

**Rapid Response Team
Core Curriculum 09/17/08**

By Jeanne Carey, M.D., Senior Associate Program Director

**With: Paul Mayo, M.D.
Seetal Mewar, M.D.
Hiroshi Sekiguchi, M.D.
Calvin Hwang, M.D.**

Supervision of Residents and Lines of Responsibilities:

LEVEL OF SUPERVISION BY FACULTY

- The educational program and patient care of the Department of Medicine are organized under the direct and general supervision of the Chairman of the Department, the Residency Program and Associate Program Directors and the Division Chiefs and Program Directors of the Subspecialty Programs. In addition, individual key faculty members and "voluntary" teaching attendings provide direct and general supervision of the fellows, residents and students. In an emergency situation, when no supervising physician is available at the bedside, the resident is expected to perform lifesaving procedures and institute lifesaving therapies. Non-emergent care takes place under direct, immediate and general supervision. Attending physicians supervise all patient care provided by residents and fellows. Documentation of faculty supervision of resident/fellow care is required within 24 hours of patient admissions to the hospital or consultation in the hospital. Subsequent documentation depends on the acuity of care and changes in patient management.

Emergency Situations

- In situations where immediate emergency medical care is required to preserve life or prevent serious impairment of the health of the patient, all residents shall be permitted to do everything possible within the scope of their knowledge and skill to save the life of the patient or to save the patient from serious harm. Attending staff or senior house officers must be consulted as soon as possible.

THE ACGME STATEMENT ON KEY RESPONSIBILITIES for developing and implementing the academic and clinical program:

- Prepare and implement a written statement outlining the educational goals of the program with respect to knowledge, skills, and other attributes of residents for each major assignment and each level of the program.
- Should include the educational purpose; teaching methods; the mix of diseases, patient characteristics, and types of clinical encounters, procedures, and services; reading lists, pathological material, and other educational resources to be used; and a method of evaluation of resident competence;
- Must define the level of residents' supervision by faculty members in all patient-care activities; and
- Should be reviewed and revised at least every three years by faculty members and residents to keep it current and relevant.

**Rapid Response Team
Core Curriculum 09/17/08**

- Preparing and implementing a comprehensive, well-organized, and effective curriculum, both academic and clinical, which includes the presentation of core specialty knowledge supplemented by the addition of current information.
- Providing residents with direct experience in progressive responsibility for patient management.

ACGME SIX GENERAL COMPETENCIES

Patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health .

Medical Knowledge about established and evolving biomedical, clinical, and cognate (e.g., epidemiological and social-behavior) sciences and the application of this knowledge to patient care.

Practice-based learning and improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care.

Interpersonal and communication skills that result in effective information exchange and collaboration with patients, their families, and other health professionals.

Professionalism, as manifested through a commitment out carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse population.

Systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

ACGME REQUIREMENTS FOR THE WRITTEN CURRICULUM

PROGRAM GOALS AND EDUCATIONAL PURPOSE

Include for each rotation or major learning experience

- The educational purpose
- Teaching methods
- The mix of diseases, patient characteristics, and types of clinical encounters, procedures and services;
- Reading lists, pathological material, and other educational resources to be used;
- Method of evaluation of resident performance
- Include a description of all required educational and clinical experiences specified in the Program Requirements.
- Include a description the clinical experience in inpatient or outpatient settings.
- Define the level of residents' supervision by faculty members in all patient care activities

Rapid Response Team Core Curriculum 09/17/08

- Integrate medical problems, health promotion, and cultural, socioeconomic, ethical, occupational, environmental, and behavioral issues in most rotations or major learning experiences.
- Include teaching rounds and conferences.
- Indicate that residents care for patients with a wide range of clinical problems in all stages of illness.
- Emphasize the importance of humanistic qualities throughout the residency.
- Document explicit methods of evaluation of residents' performance and the educational effectiveness of the program.
- Be revised by faculty members and residents to keep it current and relevant.

Facilities and Resources

Beth Israel Medical Center, Petrie Division

Attending Physicians and fellows from the Division of Pulmonary, Critical Care and Sleep Medicine

Faculty Organization and Staff

Supervising Attending Physicians and supervising fellows from the Division of Pulmonary, Critical Care and Sleep Medicine

The Pulmonary, Critical Care and Sleep Medicine fellow assigned to the Respiratory Care (Step-down) Unit serves as the immediate supervisor for the residents on the Rapid Response Team (RRT) rotation.

Contact Numbers

Beth Israel Medical Center Medical Intensive Care Unit (MICU) 212-420-2937

Beth Israel Medical Center Respiratory Care (Step-down) Unit phone ext. 7374

Pager number for the Pulmonary, Critical Care fellow on call: 10850

Schedule & Description of Clinical Activities

Daily work hours are 7:00 am to 7:00 pm on weekdays.

The resident serves as the RRT leader after 5:00 pm. From 7:00 am – 5:00 pm, the Pulmonary, Critical Care and Sleep Medicine fellow assigned to the Respiratory Care (Step-down) Unit serves as the RRT leader.

The resident also serves as the MICU evaluator for non-Emergency Department MICU consultations from 7:00 am to 7:00 pm under the supervision of the Pulmonary/Critical Care attendings and fellows.

Outcomes: Demonstrates competency in the following goals and objectives:

Leadership in emergency situations and codes

Decision to admit to the Intensive Care Unit

Sepsis syndrome

Respiratory failure

Pulmonary edema

Pathophysiology of shock

**Rapid Response Team
Core Curriculum 09/17/08**

Pulmonary embolism
Establishment and management of an open airway
Hypertensive emergency/urgency
Medication overdose
Gastrointestinal bleeding and other bleeding disorders
Neurologic decompensation and emergencies
Delirium and agitation
Chest pain
Fever
Acute worsening of the conditions of immunocompromised patients
Disturbances of fluid, electrolyte and glucose balance

Educational Purpose, Rationale or Value

Patient Care

Recognize the clinical presentation of shock and the pre-shock state
Manage shock and the pre-shock state and understand how to target intervention based on the type: (distributive, hypovolemic, cardiogenic, and obstructive shock)
Develop the skill set required for the initial stabilization of hemodynamically unstable patients
Develop proficiency in life-saving procedures, including chest compressions, venous blood draw, ABG, NG tube placement, and central line placement
Develop the ability to function in a systematic organized manner in the setting of an emergency situation

Medical Knowledge

Learn the universal principles of resuscitation, e.g. airway, breathing and circulation
Learn the indications, technique, risks and complications of life-saving procedures
Learn how to utilize and analyze defibrillator, percutaneous pacemaker, telemetry monitoring, EKG, ABG, and pertinent laboratory data
Learn the indications and pharmacokinetics of frequently used medications in the management of hemodynamically unstable patients, including vasopressors, antiarrhythmics, antihypertensives, sedatives, narcotics and their antidotes

Basic science: learn the pathophysiology of the various types of shock

Practice-Based Learning

Apply medical knowledge and techniques acquired in simulation training to patient care, with the goals of delivering outstanding patient care and continuously improving the quality of patient care
Incorporate feedback from the primary team and from the members of the RRT team into patient care
Apply evidence from the current medical literature
Understand the appropriate ways to use the following information resources, with emphasis on the advantages and disadvantages of each:

UpToDate

Rapid Response Team Core Curriculum 09/17/08

The Washington Manual and other pocket handbooks
Primary journals
Medline searches
Beth Israel Medical Center Clinical Pathways (e.g., ACS, Syncope, etc.)
Clinical guidelines from the American College of Cardiology and the American College of Chest Physicians

Interpersonal & Communication

Develop the fundamentals of bedside leadership
Develop proficiency in crew resource management during an emergency
Communicate effectively with the primary team and the accepting hospital staff with a multi-disciplinary team approach
Show an ability to provide clear, thorough but concise, safe hand-off of patients to other providers
Recognize the cultural and/or emotional factors affecting the patient and his or her family
Demonstrate an ability to explain diagnostic possibilities and evaluation/treatment plans to patients
Appropriate use of interpreters for non-English speaking patients and families

Professionalism

Write a concise RRT event form for the patient being evaluated
Clearly document the relevant history, physical examination, laboratory and other diagnostic data, assessment, treatment and management plans in the medical chart
Communicate professionally, sensitively and respectfully with the patient, the patient's family, and all involved health care providers

Systems-Based Practice

Understand the flow of the specific steps involved in triage, treatment, and intervention in the patient care
Develop triage skills while dispositioning the patient into the appropriate service and level of care, e.g. MICU, CCU, or Step Down Unit.
Coordinate the patient's care with an integrated multi-disciplinary team approach
Laboratory medicine: choose and order appropriate diagnostic tests and procedures

Principal Teaching Methods:

Teaching takes place during a four-week rotation on the RRT service.
The resident's daily work hours are 7:00 am to 7:00 pm on weekdays.
The resident serves as the RRT leader after 5:00 pm. From 7:00 am – 5:00 pm, the Pulmonary, Critical Care and Sleep Medicine fellow assigned to the Respiratory Care (Step-down) Unit serves as the RRT leader.
The resident also serves as the MICU evaluator for non-Emergency Department MICU consultations from 7:00 am to 7:00 pm under the supervision of the Pulmonary/Critical Care attendings and fellows.

Rapid Response Team Core Curriculum 09/17/08

Pulmonary/Critical Care attendings and fellows provide the resident with constructive, timely feedback regarding the resident's performance in each RRT event and in the MICU evaluations.

The resident attends MICU morning report and participates in daily rounds on new admissions to the MICU.

When the RRT resident is not participating in an RRT or performing a MICU evaluation, the RRT resident remains in the MICU and assists MICU residents with procedures or other interventions for patient care.

The resident attends Internal Medicine house staff conferences, including Morbidity & Mortality conferences as well as Pulmonary, Critical Care and Sleep Medicine conferences.

Teaching Rounds & Conferences

The RRT resident joins MICU team for daily rounds on new admissions to the MICU.

The RRT resident is required to present cases at the Internal Medicine house staff's Morbidity & Mortality conference.

The resident attends Thursday morning Pulmonary, Critical Care and Sleep Medicine's Grand Rounds lecture series

The resident is encouraged to research interesting cases and participate in writing case reports, abstracts, or manuscripts

Mix of Diseases:

Sepsis

Respiratory failure

Pulmonary edema

Shock

Pulmonary embolism

Gastrointestinal bleeding and other bleeding disorders

Altered mental status

Seizures

Delirium

Agitation

Chest pain

Hypertensive emergency/urgency

Fever

Medication overdose

Immunocompromised patients, including those with AIDS and those who have received chemotherapy for malignancies

Disturbances of fluid, electrolyte and glucose balance

Severe allergic reactions, including anaphylaxis

Method of Evaluation

The resident will be assessed on his or her performance during the one month rotation.

Areas that are emphasized include the resident's ability to present the relevant history and physical examination for each case, triage the patients appropriately and

**Rapid Response Team
Core Curriculum 09/17/08**

communicate effectively and professionally with the patient, the patient's family and the involved patient care teams. The resident's participation in MICU rounds will also be assessed. Demonstration of improved fund of knowledge and of improved critical care and leadership skills are expected.

The RRT residents are evaluated by the Pulmonary/Critical Care fellows on the Meditrek on-line evaluation system. This evaluation system addresses the residents' performance in the six ACGME Core Competencies.

Types of Clinical Encounters

The RRT resident will encounter a broad spectrum of diseases in a diverse patient population. Residents approach patients as bedside consultants. Frequently, the resident will encounter hemodynamically unstable patients in a pre-shock or shock state. In such cases, the resident is required to stabilize the patients and to subsequently triage them appropriately. In addition, the RRT resident performs and assists in procedures, including ABGs, venous blood drawing and central venous line placement.

Principal Ancillary Education Materials, Reading lists, and Pathologic material:

"The ICU Book, 3rd edition" by Paul L. Marino and Kenneth M Sutin, Lippincott Williams & Wilkins (September 2006)

"Procedures and Techniques in Intensive Care Medicine" by Richard S. Irwin, James M. Rippe, Fredrick J Curley, and Stephen O Heard. Lippincott Williams & Wilkins; 3rd edition (April 1, 2003)

UpToDate

The Washington Manual and other pocket handbooks

Primary journal articles

Integration of medical problems with health promotion and cultural, socioeconomic, ethical, occupational, environmental and behavioral issues:

Integration of medical problems with health promotion and cultural, socioeconomic, ethical, occupational, environmental and behavioral issues is a part of daily attending rounds in the MICU. These issues are further addressed in the resident's discussions with his or her supervising attendings and fellows. Ethics consults are available if the resident and/or the MICU team encounter a situation in which it is deemed that the input of the Ethics Committee would be helpful.

Demonstration of care for patients with a wide range of clinical problems in all stages of illness:

**Rapid Response Team
Core Curriculum 09/17/08**

Residents demonstrate care for their patients directly and also through their participation in rounds and in other discussions of their cases. Residents must display an ability to care for patients with a wide range of clinical problems in all stages of illness.

Curriculum should be revised regularly by faculty:

The RRT curriculum is reviewed and revised regularly by the Program Directors, under the supervision of the Chairman of Medicine, and in consultation with the Director of Graduate Medical Education as needed.

The Chief Medical Residents and the house staff themselves have clear lines of communication through which to provide the Program Directors and Chief Residents with feedback on the RRT rotation.