Educational Background and Purpose

Graduate training exposure to critically ill patients is required of all Internal Medicine residents. The advancement in methods of life support and the accelerating growth in the aging population have been associated with escalating demand for critical care services. This trend is likely to continue in the future. Most of the critically ill patients admitted to the intensive care units (ICU) in the U.S. are presently managed by their primary physicians. Although critical care consultants are readily available in many hospitals, it is unlikely that in the near future involvement of critical care specialists in patient care will exceed present state, due to both increased demands and limited specialist supply. It is thus crucial that trainees in all specialties assuming responsibility for the care of the critically ill patient are well equipped to provide appropriate, high quality care.

The nature of critical illness is often complex enough to benefit from a multidisciplinary team approach. Tremendous explosion of knowledge and technology in critical care has occurred, commonly involving several specialty lines. However, major variations in resident training continue to occur and are in part due to the fact that most training programs limit the resident physician's intensive care unit experience to managing patients within that program's specialty.

This document outlines the skills, knowledge and professional attitudes expected at each level of resident training and upon completion of the residency program, in order to be able to formulate and initiate a treatment plan for the critically ill patient.

Educational Goals

Upon completion of residency training, the resident will have developed a measurable quantity of knowledge, learned a set of observable skills, demonstrated adequate decision making, and possess a caring and compassionate attitude for patients who are critically ill. Attainment of these skills is not to be necessarily misconstrued as conveying the ability to be an independent subspecialty-level practitioner for critically ill and injured patients.
Specifically, on completion of residency training, each resident physician will be able to perform the following:

**General Goals**

- Diagnose, stabilize and properly triage patients with impending organ failure (respiratory, cardiac, neurologic, hepatic, gastrointestinal, hematologic, renal, etc.).
- Identify the need for and initiate cardiopulmonary resuscitation.
- Diagnose and prevent hemodynamic instability and/or initiate treatment for cardiogenic, traumatic, hypovolemic, and distributive shock.
- Identify and initiate treatment for life-threatening electrolyte and acid-base disturbances.
- Suspect and initiate treatment for common poisonings.
- Use data from appropriate invasive and noninvasive monitoring devices to titrate therapy in an ICU.
- Understand basic infection control techniques.
- Understand basic nutrition support principles.
- Understand basic sedation and analgesia principles.
- Understand basic concepts of therapeutic decision making and medication safety.
- Recognize, use and help integrate the unique skills of ICU nurses and ancillary personnel in caring for critically ill patients into the multiple-professional team model.
- Identify when a patient requires treatment best delivered in an ICU, and the need for consultation and/or primary care by a Critical Care specialist.
- Seek consultation, when appropriate, with specialty physicians in managing complex ICU problems.
- Consider ethical issues and patients’ wishes in making treatment decisions.
- Communicate effectively with families and all members of the healthcare team about ICU capabilities and patient-specific issues.
- Communicate with and support patients, their families, and all members of the healthcare team through the physical and psychological complexities of critical illness.
- Maintain good relationships with other healthcare providers.
- Support initiatives to improve care of critically ill patients.
- Understand the need for patient safety monitoring and error reduction strategies.
- Understand and ensure compliance with institutional and unit policies and procedures as well as regulatory policies from accreditors, regulators, and payers.
Specific Educational Categories

Specific Credentials

All housestaff should achieve and maintain Advanced Cardiac Life Support (ACLS) provider status throughout training.

Specific Cognitive Skills, Knowledge and professional Attitudes

A. Cardiovascular

1. Recognition and Acute Management of

Shock (all forms)
Cardiogenic Pulmonary Edema
Hypertensive emergencies
Acute cardiomyopathies
Acute valvular insufficiency
Cardiac Arrhythmias
Aortic dissection
Venous thromboembolism
Cardiac tamponade
Acute Coronary Syndromes

2. Principles and application of

Vasoactive and inotropic therapy
Arterial, central venous, and pulmonary artery catheterization monitoring
Cardiovascular physiology in the critically ill patient

B. Respiratory

1. Recognition and Acute Management of

Hypoxic states
Acute and chronic respiratory failure
Status asthmaticus
Acute respiratory distress syndrome (noncardiogenic/capillary leak pulmonary edema)
Upper airway obstruction, including foreign bodies and infection

2. Principles and application of

Oxygen therapy
Mechanical ventilation (invasive and noninvasive) including indications, modes,
complications, and weaning

3. Use of
   Pulmonary function tests, including bedside spirometry
   Arterial blood gas analysis

**C. Renal**

1. Recognition and Acute Management of
   - Fluid and electrolyte disturbances
   - Acid-base disorders
   - Renal failure

2. Principles and application of
   - Drug dosing in renal failure
   - Fluid and electrolyte therapy in the critically ill patient
   - Dialysis

**D. Central and peripheral Nervous System**

1. Recognition and Acute Management of
   - Coma and other alterations of sensorium
   - Drug overdose & poisoning
   - Brain death evaluation
   - Intracranial vascular accidents
   - Status epilepticus
   - Intracranial infection
   - Intracranial hypertension
   - Emergent disorders of spinal cord, peripheral nerves, and neuromuscular junction
   - Spinal cord injury

**E. Metabolic and Endocrine**

1. Recognition and Acute Management of
   - Diabetic ketoacidosis
   - Hyperosmolar coma
   - Thyroid storm and myxedema coma
   - Hypoadrenal crisis
   - Diabetes insipidus
   - Pheochromocytoma
2. Principles of Alimentation

Enteral
Parenteral

**F. Infectious diseases**

1. Recognition and Acute Management of

Sepsis, severe sepsis, and septic shock
Hospital-acquired, healthcare-associated, and opportunistic infections, including those related to HIV
Antibiotic selection and dosage schedules for the critically ill patient
Infection risks to healthcare workers

**G. Hematologic Disorders**

1. Recognition and Acute Management of

Defects in hemostasis
Hemolytic disorders
Hematologic dysplasias and their complications
Thrombotic disorders
Sickle cell crisis

2. Principles of

Anticoagulation and fibrinolytic therapy
Blood component therapy
Apheresis for acute disorders, including neurologic and hematologic emergencies

**H. Gastrointestinal Disorders**

1. Recognition and Acute Management of

Gastrointestinal bleeding
Hepatic failure
Pancreatitis
Mesenteric ischemia and infarction
Viscus perforation

2. Principles and application of prophylaxis against stress-related mucosal damage
I. Critical Illness in the Pregnant Patient

J. Principles of Sedation, Analgesia, and Neuromuscular Blockade in the Critically Ill Patient

K. Preventive care in the critically ill patient

Prevention of complications related to underlying critical illness
Preventive measures related to procedures and invasive devices
Preventive measures related to altered consciousness and immobilization

L. Transport of the Critically ill Patient

Stabilization
Equipment and monitoring

M. Ethical and Legal Aspects of Critical Care

Do-not-resuscitate orders
Rights of patients
Substitute judgment
Principles of informed consent
Living wills, Advance directives, durable powers of attorney
Withholding and withdrawing life support
Organ donation

N. Psychosocial issues

Understanding the effect of life-threatening illness on patients and their families
Death and dying
Domestic violence

O. Monitoring, prognostication, and biostatistics

Prognostic indices such as the Acute Physiology and Chronic Health Evaluation (APACHE), as indicated
Respiratory monitoring (pulse oximetry, capnography)
Electronic pressure transduction

Specific Core Procedural Skills and Knowledge

In addition to practical training in the following procedural skills, the resident must have an understanding of the indications, contraindications, complications, and pitfalls of these interventions.
A. Airway Management

Maintenance of an open airway in the nonintubated patient
Ventilation by bag-mask
Tracheal intubation
Emergent Management of pneumothorax

B. Circulation

Arterial puncture and cannulation
Insertion of central venous catheters
Dynamic electrocardiogram interpretation
Electrical Cardioversion
Transcutaneous pacing

Principle Teaching Methods

1. Supervised direct patient care activities. Resident teams participate in daily management rounds with their supervising Critical Care faculty (See also Rotation Structure). Residents assume primary care responsibility for the patient evaluation, management and coordination of care for all patients admitted to the Texas Tech Critical Care service, including performance of any necessary procedures. Similarly, residents will assume responsibility for critical care of patients on whom Texas Tech Critical Care service was consulted. Proper care coordination is maintained with the primary physicians of consultation patients.

2. Small group discussions. Residents participate in a morning report 5 days a week (Monday-Friday), during which patient evaluation and management are discussed, moderated by faculty and senior residents. Presentations and subsequent interactive exchange, moderated by faculty and senior residents. In addition, residents make brief presentations of results of literature search on clinical questions raised in relation to discussed patient cases. Teaching rounds are conducted daily with attending Critical Care faculty, as a separate part of attending rounds. During both morning report and teaching rounds, emphasis is placed on learning accurate, focused data communication, formulation of problem lists and pertinent differential diagnosis, and selected, derived aspects of diagnosis, management, prognostication, triage, as well as relevant bioethical and resource utilization issues. Skills for proper validation, follow-up and communication of patient’s data are emphasized in context of general management, continuity of care, and patient safety. Regular sessions on ethics are included within the teaching rounds.

3. Didactic sessions. Residents participate in the Medical Emergencies lecture series at the beginning of each academic year and the subsequent core lecture series on Monday, Tuesday and Friday, as well as attend the monthly interdepartmental and geriatrics lecture series. Residents continue to participate
in the weekly Internal Medicine Grand Rounds, conducted on Thursday.

4. **Morbidity and Mortality Conferences.** Residents participate in these monthly conferences to review cases, which are often drawn from the critical care units. Presentations are made by residents, with faculty commentary.

5. **Assigned reading.** Residents are expected to complete reading of pre-rotation core Critical Care article and guideline packets, as well additional directed reading, based upon their patient census. Directed self-study also involves the on-line presentations on the RICU web site. In addition, there is guided readings from standard texts and key reference article, related to specific patients under residents’ care and the didactic sessions (*See also Ancillary Educational Materials*).

**Educational Content**

1. **Patient Characteristics.** Medical Center Hospital (MCH) serves as the primary critical care facility for residents of Ector county and a major referral center for patients requiring critical in surrounding west Texas counties and part of New Mexico, commonly utilizing the airlift capability of the CareStar program. In addition, MCH is a local referral trauma center, serving 17 surrounding counties. Texas Tech Critical care service provides daily on-call coverage for primary and consultative critical care support. Midland Memorial Hospital (MMH) is the primary acute care facility for residents of Midland county requiring critical care, and occasionally serves patients referred for critical care from adjacent counties. In addition, residents on the critical care service at MMH admit and manage patients requiring cardiac telemetry. Patients in both hospitals include Texas Tech patients, as well as unassigned or consultation critically ill patients.

2. **Disease Mix.** Patients requiring management by the Critical Care Service may have a wide spectrum of critical illnesses. These include among other, respiratory system pathology, most commonly respiratory failure; severe sepsis and septic shock; acute and chronic metabolic and endocrine aberrations, including toxin and drug overdose and diabetic ketoacidosis; acute coronary syndromes and decompensated heart failure; neurological emergencies; and trauma-related organ dysfunction and failure (managed by the critical care team as a consulting service).

3. **Educational Venues:**
   
   I. **Facilities:** The critical care rotation occurs at Medical Center Hospital and Midland Memorial Hospital. Residents take of care for patients admitted to the Texas Tech Critical Care Service or requiring its consultative support in the Intensive Care Unit and the Coronary Care Unit at both hospitals, and patients admitted to Texas Tech service, requiring cardiac telemetry at MMH. Both hospitals have computer facilities with Internet access for resident use. Critical Care units (and the telemetry unit at MMH) have on-line access to digitized imaging data of surface films, nuclear medicine studies, CT scans, MRI, MRA, and invasive angiography. MCH also has provides on-line access to the full content of medical records from patients’ previous hospitalizations, as well as
II. Procedures: Residents have the opportunity to perform a variety of procedures on patients under their care, including tracheal intubation, central venous and arterial catheterization, pulmonary artery catheterization, lumbar puncture, paracentesis, thoracentesis, and gastric tube placement. Residents also apply standard ACLS protocols in the care of patients, as needed. Opportunity is provided for the residents to interpret all laboratory tests and imaging studies obtained on their patients. Radiology images and diagnostic test results are readily accessible from the desktop computer terminals in units and throughout both hospitals, as described above.

III. Ancillary Services: Throughout the Critical Care rotation residents interact with subspecialty clinician from various disciplines; residents from other disciplines who serve either as consultants (i.e., OB-Gyn) or from other primary patient services (i.e, family practice); nursing personnel; respiratory therapists; clinical pharmacists; social service staff; and case managers.

IV. Rotation Structure

a. Teams: ICU resident teams include two senior residents and a PGY-1 resident at MCH and 2 senior residents at MMH. Each team is under the supervision of a Critical Care faculty.

b. Duty Hours and Call: All resident schedules are structured to limit duty hours to no greater than 80 hours per week when averaged over four weeks. Residents perform morning rounds prior to morning report (which starts at 8 am) during week days. Management and teaching are subsequently conducted under the guidance of a Critical Care faculty. Residents on day call admit patients to the critical care service and sign off to the night float team (5 days a week) or to the regular alternating ward team on week ends.

c. Rounds: Residents perform daily management rounds with Critical Care faculty. Start times are between faculty and residents. Patients’ case discussion and care is provided at the bedside. Imaging studies may also be reviewed electronically during management rounds.

d. Clinics: Residents continue to participate in their continuity clinics in Odessa and Midland, 2 half days per week, unless such participation would conflict with post call duty hour restrictions.

e. Didactic activities: ICU residents continue to participate in residency-wide didactic activities as noted in Principle Teaching methods. ICU teaching rounds with Critical Care faculty occur daily, complementing the management rounds component.
Ancillary Educational Materials

A variety of educational materials are available at the TTUHSC library of the Odessa campus, including all the textbooks and handbooks cited below, as well as the full text hard copy and electronic versions of the remainder references.

In addition, residents have access to educational material on-line at both MCH and MMH. Those include also program-sponsored subscription to UpToDate.

A. Principle Ancillary Educational Materials

At the beginning of the rotation, each resident receives a copy of the Critical Care curriculum’s Goals and Learning Objectives.

Textbooks in adult Critical Care Medicine (each of these texts provides adequate coverage of Critical Care Medicine)


Handbooks in Critical Care


Useful web sites for Critical Care Medicine

Society of Critical Care Medicine
http://www.sccm.org
(provides good overview of critical care related practice guidelines by the American College of Critical Care Medicine, as well as useful web links)

http://www.learnicu.org/Clinical_Practice/Fundamentals/RICU/Pages/RICU-Adult-Peds.aspx
(an on-line web site developed and maintained by the Society of Critical Care Medicine targeted specifically residents of Internal Medicine and other specialties. Provides Power Point presentations on core critical care topics. Pre-test and post-test evaluations are available on-line).
American College of Chest Physicians
http://www.chestnet.org
(provides useful data on critical care and pulmonary medicine. Includes an online Pulmonary and Critical Care Update [PCCU], online evidence-based guidelines, consensus statements, and more).

www.icuroom.net
(provides numerous critical care-related calculators, guidelines, near daily updated and referenced critical care “pearls”, practical aspects of bioethics and specific system and specialty related information)

The Cochrane Collaboration and Cochrane Library – evidence-based reviews
www.cochrane.org

B. System/Disease/Problem-Specific References (updated periodically)

Respiratory Failure


Sepsis


**Hypertensive Emergencies**


**Intravenous Fluid Resuscitation**


**Monitoring**

Dorman T, Breslow MJ, Lipsett PA, Rosenberg JM, Balser JR, Almoq Y, Rosenfeld BA. Radial artery pressure monitoring underestimates central arterial

**Multiple Organ Dysfunction Syndrome**


**Neurological Complications of Critical Illness**


**Ventilator-Associated Pneumonia**


**Other Infectious complications of Critical Illness**


**Gastrointestinal Disease**


**Hematology**

**Metabolic and Endocrine disease**


**Nutrition**


**General data:** Journal of Parenteral and Enteral Nutrition

http://jpen.aspenjournals.org/

**Nutrition (cont.)**
Ethics, End of Life issues


Drug and toxin exposure


Triage and Prognosis of Critical Illness


Triage and Prognosis of Critical Illness (cont.)


Methods of Evaluation

1. Resident Performance: Critical Care Service faculty complete written resident evaluation forms provided by the Internal Medicine Residency coordinators. The evaluation is competency-based, and uses a detailed assessment of resident’s effort, progress and achievement on each core competency component. Faculty review the written evaluation in person with each resident and provide detailed feedback on resident’s performance. In addition, the following sources and methods of evaluation are included in assessing residents performance: a) written evaluations completed by end of each rotation by the other member of the resident team. b) written evaluations by ICU nursing staff. c) resident’s performance on the pre-test and post-test on the RICU web site. d) mini-CEX and CEX. e) all other (verbal, written) evaluation comments provided to the Program Director/Associate Program Director by faculty and community physicians interacting with the resident during ICU rotation are documented in writing. f) performance on the periodic Critical Care exam administered as part of the monthly subspecialty exams. All evaluations are available for resident review (excluding direct review of evaluations completed by resident colleagues). All evaluations are part of the resident file and are incorporated into the semiannual performance review for directed resident feedback.

2. Procedures: Residents submit documentation of any procedures performed during the rotation, on a hard-copy form, completed by supervising faculty. Procedure forms include supervisors’ evaluation of resident’s performance.

3. Program and Faculty Performance: By end of the Critical Care rotation, the residents are asked to complete a service evaluation form commenting on the faculty, facilities, and service experience. These evaluations are returned by the residents to the residency office and are reviewed by Program Director and department chair.

Rotation-Specific Competency Objectives

Note: The following competency objectives complement the Progressive Learning Objectives for Internal Medicine Residents, which provide in greater detail competency-based performance expected at a given level of training.

1. Patient Care
   I. Data Gathering.
a. **History.** Residents at all levels of training will collect a thorough history from patients, as allowed by their clinical condition, and consult other sources or primary data (including but not limited to direct contact with family members, friends, EMS teams, healthcare providers in referring/other institutions; current and prior hard-copy and electronic medical records). History taking will be hypothesis-driven. History gathering from all sources will be performed in a timely, logical and organized fashion. Interviewing will adapt to the time available and instability of the patient, use appropriate nonverbal techniques, and demonstrate sensitivity and consideration for the patient and family. Residents will recognize verbal and nonverbal cues from the patient. Cues will be followed in an organized directed logical fashion with a complete exploration of symptoms. Data gathering should not conflict with need for simultaneous specific and non-specific life-support and stabilization interventions. The resident will inquire about the emotional aspects of the patient’s or family’s experience while demonstrating flexibility based on patient need.

b. **Physical Exam.** Residents at all levels of training will use correct technique and perform a comprehensive physical examination describing the physiological and anatomical basis for normal and abnormal findings. PGY-2 and PGY-3 residents will demonstrate knowledge and skills of maneuvers that can elicit findings not otherwise present, and routinely adapt the physical exam for patients with diminished levels of consciousness or cooperativeness.

II. **Data Interpretation**

**Medical Decision-Making and Clinical Judgment.** All residents will demonstrate improving skills in systematically applying information that they have gathered from the history, physical exam and other available data.

1. PGY-1 residents will be able to identify and prioritize all patients’ problems and develop a prioritized differential diagnosis. Abnormal findings will be interrelated with altered physiology. They will start integrating up-to-date scientific evidence to support their hypotheses. Residents will demonstrate understanding of their limitation of skills and knowledge and seek the advice of more advanced clinicians. Residents will establish an orderly sequence of diagnostic testing based on patients’ history, physical exam and other available data. They will be able to describe goals of diagnostic studies for individual patients (i.e., confirmatory test, assessment of secondary organ system dysfunction, etc.) and the impact of “negative”, “positive”, and “inconclusive” test results on decision-making. Residents will progressively improve ability to revise assessments in the face of new data.

2. PGY-2 residents will demonstrate the above and in addition will
also regularly integrate medical facts and clinical data while weighing alternatives and keeping in mind patient preferences. They will regularly incorporate consideration of risks and benefits when considering diagnostic testing. Residents routinely will present up-to-date scientific evidence to support their hypotheses.

3. PGY-3 residents will demonstrate the above and in addition will demonstrate appropriate reasoning in ambiguous situations, while continuing to seek clarity. Residents at this level of training will not overly rely on tests and procedures. PGY-3 residents will continuously revise assessments in the face of new data.

III. Management Plans

1. PGY-1 residents will begin to develop specific and detailed (translatable into actual practice) therapeutic plans that are evidence or consensus based. Specific organ dysfunction will be anticipated based on known side effects of therapy. Additionally, residents will understand the correct administration of drugs, describe drug-drug interactions, and be familiar with expected outcomes.

2. PGY-2 and PGY-3 residents will demonstrate the above and in addition will also regularly incorporate consideration of risks and benefits when considering therapies and regularly incorporate patients' preferences into their decision-making. They will develop plans to avoid or delay known treatment complications and be able to identify when illness has reached a point where treatment no longer contributes to improved quality of life.

IV. Procedures

1. PGY-1 and PGY-2 residents will demonstrate knowledge of procedural indications, contraindications, necessary equipment, specimen handling, trouble-shooting, patient after-care, and risk and discomfort minimization. They will participate in informed consent and assist patients with decision making. PGY-1 residents will initially observe and then perform procedures under proper supervision.

2. PGY-3 residents will demonstrate the above and in addition will also demonstrate extensive knowledge and facility in the performance of procedures while minimizing risk and discomfort to patients. They will assist their junior peers in skill acquisition.

V. Implementation of Care

a. General. Residents at all levels of training will consistently oversee implementation of care and assure the accurate and timely delivery of care plan. Orders for care for will be consistently complete in all components, clear, legible, and follow commonly used guidelines for avoiding errors in interpretation and maximizing patient safety. They will consistently monitor and follow-up patients appropriately. All residents will assure effective and accurate continuity of care through proper hand-over procedures to cross-
covering clinicians.

b. Patient counseling.

1. PGY-1 residents will be able to describe the rationale for a chosen therapy and will be able to describe medication side effects in lay terms. They will assess patient/family understanding and provide more information when necessary. Residents will demonstrate the ability to be a patient advocate.

2. PGY-2 residents, in addition to the above, will be able to explain the pros and cons of competing therapeutic interventions. PGY-2 residents will be expected to counsel patients regarding adverse habits, and educate patients and families for enhanced compliance. They will be able to effectively communicate with critically ill patients and engage patients and families in issues related to advance directives and end-of-life discussions.

3. PGY-3 residents, in addition to the above, will effectively communicate with patients making life-style modifications.

VI. Documentation. Residents at all levels of training will record data in a legible, thorough and systematic manner.

2. Medical Knowledge.

1. PGY-1 Residents will demonstrate progressive expansion of medical knowledge related to Critical Care Medicine, acquired through the didactic program, prior rotations and expected self-study, and show initiative and ability to clarify uncertainties through available resources. Residents will consistently apply current concepts in the basic and clinical sciences to clinical problem solving. They will use information from the literature and other sources including electronic databases. PGY-1 residents will demonstrate satisfactory knowledge of common medical conditions, sufficient to manage urgent complaints with supervision. Residents must exhibit sufficient content knowledge of common conditions to provide care with minimal supervision by completion of the PGY-1 year.

2. PGY-2 residents will demonstrate the above and in addition will also demonstrate a progression in knowledge and analytical thinking in order to develop well-formulated differential diagnoses for multi-problem patients. They will also demonstrate socio-behavioral knowledge.

3. PGY-3 residents in addition to the above will demonstrate appropriate habits to stay current with new medical knowledge, and will exhibit knowledge of effective teaching methods.

3. Practice Based Learning and Improvement.

Residents at all levels of training will readily acknowledge gaps in skills and knowledge, and incorporate feedback into improving clinical practice and self-education.

1. PGY-1 residents will use University library and personal educational resources to start developing and improving skills to critically appraise medical literature and apply evidence to patient care. They will use handheld computers, desktop PC’s and Internet electronic references to support patient care and self-education.
2. PGY-2 residents will in addition consistently seek out and analyze data on practice experience, identify areas for improvement in knowledge or patient care performance and make appropriate adjustments. Residents will consistently demonstrate ability to critically appraise medical literature, and will regularly demonstrate knowledge of the impact of study design on validity or applicability to individual practice.

3. PGY-3 residents will additionally model independent learning and development.

4. **Interpersonal and Communication Skills.**
   1. PGY-1 residents will develop and refine their individual style when communicating with patients. They will strive to create ethically sounds relationships with patients and family members, the physician team and supporting hospital personnel. They will create effective written communications through accurate, complete, and legible notes. Residents will communicate effectively will all members of the healthcare team, with focus delivery of patient-centered care. They will exhibit listening skills appropriate to patient-centered interviewing and communication. Residents will recognize verbal and nonverbal cues from patients and family members. Residents will respond to feedback in an appropriate manner and make necessary behavioral changes.
   2. PGY-2 and PGY-3 residents will also exhibit team leadership skills through effective communication as manager of a team. PGY2 residents are expected to assist junior peers, medical students, and other hospital personnel to form professional relationships with support staff.

5. **Professionalism.**
   All residents will demonstrate integrity, accountability, respect, compassion, patient advocacy, and dedication to patient care that supersedes self-interest. Residents will demonstrate a commitment to excellence and continuous professional development. They will be punctual and prepared for teaching sessions and management rounds. Residents will demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, and informed consent. Residents are expected to show sensitivity and responsiveness to patients’ culture, age, gender and disabilities.

6. **Systems Based Practice.**
   1. PGY-1 residents will be sensitive to health care costs while striving to provide quality care. They will begin to effectively coordinate care with other health care professionals, as required for patient needs.
   2. PGY-2 residents, in addition to the above, will consistently understand and adopt available clinical practice guidelines and recognize the limitations of these guidelines. They will work with all members of the healthcare team, including patient care managers, discharge coordinators and social workers to coordinate and improve patient care and outcomes.
   3. PGY3 residents, in addition, will enlist social and other out-of-hospital resources to assist patients with therapeutic plans. PGY-3 residents are expected to model cost-effective therapy.