2	3	4	5	6	7	8	9
• Organized long and 5-minute oral presentations	1	2	3	4	5	6	7	8	9
• Provides clear instructions about plans of care and follow-up	1	2	3	4	5	6	7	8	9
• Procedures – Competently performs basic procedures (ABG, bladder catheterization, gynecologic exam) and practices proper sterile technique	1	2	3	4	5	6	7	8	9
• Approaches ECG interpretation in an appropriate and systematic manner and begins to interpret common disorders accurately	1	2	3	4	5	6	7	8	9

Medical Knowledge

• Commitment to CME	1	2	3	4	5	6	7	8	9
• Demonstrates adequate knowledge for common inpatient and outpatient medical conditions	1	2	3	4	5	6	7	8	9
• Begins to apply knowledge appropriately and effectively	1	2	3	4	5	6	7	8	9

Interpersonal and Communication Skills

• Caring, respectful behaviors	1	2	3	4	5	6	7	8	9
• Works well with team and consultants; follows and acknowledges input from all disciplines	1	2	3	4	5	6	7	8	9
• Works and communicates effectively and collegially with nursing and ancillary staff	1	2	3	4	5	6	7	8	9
• Teaches medical students	1	2	3	4	5	6	7	8	9

Practice-based learning and Improvement

• Appreciates the limitations of his/her medical knowledge and asks for help when needed	1	2	3	4	5	6	7	8	9
• Independent study and learns from mistakes	1	2	3	4	5	6	7	8	9
• Responsive to constructive criticism	1	2	3	4	5	6	7	8	9
• Able to use the computerized patient database (Powerchart) effectively to obtain information	1	2	3	4	5	6	7	8	9
• Capable of performing a literature search to obtain some medical information	1	2	3	4	5	6	7	8	9

Professionalism

• Vigorous patient advocate; knows ALL the facts about patients	1	2	3	4	5	6	7	8	9
• Honesty, reliability, responsibility, cooperativeness and timeliness	1	2	3	4	5	6	7	8	9
• Shows respect, compassion, and integrity in working with patients, peers and attendings, and hospital staff	1	2	3	4	5	6	7	8	9
• Follows the rules of the residency program (e.g., work hour regulations)	1	2	3	4	5	6	7	8	9
• Attends the formal educational venues within the residency	1	2	3	4	5	6	7	8	9
• Maintains log of patient evaluations, physical exam review and procedure	1	2	3	4	5	6	7	8	9

observations	1	2	3	4	5	6	7	8	9
• Attends ECG session	1	2	3	4	5	6	7	8	9

Systems-based Practice

• Actuates care and discharge plans expeditiously and completely	1	2	3	4	5	6	7	8	9
• Participates constructively with disposition planning	1	2	3	4	5	6	7	8	9
• Uses evidence based hospital protocols (eg. pneumonia, CHF, COPD order sheets) the chosen grade times 10% of time when appropriate.	1	2	3	4	5	6	7	8	9

Comments:

These objectives were discussed with the resident at the beginning of the rotation	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
The trainee has successfully achieved the above-listed objectives of this rotation.	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
This evaluation was discussed with the resident by the end of the rotation	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

Name/Electronic Signature of Attending Physician _____

EVALUATION OF ATTENDING PHYSICIAN

Attending Physician: _____ Service/Rotation: _____

Evaluator: _____ Month/Year: _____

For each of the following criteria, please rate (✓) the attending physician whose rotation you have just completed.

	Not Observed	Marginal	Satisfactory	Very Good	Excellent
<u>Availability:</u>					
● Was prompt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Adhered to rounds and consult schedules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Kept interruptions to a minimum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Spent enough time on rounds; was unhurried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Encouraged active housestaff participation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

	Not Observed	Marginal	Satisfactory	Very Good	Excellent
<u>Teaching:</u>					
● Stated goals clearly and concisely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Kept discussions focused on case or topic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Asked questions in non-threatening way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Used bedside teaching to demonstrate history-taking and physical skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Emphasized problem-solving, (thought processes leading to decisions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Integrated social/ethical aspects of medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Stimulated team members to read, research, and review pertinent topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Accommodated teaching to actively incorporate all members of team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Provided special help as needed to team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

	Not Observed	Marginal	Satisfactory	Very Good	Excellent
<u>Patient Care and Professionalism:</u>					
● Placed the patient's interests first	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Displayed sensitive, caring, respectful attitude toward patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Established rapport with team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Showed respect for residents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Served as a role model	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Was enthusiastic and stimulating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Demonstrated gender sensitivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Recognized own limitations; was appropriately self-critical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Encouraged housestaff to bring up problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Medical Knowledge:

	Not Observed	Marginal	Satisfactory	Very Good	Excellent
● Demonstrated broad knowledge of medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Was up-to-date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Identified important elements in case analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Used relevant medical/scientific literature in supporting clinical advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Discussed pertinent aspects of population and evidence-based medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Practice-Based Learning and Improvement:

	Not Observed	Marginal	Satisfactory	Very Good	Excellent
● Explicitly encouraged further learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Motivated residents to self-learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Evaluated residents ability to analyze or synthesize knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

System-Based Practice:

	Not Observed	Marginal	Satisfactory	Very Good	Excellent
● Reviewed expectations of each team member at beginning of rotation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Provided useful feedback including constructive criticism to team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
● Balanced service responsibilities and teaching functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Recommendations:

	<u>Yes</u>	<u>No</u>
● Would you recommend that this faculty member continue to serve as an attending physician for the training program?	<input type="checkbox"/>	<input type="checkbox"/>
● To further enhance professional development, would you recommend that this faculty member receive formal training in teaching and faculty education?	<input type="checkbox"/>	<input type="checkbox"/>

Overall Comments: _____

