# Program Goals and Learning Objectives

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LEARNING OBJECTIVES IN INTERNAL MEDICINE

Internal Medicine is an exciting field, which has grown tremendously in the last 2 decades. At one time, it was not very hard to become a good internist. Medical knowledge acquired in the medical school, supplemented by reading around the patients’ problem was sufficient to graduate from the program and be able to function independently as an internist. Now there is an enormous amount of knowledge to be acquired. Many new diseases have emerged. There are more options for investigations, treatment and guidelines for prevention and management of medical conditions that internists deal with. To attain our goal of providing comprehensive, patient centered education and making sure that at the completion of your training here, you have acquired knowledge, skills and attitude to practice successfully as an internist, we have developed learning objectives in all specialties. These documents were prepared by the Program Director in consultation with the Division Chiefs of specialties, and reviewed by the Curriculum Committee which consists of key faculty members and representatives from trainees. We have incorporated the new competencies in Internal Medicine, in accordance with the ACGME requirements which are outcome based. In addition, the objectives have been tailored to ensure that diversity of diseases in Downtown Bronx, and community needs are addressed.

We would like you to review all of the documents, educate yourself about the goals and objectives of each rotation. It is important that you review all of them, even though you may not be scheduled for a particular elective till later in the year, as the expectation is that you will have an opportunity to take care of patients with various diseases on inpatient units and continuity clinic, and not just during the elective.

To ensure that you are making progress, we advise you to do a self assessment employing the tool that has been developed. The tool includes elements specific to each specialty, to ensure that skills unique to each specialty are mastered. The self evaluation is to become part of your portfolio and will be reviewed with the Program Director or designee twice a year, to follow your growth as a physician.

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GENERAL PGY-SPECIFIC GOALS AND OBJECTIVES

Goals and Objectives PGY-1

By the end of the PGY1 year residents should:

Patient Care
- be able to do a complete and accurate history and physical examination
- be able to interpret the history, physical examination and laboratory data
- be able to discuss a differential diagnosis and arrive at the correct diagnosis
- be able to prioritize the patients’ problems
- have demonstrated compassion for patients and their relatives and treat them in a dignified manner
- be able to handle emergency situations
- be able to perform all of the following procedures skillfully and with the least discomfort to the patient: ACLS, drawing venous blood, drawing arterial blood, placing a peripheral venous line
- Perform in a satisfactory way on mini-CEX

Medical Knowledge
- have begun becoming familiar with current literature
- be able to demonstrate adequate knowledge of pathophysiology and clinical medicine
- know the indications, contraindications, complications, techniques, specimen handling, result interpretation, and how to get informed consent, for most of the following procedures: ACLS, drawing venous blood, drawing arterial blood, abdominal paracentesis, placing a peripheral venous line, pap smear and endocervical culture, arterial puncture/line placement, arthrocentesis, lumbar puncture, central line placement, thoracentesis, and nasogastric intubation.

Practice Based Learning and Improvement
- understand his or her own limitations of knowledge
- ask peers and faculty for help when needed
- accept feedback and develop self-improvement plans
- be self-motivated to acquire knowledge
- be able to use electronic references and literature to learn about patients diseases

Interpersonal and Communication Skills
- write clear, organized, legible notes and orders
- be able to use their verbal and non-verbal skills to competently and effectively interview a patient and/or family members
- interact with other members of the health care team in an effective, professional manner

Professionalism
- be able to establish trust with the patients and staff
- be honest, reliable, cooperative and accepting of responsibility
- show regard for opinions and skills of colleagues
- demonstrate respect, compassion and integrity
- acknowledge errors and work to minimize them
- put the needs of the patient above self-interest

Systems-Based Practice
- have begun working with all health professionals to provide patient centered care
- have begun working on quality improvement projects that involve improving the systems in which they practice
- be a patient advocate
Goals and Objectives PGY-2
By the end of the PGY2 year residents:

Patient Care
- be able to do a complete and accurate history and physical examination
- be able to interpret the history, physical examination and laboratory data
- be able to discuss a differential diagnosis and arrive at the correct diagnosis
- be able to prioritize the patients problems
- have demonstrated compassion for patients and their relatives and treat them in a dignified manner
- be able to handle emergency situations
- be able to perform most of the following procedures skilfully and with the least discomfort to the patient: ACLS, drawing venous blood, drawing arterial blood, placing a peripheral venous line, pap smear and endocervical culture, arterial line placement, central line placement, nasogastric intubation
- be able to perform some of the following procedures skilfully and with the least discomfort to the patient depending on future practice interests: abdominal paracentesis, arthrocentesis, lumbar puncture, thoracentesis
- perform in a satisfactory way on mini-CEX
- be able to manage multiple problems at once
- be showing ability to triage patients to appropriate level of care

Medical Knowledge
- have become familiar with current literature
- be able to demonstrate adequate knowledge of pathophysiology and clinical medicine
- know the indications, contraindications, complications, techniques, specimen handling, result interpretation, and how to get informed consent, for all of the following procedures:
- ACLS, drawing venous blood, drawing arterial blood, abdominal paracentesis, placing a peripheral venous line, pap smear and endocervical culture, arterial puncture/line placement, arthrocentesis, lumbar puncture, central line placement, thoracentesis, and nasogastric intubation.
- have demonstrated knowledge of evidence based medicine and epidemiology principles,
- and be able to relate these to patient care

Practice Based Learning and Improvement
- understand his or her own limitations of knowledge
- ask peers and faculty for help when needed
- accept feedback and develop self-improvement plans
- 3. be self-motivated to acquire knowledge
- 4. be able to use electronic references and literature to learn about patients diseases
- 5. facilitate the learning of interns and students by holding intelligent discussions regarding patient’s problems and management

Interpersonal and Communication Skills
- 1. document clear, organized notes and orders
- 2. be able to use their verbal and non-verbal skills to competently and effectively interview a patient and/or family members
- 3. interact with other members of the health care team in an effective, professional manner in a leadership role
- 4. provide education and counseling to the patients and their families
- 5. be able to discuss end of life decisions and care with patients and their families

Professionalism
- be able to establish trust with the patients and staff
- be honest, reliable, cooperative and accepting of responsibility
- show regard for opinions and skills of colleagues
- demonstrate respect, compassion and integrity
- acknowledge errors and work to minimize them
- put the needs of the patient above self-interest
- display initiative and leadership
- be able to delegate responsibility appropriately to others
- demonstrate sensitivity to patient culture, gender, age, preferences and disabilities

**Systems-Based Practice**
- be actively working with all health professionals to provide patient centered care
- have worked on several quality improvement projects that involve improving the systems in which they practice
- be a patient advocate
- be able to do the appropriate patient work-up in a cost effective way
- be able to supervise PGY1 residents and medical students
Goals and Objectives - PGY-3

By the end of the PGY3 year residents should:

Patient Care
- be able to do a complete and accurate history and physical examination
- be able to interpret the history, physical examination and laboratory data
- be able to discuss a differential diagnosis and arrive at the correct diagnosis
- be able to prioritize the patients problems
- have demonstrated compassion for patients and their relatives and treat them in a dignified manner
- be able to handle emergency situations
- be able to perform all of the following procedures skilfully and with the least discomfort to the patient: ACLS, drawing venous blood, drawing arterial blood, abdominal paracentesis, placing a peripheral venous line, pap smear and endocervical culture, arterial puncture/line placement, arthrocentesis, lumbar puncture, central line placement, thoracentesis, and nasogastric intubation.
- perform in a satisfactory way on mini-CEX
- be able to manage multiple problems at once
- be showing ability to triage patients to appropriate level of care
- reason well in ambiguous situations
- spend time appropriate to the complexity of the problem
- be able to function and manage patient decision making independently

Medical Knowledge
- have become familiar with current literature
- be able to demonstrate adequate knowledge of pathophysiology and clinical medicine
- know the indications, contraindications, complications, techniques, specimen handling, result interpretation, and how to get informed consent, for all of the following procedures: ACLS, drawing venous blood, drawing arterial blood, abdominal paracentesis, placing a peripheral venous line, pap smear and endocervical culture, arterial puncture/line placement, arthrocentesis, lumbar puncture, central line placement, thoracentesis, and nasogastric intubation.
- have demonstrated knowledge of evidence based medicine and epidemiology principles, and be able to relate these to patient care
- be ready to take and pass the ABIM board certification examination

Practice Based Learning and Improvement
- understand his or her own limitations of knowledge
- ask peers and faculty for help when needed
- accept feedback and develop self-improvement plans
- be self-motivated to acquire knowledge
- be able to use electronic references and literature to learn about patients diseases
- facilitate the learning of interns and students by holding intelligent discussions regarding patient’s problems and management
- analyze personal practice patterns to self-improve

Interpersonal and Communication Skills
- be able to use their verbal and non-verbal skills to competently and effectively interview a patient and/or family members
- interact with other members of the health care team in an effective, professional manner in a leadership role
- provide education and counseling to the patients and their families
- be able to discuss end of life decisions and care with patients and their families
- have developed expertise in communicating with difficult patients

Professionalism
- be able to establish trust with the patients and staff
- be honest, reliable, cooperative and accepting of responsibility
- show regard for opinions and skills of colleagues
- demonstrate respect, compassion and integrity
- acknowledge errors and work to minimize them

Reviewed and Updated July, 2011
- put the needs of the patient above self-interest
- display initiative and leadership
- be able to delegate responsibility appropriately to others
- demonstrate sensitivity to patient culture, gender, age, preferences and disabilities
- be an effective consultant to other specialties

**Systems-Based Practice**
- have begun working with all health professionals to provide patient centered care
- have worked on quality improvement projects that involve improving the systems in which they practice
- be a patient advocate
- be able to do the appropriate patient work-up in a cost effective way
- be able to supervise junior residents and medical students
- understand different types of medical practice and how they function and integrate with society
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<td>Act as team leader</td>
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<td>abdominal examination: demonstrate/teach</td>
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**Absences:** 0

**Communication skills with patients and staff:**
- December

**General:**
- ✓ appearance
- ✓ professional self presentation
- ✓ introducing self to patient and staff
- ✓ Universal precautions and hygiene

**Recognize and assess emergencies:**
- December
- a. seizure
- b. acute stroke
- c. change in mental status
- d. acute MI
- e. arrhythmias
- f. shock, all types
- g. acute respiratory distress
- h. acute pulmonary edema
- i. intoxication/overdose
- j. GI bleeding
- k. hypotension
- l. hypertensive emergency
- m. status asthmaticus
- n. hypoglycemia
- o. DKA
- p. panic attack
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<td>f. cultural restrictions: medications, food, vaccinations, blood transfusion</td>
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AMBULATORY CARE MEDICINE

Goal: The goal of curriculum in Ambulatory care is to ensure that residents acquire knowledge, skills and attitude necessary for management of patients with chronic diseases, preventive medicine and disease management.

Primary Teaching Method and Setting
Primary care medicine is taught in the continuity clinic and block rotation in clinic. Residents acquire their patients from three sources, from departing senior residents, patients discharge from inpatient service and patients referred from Emergency Department. In the continuity clinic the residents follow their own patients for the duration of training at Lincoln Medical Center. Each resident has a preceptor. The resident performs history and physical examination, orders appropriate investigations, analyzes the data available and formulates a diagnosis and management plan.

Use and interpretation of specific tests and procedures
Residents are expected to be able to interpret commonly done tests such as LFTs, TFTs, mammogram results, bone density.

Competencies
Residents are expected to develop competencies that are particularly relevant to the care of patients with chronic diseases and address elements of all 6 Internal Medicine Core Competencies. Specific examples are listed below:

Medical Knowledge
Residents are expected to learn: to manage chronic diseases according to treatment guidelines such as JNC VII report, ADA guidelines for DM to ensure adequate control of disease and prevent/ retard complications; concepts of risks and disease prevention such as diet, body weight, exercise; risk reduction strategies for coronary artery disease; screening for breast, cervix, prostate and colon cancer; manage conditions such as diabetes, HTN, asthma, obesity; preventive guidelines for breast, cervical, colorectal and prostate cancer; preventive guidelines for coronary artery disease, risk stratification; preventive guidelines for osteoporosis; guidelines for management of DM, HTN, asthma.

By completion of PGY-2 residents are expected to:
• Demonstrates advanced understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in outpatient General Internal Medicine.
• Demonstrates advanced understanding of the pathophysiology, clinical manifestations, natural history, prevention, and principles of management of the gender specific health issues seen in outpatient General Internal Medicine.
• Demonstrate knowledge of the subtleties of preventive care
• Interpret complex laboratory tests, including:
  • Serologies, Rheumatological panels
  • Recognize subtle findings on routine imaging.
• Demonstrates basic knowledge of the predictive power and test characteristics of laboratory and radiological testing.

Educational resources:
Access Medicine
John Hopkins Ambulatory Care Curriculum
UpToDate topics relevant to internal medicine (available online throughout the institution)
Ovid
Medline Searching (available online throughout the institution).
Medical Library – Available on site, all major journals and textbooks are available.

Learning Objectives in Ambulatory Care Medicine
Physical examination skills
Residents are expected to perform a detailed history and physical examination on all patients on initial visit, particularly for complications of chronic diseases, such as Fundus exam for changes of hypertensive and diabetic retinopathy, foot, and peripheral circulation examination for in patients with atherosclerosis (which means most of the patients). On follow up visits, residents are expected to do a focused examination with emphasis on essentials such as foot exam in diabetic at every visit.

Presenting complaints
Residents are expected to be able to evaluate presenting complaints such as headache, weight loss, rash, fatigue, dizziness, pruritis, abdominal pain, sexual dysfunction, urinary symptoms suggestive of infection an prostate enlargement, cough, shortness of breath, palpitations, gynecologic problems such as menstrual dysfunction, urinary incontinence, menopause, backache, carpal tunnel syndrome, etc.

Differential diagnosis, evaluation and management of diseases
These include: management of chronic diseases such as DM, HTN, asthma, obesity; preventive guidelines for breast, cervical, colorectal and prostate cancer; preventive guidelines for coronary artery disease, risk stratification; preventive guidelines for osteoporosis; guidelines for management of DM, HTN, asthma.

By completion of PGY-1 residents are expected to:
• Demonstrates basic understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in Outpatient Internal Medicine, including:
  • Hypertension
  • Diabetes Mellitus
  • Hypercholesterolemia
  • Asthma / COPD
  • Benign Prostatic Hypertrophy
  • Peripheral Vascular Disease
  • Atherosclerotic Coronary Vascular Disease
  • Depression
  • Gastroesophageal Reflux Disease
  • Congestive Heart Failure
  • Fibromyalgia
  • Irritable Bowel Syndrome
  • Neuropathy
  • Obesity
  • Osteoporosis
  • Somatization
  • Thyroid disorders
  • Weight Loss / Gain

• Demonstrates basic understanding of the pathophysiology, clinical manifestations, natural history, prevention, and principles of management of the common gender specific health issues, including:
  • HIV and other sexually transmitted disease prevention and screening
  • Contraception
  • Hormone Replacement Therapy
  • Breast Mass
  • Vaginitis
  • Menopause
  • Erectile Dysfunction
  • Dysfunctional Uterine Bleeding
  • Amenorrhea

• Demonstrate knowledge of the basics of preventive care
• Interpret basic laboratory tests, including:
  • CBC, electrolytes, PT/PTT, LFT’s
  • Fluid analysis: CSF, Pleural fluid, Ascites
• Recognize major findings on routine imaging, including:
  • Routine radiology including CXR, KUB, basic joint films
  • CT/MRI – Chest, Abdominal, Pelvic, Brain imaging

By completion of PGY-1 residents are expected to:

• Demonstrates basic understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in outpatient General Internal Medicine.

• Demonstrates advanced understanding of the pathophysiology, clinical manifestations, natural history, prevention, and principles of management of the gender specific health issues seen in outpatient General Internal Medicine.

• Demonstrate knowledge of the subtleties of preventive care
By completion of PGY-3 residents are expected to:
- Demonstrates areas of current controversy / evolving understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in outpatient General Internal Medicine.
- Demonstrates areas of current controversy / evolving understanding of the pathophysiology, clinical manifestations, natural history, prevention, and principles of management of the common gender specific health issues seen in outpatient General Internal Medicine.
- Independently incorporates Geriatric Assessments into provision of primary care when appropriate

**Patient care**

Residents are expected to develop and implement effective management plans and integration of patient care using evidence based approach. It is essential to be culturally sensitive and be aware of the barriers to health care resulting in disparity in health care. It is also important to know principles of managed care.

**By completion of PGY-1 residents are expected to:**
- Acquire accurate and relevant history from the patient in an efficiently customized, prioritized, and hypothesis driven fashion
- Seeks and obtains appropriate, verified, and prioritized data from secondary sources
- Perform an accurate physical examination that is appropriately targeted to the patient's complaints and medical conditions. Identify pertinent abnormalities using common maneuvers
- Accurately track important changes in the physical examination over time
- Synthesize all available data, including interview, physical examination, and laboratory data, to define each patient's central clinical problem
- Develop prioritized differential diagnoses and evidence based diagnostic / therapeutic plans for common outpatient conditions, including:
  - Anxiety / Panic
  - Hypertension
  - Diabetes Mellitus
  - Hypercholesterolemia
  - Asthma / COPD
  - Benign Prostatic Hypertrophy
  - Chronic Pain
  - Peripheral Vascular Disease
  - Atherosclerotic Coronary Vascular Disease
  - Dementia
  - Depression
  - Gastroesophageal Reflux Disease
  - Congestive Heart Failure
  - Fibromyalgia

**By completion of PGY-2 residents are expected to:**
- Demonstrate basic management of patients whose diagnosis is unclear.
- Obtain relevant historical subtleties that inform and prioritize both differential diagnoses and diagnostic plans, including sensitive, complicated, and detailed information that may not often be volunteered by the patient
- Identify some subtle or unusual physical findings that may influence clinical decision making, using advanced maneuvers where applicable
- Modify differential diagnosis and care plan based upon clinical course and data as appropriate
- Begin to recognize disease presentations that deviate from common patterns and that require complex decision making
- Demonstrate competence, technical proficiency, and post procedure management in all Internal Medicine outpatient procedures
- Make appropriate clinical decisions based upon the results of more advanced diagnostic tests
- Manage patients with a broad spectrum of clinical disorders seen in the practice of outpatient general internal medicine with minimal supervision
- Manage complex or rare medical conditions with limited supervision
- Incorporates Geriatric Assessments into provision of primary care when appropriate

**By completion of PGY-3 residents are expected to:**
- Demonstrate advanced management of patients whose diagnosis is unclear.
- Routinely identify subtle or unusual physical findings that may influence clinical decision making, using advanced maneuvers where applicable
- Recognize disease presentations that deviate from common patterns and that require complex decision making
- Manage patients with a broad spectrum of clinical disorders seen in the practice of outpatient general internal medicine independently
- Manage complex or rare medical conditions independently

**Practice Based Learning and improvement**

Residents are expected to analyze their practice utilizing process and outcome indicators to ensure that standard of
care it met. The residents review records of patients from their continuity clinic, and critique the care. The preceptor reviews resident’s critique and the record to ensure that all opportunities for improvement have been identified. A feedback is given and resident instructed to read relevant material.

By completion of PGY-1 residents are expected to:
- Appreciate the responsibility to assess and improve care collectively for a panel of patients
- Perform or review audit of a panel of patients using standardized, disease-specific, and evidence-based criteria
- Reflect on audit compared with local or national benchmarks and explore possible explanations for deficiencies, including doctor-related, system-related, and patient related factors
- Identify areas in resident’s own practice and local system that can be changed to improve affect of the processes and outcomes of care
- Identify and begin to answer clinical questions through self study as they emerge in patient care activities
- Access medical information resources to answer clinical questions and library resources to support decision making
- Respond welcomingly and productively to feedback from all members of the health care team including faculty, peer residents, students, nurses, allied health workers, patients and their advocates
- Actively seek feedback from all members of the health care team
- Actively participate in the department’s required teaching conferences.
- Develop time management skills to perform required tasks in a reasonable amount of time with satisfactory quality.

By completion of PGY-2 residents are expected to:
- Classify and precisely articulate clinical questions
- Answer basic clinical questions through self study as they emerge in patient care activities independently
- Effectively and efficiently search electronic databases and evidence based summary information for original clinical research articles
- Begin to integrate clinical evidence, clinical context, and patient preferences into decision-making
- Communicate risks and benefits of alternatives to patients
- Calibrate self-assessment with feedback and other external data
- Reflect on feedback in developing plans for improvement

By completion of PGY-3:
- Routinely answer clinical questions through self study as they emerge in patient care activities
- Integrate clinical evidence, clinical context, and patient preferences into decision-making
- Answer complex clinical questions through self study as they emerge in patient care activities independently
- Identify areas in the outpatient clinic environment that can be changed to improve affect of the processes and outcomes of care
- Engage in group quality improvement interventions
- Customize clinical evidence for an individual patient
- Reflect when surprised, applies new insights to future clinical scenarios, and reflects back on the process
- Take a leadership role in the education of all members of the health care team.
- Appraise the quality of medical information resources and select among them based on the characteristics of the clinical question

Interpersonal and communication skills
Residents follow their patients throughout the training period. It is expected that they develop good rapport with them. Effective listening, noticing nonverbal clues and questioning are necessary for optimal communication with the patient. Language and cultural barriers need to be overcome in order to involve patient in setting goals of treatment and participating actively in the disease management. Patient compliance with the medications and diet is essential for optimal control of HTN, DM, weight etc. Resident is expected to be able to ensure compliance by counseling and providing patient education material. Smoking is a risk factors for most of the diseases seen in clinics. Residents are expected to make an effort to get patient into a smoking cessation program. Good communication skills increase the probability that physician will be successful in the goal. Referrals are frequently made for subspecialty clinics. The resident is expected to be able to communicate with the consultant clearly.

By completion of PGY-1 residents are expected to:
- Demonstrate patient-centered interviewing techniques: a compassionate approach to history taking; the ability to modify interview techniques in response to the patient’s demeanor, cultural and/or religious background, and level of competency. Communicate sensitively and effectively with patients and with their families, including sensitivity to differences in race, culture, gender, sexual orientation, socioeconomic status, literacy, and religious beliefs
- Explain any complications of therapy in terms the patient can understand.
- Assist patients in decision-making regarding treatment options and lifestyle modification.
- Deliver appropriate, succinct, hypothesis-driven oral presentations
- Request consultative services in an effective manner
- Clearly communicate the role of consultant to the patient, in support of the primary care relationship
- Write complete, timely, and concise office notes for all patients evaluated in clinic.
- Utilize the Electronic Medical Record to maintain accurate medication and allergy lists.
- Communicate effectively with colleagues when signing out patients or turning over care to another service.
- Communicate effectively with office staff – nurses, secretaries, and other allied support personnel.

By completion of PGY-3 residents are expected to:
- Demonstrate effective negotiation and mediation skills with patients/families which are narcotic-seeking, angry/frustrated, or in disagreement with the plan of care.
- Engage patients in shared decision making for difficult, ambiguous or controversial scenarios
- Actively seek to understand patient differences and views and reflects this in respectful communication and shared decision-making with the patient and the healthcare team.
- Perform effective telephone / E-mail or other non-face-to-face management of patients.

Professionalism
Residents are expected to demonstrate compassion and trustworthiness in relationship with the patients. Resident must be sensitive to issues such as domestic violence. Patients must be inquired about other forms of therapy they might be receiving such as acupuncture, acupressure, bracelets etc. A significant number of patients believe in alternative medicine. Resident must be non judgmental concerning the use of alternative therapy. The number of patients in sessions may vary. One resident may have a disproportionate number of patients. It is expected that the other residents will offer assistance themselves and if not, will comply with the directive from preceptor when asked to help.

By completion of PGY-1 residents are expected to:
- Adhere to the DHMC Code of Professional Conduct.
- Demonstrate honesty and integrity at all times.
• Behave with high regard and respect for patients, colleagues, consultants, and all members of the health care team.
• Appreciate the effects of cultural and religious background on the patient’s approach and attitudes toward decision making, their disease, and treatment.
• Recognize the common ethical issues that face patients, their families, and caregivers related to chronic illnesses.
• Provide meaningful feedback to colleagues regarding their performance.
• Demonstrate a commitment to relieve pain and suffering
• Respond promptly and appropriately to clinical responsibilities including but not limited to calls and pages
• Carry out timely interactions with colleagues, patients and their designated caregivers
• Recognize and manage obvious conflicts of interest, such as caring for family members and professional associates as patients
• Ensure prompt completion of clinical, administrative, and curricular tasks
• Recognize the scope of his/her abilities and ask for supervision and assistance appropriately
• Maintain patient confidentiality
• Recognize that disparities exist in health care among populations and that they may impact care of the patient

By completion of PGY-2 residents are expected to:
• Recognize the scope of his/her abilities and ask for supervision and assistance appropriately
• Provide physical, psychological, social and spiritual support for dying patients and their families
• Provide leadership for a team that respects patient dignity and autonomy
• Recognize, respond to and report impairment in colleagues or substandard care via peer review process
• Recognize the need to assist colleagues in the provision of duties
• Recognize and take responsibility for situations where public health supersedes individual health
• Educate and hold others accountable for patient confidentiality

By completion of PGY-3 residents are expected to:
• Recognize the scope of his/her abilities and ask for assistance from consultants appropriately
• Serve as a professional role model for more junior colleagues
• Effectively advocate for individual patient needs
• Recognize and manage conflict when patient values differ from their own

System based practice

As noted above, patients will frequently require referrals for investigations such as mammography, bone density, direct referral for GI procedures; social services and communication with Managed Care Company to ensure patient receives prescribed medications. The resident is expected to develop an understanding of both the opportunities and limitations of the setting, be a patient advocate and a facilitator.

By completion of PGY-1 residents are expected to:
• Recognize the role of non-physician health care professionals in treating acutely ill patients
• Understand the role of multidisciplinary resources to prepare patients and their families for hospital discharge, home management of disease, nursing home placement, and end-of-life care.
• Consider alternative solutions provided by other teammates
• Recognize health system forces that increase the risk for error including barriers to optimal patient care
• Identify, reflect upon, and learn from critical incidents such as near misses and preventable medical errors
• Reflect awareness of common socio-economic barriers that impact patient care.
• Minimize unnecessary care including tests, procedures, and therapies for patients with basic inpatient illness

By completion of PGY-2 residents are expected to:
• Collaborate with other members of the health care team to assure comprehensive patient care.
• Manage and coordinate care and care transitions for patients discharged from the hospital service, including home, rehabilitation, interhospital transfer, and hospice.
• Understand mechanisms for analysis and correction of systems errors
• Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and decision-making

By completion of PGY-3 residents are expected to:
• Use evidence-based, cost-conscious strategies in the care of hospitalized patients with complex illness.
• Negotiate patient-centered care among multiple care providers.
• Demonstrate how to manage the team by utilizing the skills and coordinating the activities of inter-professional team members.

Didactic experiences
Each year the faculty from General Medicine participates in the noon conferences and Grand Rounds. In addition, everyday in the clinic a brief session is held with the residents on clinical topics. These sessions are valued by both the residents and faculty. Topics covered in the didactic conferences include:
1. Hypertension JNC VII guidelines
2. Health maintenance
3. Medical diseases in pregnancy
4. Management of hyperlipidemia
5. Cultural competence
6. Cancer screening
7. Counseling

Evaluation
The residents are evaluated by the preceptors on bi-annual basis. A mini- CEX is also performed and feedback given to the resident. Residents also evaluate the ambulatory experience and complete a self assessment to ascertain if learning objectives have been met.

<table>
<thead>
<tr>
<th>Assessment Tool</th>
<th>Type</th>
<th>Competency</th>
<th>PGY Level</th>
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<tbody>
<tr>
<td>Faculty assessment</td>
<td>Global</td>
<td>All</td>
<td>All</td>
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<tr>
<td>Peer evaluation</td>
<td>Multisource assessment</td>
<td>All</td>
<td>All</td>
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<tr>
<td>Faculty/Senior resident mini- CEX</td>
<td>Direct observation</td>
<td>All</td>
<td>PGY-2, 3</td>
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<tr>
<td>Patient evaluation</td>
<td>Multisource feedback</td>
<td>ICS, P, SBP</td>
<td>All</td>
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<tr>
<td>P - Professionalism</td>
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<td>ICS - Interpersonal and Communication Skills</td>
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<td>SBP - System Based Practice</td>
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Prepared by:
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Reviewed by:
Vihren Dimitrov, MD. Program Director
**INPATIENT MEDICINE**

**Goals:**
To understand the etiology, pathophysiology, clinical manifestations, management and prognosis of a wide variety of medical issues requiring admission to an acute care hospital. This includes both General Medicine and Subspecialty (Renal, Gastroenterology, Endocrine, etc) diagnoses and topics. To understand the risks, prevention, and treatment of iatrogenic illness and medical complications.

**Summary of Rotation:**
The Inpatient Medicine rotation is a 4 week rotation on the inpatient General Medicine Wards and accepts the majority of admissions from the Emergency Department and the Outpatient clinics, and the remainder from the ICU and tertiary care transfers from other health care institutions.

There are ten housestaff teams, each composed of a resident, three interns, and 1-2 medical students. The interns’ primary responsibilities are to be the primary contact with the patient and family, collect and present all relevant information on rounds, and help with management decisions. The resident’s primary responsibilities are to direct patient management, organize rounds in an efficient manner, and act as the leader of the team.

A Hospitalist is assigned to each team to teach on rounds, act as the primary physician for all patients on the team, and evaluate each team member.

There are no overnight calls. Teams accept patients every other day, each team is capped at 8 admissions. Each team member has clinic one day per week.

**Primary Educational Venues:**
- **Initial patient assessments** – including discussion with the Hospitalist.
- **Walk Rounds** – The hospitalist will round with the team 6 days a week and engage in bedside teaching and evaluate the housestaff’s patient management skills.
- **M&M Morning report** – Weekly discussion of a complex, thought provoking, intriguing case. A stepwise presentation of the case is presented, and attendee’s are asked to comment.
- **Journal Club** – Discussion of the medical literature. A specific question or issue is discussed, and supporting literature is examined in an Evidence Based context, focusing on the design and quality of the study, magnitude of benefit/harm, generalizability of the results, and impact on standard of care.
- **Morning Report** – Monday – Thursday, a resident focused discussion of cases admitted by the night team. The program director, associate program director, chair of medicine, hospitalists and subspecialists attend regularly.

**Grand Rounds** – Friday 8 AM, Department wide conference on a variety of medical subjects, predominantly features a visiting speaker.

**Noon Conference** – Three days per week, a didactic presentation on a medical subject. A structured curriculum is followed.

**Educational Resources:**
- **UpToDate** topics relevant to internal medicine (available online throughout the institution)
- **Access Medicine** didactic texts and article searching (available on line throughout the institution)
- **Ovid Database** (available online throughout the institution).
- **Medical Library** – Available on site, all major journals and textbooks are available.

**Rotation Specific Educational Goals by Competency and PGY Level**

**Medical Knowledge:**
By completion of PGY-1 residents are expected to: Demonstrates basic understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in Internal Medicine, including:
- Abscess/Cellulitis
- Atrial Fibrillation
- Bowel Obstruction / ileus
- Cardiac Ischemia
- Congestive Heart Failure
- COPD Exacerbation / Asthma
- Deep Vein Thrombosis
- Diabetic Ketoacidosis
- Diverticulitis
- Drug Overdose / Withdrawal
- Electrolyte and acid base abnormalities
- Endocarditis
- Gastrointestinal Bleeding
- Hepatitis, Acute and Chronic
- Hypertensive Urgency / Emergency
- Hypo- and Hyper-thyroidism
- Malignancy, undiagnosed
- Meningitis
- Osteomyelitis
- Pneumonia
- Pulmonary Embolism
- Pyelonephritis
- Renal Insufficiency, Acute and Chronic
- Skin Ulcers / Decubiti
- Stroke

By completion of PGY-2 residents are expected to:
Demonstrates advanced understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in Internal Medicine. Demonstrates advanced understanding of the pathophysiology, clinical manifestations, natural history, prevention, and principles of management of the common iatrogenic complications. Interpret complex laboratory tests, including:
- Serologies, Rheumatological panels
- Recognize subtle findings on routine imaging.

By completion of PGY-3 residents are expected to:
Demonstrates areas of current controversy / evolving understanding of the pathophysiology, clinical manifestations, natural history, and principles of management of the diseases commonly seen in Internal Medicine.

Demonstrates areas of current controversy / evolving understanding of the pathophysiology, clinical manifestations, natural history, prevention, and principles of management of the common iatrogenic complications. Incorporates Geriatric Assessments when appropriate

**Patient Care:**
By completion of PGY-1 residents are expected to:
- Acquire accurate and relevant history from the patient in an efficiently customized, prioritized, and hypothesis driven fashion
• Seeks and obtains appropriate, verified, and prioritized data from secondary sources
• Perform an accurate physical examination that is appropriately targeted to the patient’s complaints and medical conditions. Identify pertinent abnormalities using common maneuvers
• Accurately track important changes in the physical examination over time
• Synthesize all available data, including interview physical examination, and preliminary laboratory data, to define each patient's central clinical problem
• Develop prioritized differential diagnoses and evidence-based diagnostic / therapeutic plans for common inpatient conditions, including:
  - Abdominal Pain
  - Chest pain
  - Cough
  - Diarrhea
  - Dizziness
  - Dyspnea
  - Edema
  - Fever
  - Gastrointestinal Hemorrhage
  - Headache
  - Hemoptysis
  - Mental Status Changes
  - Nausea / Vomiting
  - Rash
  - Shortness of Breath
  - Swollen Joint
  - Syncope
  - Tachycardia / Bradycardia
  - Weakness
  - Weight Loss / Gain

Demonstrates competence, technical proficiency, and post procedure management of the basic Internal Medicine procedures:
  - Arterial blood gas
  - Nasogastric tube placement

With supervision, demonstrates competence, technical proficiency, and post procedure management in the complex Internal Medicine procedures:
  - Lumbar puncture
  - Paracentesis
  - Thoracentesis
  - Central venous catheter insertion

• Make appropriate clinical decisions based upon the results of common diagnostic testing, including routine blood chemistries, hematologic studies, coagulation tests, arterial blood gases, ECG, chest radiographs, pulmonary function tests, urinalysis and other body fluids

• Recognize situations with a need for urgent or emergent medical care including life threatening conditions
• Recognize when to seek additional guidance
• Provide appropriate preventive care and teach patient regarding self-care
• Under limited supervision, manage patients with common clinical disorders seen in the practice of inpatient general internal medicine
• Initiate management and obtain urgent assistance for patients with emergent medical conditions

By completion of PGY-2 residents are expected to:
• Demonstrate basic management of patients whose diagnosis is unclear.
• Initiate management and stabilize patients with emergent medical conditions
• Obtain relevant historical subtleties that inform and prioritize both differential diagnoses and diagnostic plans, including sensitive, complicated, and detailed information that may not often be volunteered by the patient
• Begin to role model gathering subtle and reliable information from the patient for junior members of the healthcare team
• Begin to demonstrate and teach how to elicit important physical findings for junior members of the healthcare team
• Identify some subtle or unusual physical findings that may influence clinical decision making, using advanced maneuvers where applicable
• Modify differential diagnosis and care plan based upon clinical course and data as appropriate
• Begin to recognize disease presentations that deviate from common patterns and that require complex decision making
• Demonstrate competence, technical proficiency, and post procedure management in all Internal Medicine procedures
• Make appropriate clinical decisions based upon the results of more advanced diagnostic tests
• Manage patients with conditions that require intensive care with limited supervision
• Manage patients with a broad spectrum of clinical disorders seen in the practice of general internal medicine with minimal supervision
• Manage complex or rare medical conditions with limited supervision
• Customize care in the context of the patient’s preferences, overall health, and wishes

By completion of PGY-3 residents are expected to:
• Demonstrate advanced management of patients whose diagnosis is unclear.

• Role model gathering subtle and reliable information from the patient for junior members of the healthcare team
• Demonstrate and teach how to elicit important physical findings for junior members of the healthcare team
• Routinely identify subtle or unusual physical findings that may influence clinical decision making, using advanced maneuvers where applicable
• Recognize disease presentations that deviate from common patterns and that require complex decision making
• Manage patients with conditions that require intensive care independently, with the assistance of critical care trained specialists when appropriate.
• Manage patients with a broad spectrum of clinical disorders seen in the practice of general internal medicine independently
• Manage complex or rare medical conditions independently
• Provide internal medicine consultation for patients with complex clinical problems requiring detailed risk assessment

Practice-Based Learning and Improvement:
By completion of PGY-1 residents are expected to:
• Appreciate the responsibility to assess and improve care collectively for patients on the inpatient service.
• Identify and begin to answer clinical questions through self-study as they emerge in patient care activities
• Access medical information resources to answer clinical questions and library resources to support decision making
• Respond welcomingly and productively to feedback from all members of the health care team including faculty, peer residents, students, nurses, allied health workers, patients and their advocates
• Actively seek feedback from all members of the health care team
• Actively participate in the department’s required teaching conferences.
• Develop time management skills to perform required tasks in a reasonable amount of time with satisfactory quality.

By completion of PGY-2 residents are expected to:
• Classify and precisely articulate clinical questions
• Identify and begin to answer clinical questions through self-study as they emerge in patient care activities
• Effectively and efficiently search electronic databases and evidence based summary information for original clinical research articles
• Begin to integrate clinical evidence, clinical context, and patient preferences into decision-making
• Communicate risks and benefits of alternatives to patients
• Begin to integrate teaching, feedback, and evaluation with supervision of interns’ and students’ delivery of patient care
By completion of PGY-3 residents are expected to:
- Demonstrate team leadership skills.
- Demonstrate effective negotiation and mediation skills with patients/families which are narcotic-seeking, angry/frustrated, or in disagreement with the plan of care.
- Engage patients in shared decision making for difficult, ambiguous or controversial scenarios
- Actively seek to understand patient differences and views and reflects this in respectful communication and shared decision-making with the patient and the healthcare team

Professionalism:
By completion of PGY-1 residents are expected to:
- Demonstrate honesty and integrity at all times.
- Behave with high regard and respect for patients, colleagues, consultants, and all members of the healthcare team.
- Appreciate the effects of cultural and religious background on the patient’s approach and attitudes toward decision making, their disease, and treatment.
- Recognize the common ethical issues that face patients, their families, and caregivers related to chronic illnesses.
- Provide meaningful feedback to colleagues regarding their performance.
- Demonstrate a commitment to relieve pain and suffering
- Respond promptly and appropriately to clinical responsibilities including but not limited to calls and pages
- Carry out timely interactions with colleagues, patients and their designated caregivers
- Recognize and manage obvious conflicts of interest, such as caring for family members and professional associates as patients
- Ensure prompt completion of clinical, administrative, and curricular tasks
- Recognize the scope of his/her abilities and ask for supervision and assistance appropriately
- Maintain patient confidentiality
- Recognize that disparities exist in health care among populations and that they may impact care of the patient

By completion of PGY-2 residents are expected to:
- Recognize the scope of his/her abilities and ask for supervision and assistance appropriately
- Provide physical, psychological, social and spiritual support for dying patients and their families
- Provide leadership for a team that respects patient dignity and autonomy
- Recognize, respond to and report impairment in colleagues or substandard care via peer review process
- Recognize the need to assist colleagues in the provision of duties
- Recognize and take responsibility for situations where public health supersedes individual health
- Educate and hold others accountable for patient confidentiality

By completion of PGY-3 residents are expected to:
- Recognize the scope of his/her abilities and ask for assistance from consultants appropriately
- Serve as a professional role model for more junior colleagues
- Effectively advocate for individual patient needs
- Recognize and manage conflict when patient values differ from their own

Interpersonal Skills and Communication:
By completion of PGY-1 residents are expected to:
- Demonstrate patient-centered interviewing techniques: a compassionate approach to history taking; the ability to modify interview techniques in response to the patient’s demeanor, cultural and/or religious background, and level of competency. Communicate sensitively and effectively with patients and with their families, including sensitivity to differences in race, culture, gender, sexual orientation, socioeconomic status, literacy, and religious beliefs
- Explain any complications of therapy in terms the patient can understand.
- Deliver appropriate, succinct, hypothesis-driven oral presentations
- Request consultative services in an effective manner
- Clearly communicate the role of consultant to the patient, in support of the primary care relationship
- Write complete, timely, and concise admission notes for all patients admitted.
- Write complete, timely, and concise progress notes documenting daily care of patients admitted.
- Utilize the electronic medical record to compose a complete, concise discharge summary. Ensure that the patient’s primary care physician and referring physician (when applicable) receives a copy of the discharge summary in a timely manner.
- Communicate effectively with colleagues when signing out patients or turning over care to another service.
- Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and decision-making

By completion of PGY-3 residents are expected to:
- Use evidence-based, cost-conscious strategies in the care of hospitalized patients with complex illness.
- Negotiate patient-centered care among multiple care providers.
- Demonstrate how to manage the team by utilizing the skills and coordinating the activities of inter-professional team members.

**Evaluation**
A written evaluation is given by the attending with a verbal feedback in the middle of the cycle. Residents also evaluate the experience.

<table>
<thead>
<tr>
<th>Assessment Tool</th>
<th>Type</th>
<th>Competency</th>
<th>PGY Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty block assessment</td>
<td>Global Assessment</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Peer evaluation</td>
<td>Multisource Feedback</td>
<td>All</td>
<td>All</td>
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<tr>
<td>Student evaluation</td>
<td>Multisource Feedback</td>
<td>PC, ICS, P</td>
<td>All</td>
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<tr>
<td>Faculty/Senior resident mini-CEX</td>
<td>Direct observation</td>
<td>All</td>
<td>PGY-2,3</td>
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<tr>
<td>Note review</td>
<td>Chart Audit</td>
<td>ICS</td>
<td>All</td>
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<tr>
<td>Procedure simulation</td>
<td>Direct observation</td>
<td>MK, PC, ICS</td>
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<tr>
<td>CRC evaluations</td>
<td>Multisource Feedback</td>
<td>ICS, P, SBP</td>
<td>All</td>
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**Prepared by**
Jean Daniel, MD, Associate Program Director

**Reviewed by**
Program director

Reviewed and Updated July, 2011
**MEDICAL INTENSIVE CARE UNIT**

**Goals:** The goal of curriculum in Medical Intensive Care Unit is to ensure that the residents acquire knowledge, skills and attitude necessary for managing critically ill patients, learning to recognize deterioration of status early and prevent progression to severe illness, deal with issues related to end of life care, and to utilize resources judiciously.

**Primary Teaching Methods and Setting**
The Critical Care Unit at Lincoln Medical Center is a 22 bed combined medical and cardiac care unit. Average daily census in MICU is 15-18. Residents are supervised by two attendings from Division of Pulmonary and Critical Care. The attending makes rounds in the morning. All cases are discussed in detail and pathophysiology and management discussed. Didactic conferences on critical care medicine related topics are conducted during the year and attendance by residents is mandatory.

**Learning Objectives in MICU**

**Physical examination skills**
The residents are expected to be able to do a detailed physical examination, recognize signs of inadequate perfusion, barotrauma, impending respiratory failure etc.

**Presenting complaints**
Residents are expected to be able to evaluate presenting complaints such as fever, shortness of breath, chest pain and neurological deficit.

**Differential diagnosis, evaluation and management of critical illnesses**
These include: acute respiratory failure, circulatory shock, severe electrolyte disturbances, drug overdose, acute renal failure, coma, endocrine disorders such as adrenal insufficiency, thyroid storm, DKA, hyperosmolar states, severe GI bleeding, TTP, sickle cell crisis, principles of blood transfusion.

**Use and interpretation of specific tests and procedures**
Residents are expected to learn the indications and contraindications of various invasive procedures done in the MICU, such as insertion of internal jugular and subclavian lines, insertion of pulmonary artery catheter and interpretation of hemodynamic profile, insertion of arterial lines, mechanical ventilation and use of non invasive ventilatory support.

**Competencies**
Residents are expected to develop competencies that are particular to the care of critically ill patients and address all 6 Internal Medicine Core Competencies. Specific examples are noted below:

**Patient Care**
Residents are expected to perform a detailed history and physical exam, evaluate the laboratory data and formulate a diagnosis and differential diagnosis, and to make management plans based on clinical judgment, scientific evidence and patient preferences. All of this is to be clearly reflected in the write ups.

**Medical Knowledge**
Residents are expected to acquire medical knowledge in the topics noted above. Specifically, these include: pathophysiology of shock states, respiratory failure, renal failure; appropriate investigations and management based on scientific evidence.

**Some of the procedures such as PA catheterization, performed in ICU are associated with significant morbidity. Residents must be familiar with the pitfalls in hemodynamic monitoring. Ability to recognize the wave forms, read pressures accurately, interpret the hemodynamic profile and plan appropriate management is essential. Residents must possess knowledge of vasoactive agents, neuromuscular blockers, and pharmacokinetics of drugs in critically ill and mechanical ventilation.**

**Practice based learning and improvement**
Residents are expected to continuously evaluate their management decisions utilize the knowledge in development of strategies to improve patient care. In case a complication occurs, such as pneumothorax, medication error, resident is expected to report to his/her superior immediately. A detailed and honest discussion with the team then takes place and corrective measures implemented if needed, to prevent future adverse events.

**Interpersonal and Communication skills**
Intensive care unit is a stressful environment for both physicians and patients and their families. Sounds from alarms, multiple providers, present a challenge to effective doctor-patient relationship. In addition, patients may be unable to communicate and express their wishes regarding care, because of presence endotracheal tube and sedation/paralysis. Residents are frequently involved in obtaining informed consent for the procedures and transfusion of blood products. Residents must be able to effectively communicate with patient/family, using narrative skills. For patients who are not expected to survive the ICU stay, residents are expected to communicate with family to ascertain patient preferences regarding end of life care, with compassion and understanding. In the beginning, this aspect of ICU experience can be intimidating to residents. They are however, expected to acquire the skill by participating in patient conference conducted by the attending physician and listening actively. ICU patients frequently require consultations from other services. The resident is expected to be able to write an intelligent consult and clearly formulate the question for the specialist. Residents must be good team players.

**Professionalism**
Residents are expected to demonstrate compassion, sensitivity, and respect in relationship with patients and family. Patient’s need for comfort must be addressed.

**System Based Practice**
ICU patients frequently require procedures and investigations for which they may need to be transported to other areas of the hospital. The residents are expected to be able to ascertain the utility of the results of investigation in management decision and be able to collaborate with the team members. Residents are expected to be knowledgeable about ethical and legal aspects of critical care such as, forgoing and withdrawal of life sustaining treatments, Do Not Resuscitate designation, Living Will, Durable Power of Attorney for health care decision.

**Didactic Experience**
The faculty from Pulmonary/ Critical Care division participates in formal education program, including noon conferences, Grand Rounds, Morbidity and Mortality conferences. Topics discussed in these conferences include:
1. Shock.
2. ARDS
3. Mechanical ventilation
4. Hemodynamic monitoring
5. Medical complications of pregnancy.

**Suggested reading**
Marino’s Textbook of ICU.
Journal articles from syllabus

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Curriculum Committee
### Medical ICU: 1st year

**Goals:**
1. To become a competent in critical care medicine by taking care of critically ill medical patients at a tertiary care hospital.
2. To develop proficiency in, to perform critical care procedures.
3. To understand the pathophysiology of disease in critically ill medical patients with multi-system disorders.
4. To be introduced to the principles of clinical investigation and decision analysis.

**Patient care:**

**Consultative:**
1. To provide excellent critical care services to patients in a medical ICU and provide continuous care as needed.
2. To be able to obtain a thorough and appropriate subspecialty history, accurate physical exam, interpret imaging and laboratory data, develop a differential diagnosis, outline a plan and evaluation and treatment.

**Procedural:**
1. To evaluate patients for critical care procedures.
2. To understand the indications, contraindications, risks and benefits of procedures including intubation, oxygen delivery, mechanical ventilation, hemodynamic support and central venous access including pulmonary artery catheterization, utilization, zeroing and calibration of transducers and use of amplifiers and recorders and advanced cardiopulmonary resuscitation and to be able to perform the above procedures safely and effectively.
3. To obtain informed consent for procedures.
4. To demonstrate caution and receptiveness to instruction during procedures.
5. Follow-up of patients post-procedure.

**Medical knowledge:**
1. To enthusiastically pursue medical knowledge and demonstrate dedication to contributing to medical knowledge.
2. To read text books, use computerized literature search and interpret medical literature.
3. To understand normal physiology and pathophysiology of disease, differential diagnosis, clinical evaluation and management of patients with multi-system disease.
4. To understand of the epidemiology, clinical manifestations, diagnosis and management of critical care diseases encountered in the medical ICU, Step-down units. This is taught and evaluated during teaching rounds daily when the residents go over the assessment and management of each patient.
5. Residents are encouraged to take part in educational activities and read about their patients. They are given a list of recommended readings.
6. To understand indications, contraindications, complications and limitations of critical care procedures including establishment and maintenance of stable airway, mechanical ventilation, respiratory care and oxygen delivery techniques, arterial puncture and analysis, insertion of central venous, arterial and pulmonary artery balloon flotation catheters, basic and advanced CPR.

**Practice-based learning and improvement:**
1. To be able to integrate knowledge, information and recommendations from multiple resources including specialized consultants in other fields in order to develop rational diagnostic and therapeutic plans.
3. To continue the process of acquiring skills and documenting the procedures required by ABIM.
4. To facilitate the learning of, students and other health care professionals.

**Interpersonal and communication skills:**
1. To present orally and in writing to the Attending and referring services in a timely manner. Residents are encouraged to discuss their assessment and plan with the ICU staff.
2. To understand and maintain compliance with documentation requirements.
3. To present at conferences, rounds and clinic.
4. To counsel and educate patients and their families.
5. To create and sustain a therapeutic and ethically sound relationship with patients and their families.

**Professionalism:**
1. To serve the interest of the patient above self-interest with altruism, accountability, honor, integrity, compassion, and respect.
2. To understand the principles of medical ethics and concepts of advanced direction.
3. To demonstrate concern about patient anxiety, comfort, and privacy during procedures.
4. To demonstrate intellectual honesty.
5. To demonstrate compassion and understanding to a group of socially, economically and racially diverse group of patients.

**Systems-based practice:**
1. Residents are encouraged to be the contact person for outside physicians and family members regarding the admission and care of their patients. They do this under the general supervision of the Attending.
2. To demonstrate an awareness of the issue of cost-effective medicine by discussing cost implications with the Attending without compromising quality of care.
3. To understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.
4. To know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.
Medical ICU rotation – 2nd year

Goals:
1. To become a competent consultant in critical care medicine by taking care of medical patients at a tertiary care hospital.
2. To develop proficiency in, to perform and supervise critical care procedures.
3. To understand the pathophysiology of disease in critically ill medical patients with multi-system disorders.
4. To be introduced to the principles of clinical investigation and decision analysis

Patient care:
Consultative:
1. To provide critical care services to patients in a medical ICU and provide continuous care as needed.
2. To be able to supervise 1st year residents effectively
3. To be able to obtain a thorough and appropriate subspeciality history, accurate physical exam, interpret imaging and laboratory data, develop a differential diagnosis, outline a plan and evaluation, and treatment.
4. To be able to interpret specialized imaging and laboratory and physiologic data in development of differential diagnosis and plan of evaluation and treatment of critically ill medical patients.
5. Use of pharmacokinetics in specialized setting of critical care such as use of continuous infusions of pressors, sedatives, insulin, paralytic agents, and fluids

Procedural:
1. To evaluate patients for critical care procedures.
2. To understand the indications, contraindications, risks and benefits of procedures including intubation, oxygen delivery, mechanical ventilation, hemodynamic support and central venous access including pulmonary artery catheterization, utilization, and advanced cardiopulmonary resuscitation and to be able to perform the above procedures safely and effectively.
3. Obtain informed consent for procedures.
4. To demonstrate caution and receptiveness to instruction during procedures.
5. Follow-up of patients post-procedure.

Medical knowledge:
1. To enthusiastically pursue medical knowledge and demonstrate dedication to contributing to medical knowledge.
2. To read text books, use computerized literature search and interpret medical literature.
3. To be able to critique published investigations and discuss with faculty possible topics for investigation.

Practice-based learning and improvement:
1. To be able to integrate knowledge, information and recommendations from multiple resources including consultants in other fields in order to develop rational diagnostic and therapeutic plans.
3. To continue the process of acquiring skills and documenting the procedures required by ABIM.
4. To facilitate the learning of residents, students and other health care professionals

Interpersonal and communication skills:
1. To be able to supervise 1st year residents effectively
2. To present orally and in writing to the Attending and referring services in a timely manner. To understand and maintain compliance with documentation requirements.
3. To present at conferences, rounds and clinic.
4. To teach medical students and ancillary staff at conferences and at the bedside.
5. To counsel and educate patients and their families.
6. To create and sustain a therapeutic and ethically sound relationship with patients and their families.

Professionalism:
1. To serve the interest of the patient above self interest with altruism, accountability, honor, integrity, compassion, and respect.

12. To understand the principles of medical ethics and concepts of advanced direction
3. To demonstrate concern about patient anxiety, comfort, and privacy during procedures.
4. To demonstrate intellectual honesty.
5. To demonstrate compassion and understanding to a group of socially, economically and racially diverse group of patients

Systems-based practice:
1. 2nd year residents are encouraged to be the contact person for outside physicians and family members regarding the admission, care and discharge of their patients. They do this under the general supervision of the Attending
2. To demonstrate an awareness of the issue of cost-effective medicine by discussing cost implications with the Attending without compromising quality of care.
3. To understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
4. To know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance
Medical ICU rotation – 3rd year

**Goals:**
1. To become a competent consultant in critical care medicine by taking care of critically ill medical patients at a tertiary care hospital.
2. To develop proficiency in, to perform and supervise critical care procedures.
3. To understand the pathophysiology of disease in critically ill medical patients with multi-system disorders.
4. To be introduced to the principles of clinical investigation and decision analysis.

**Patient care:**
Consultative:
1. To provide excellent critical care services to patients in a medical ICU and provide continuous care as needed.
2. To develop leadership skills and oversee care provided by 2nd year residents and interns.
3. To be able to obtain a thorough and appropriate subspecialty history, accurate physical exam, interpret imaging and laboratory data, develop a differential diagnosis, outline a plan and evaluation and treatment of critically ill medical patients.
4. To be able to able to interpret specialized imaging and laboratory and physiologic data in development of differential diagnosis and plan of evaluation and treatment of critically ill medical patients.
5. Use of pharmacokinetics in specialized setting of critical care such as use of continuous infusions of pressors, sedatives, insulin, paralytic agents, and fluids.
6. Advanced skills in understanding and application of the pathophysiologic basis of critical care medicine.

Procedural:
1. To evaluate patients for critical care procedures.
2. To understand the indications, contraindications, risks and benefits of procedures including intubation, oxygen delivery, mechanical ventilation, hemodynamic support and central venous access including pulmonary artery catheterization, utilization, zeroing and calibration of transducers and use of amplifiers and recorders and advanced cardiopulmonary resuscitation and to be able to perform the above procedures safely and effectively.
3. To continue to advance level of performance of critical care procedures
4. Obtain informed consent for procedures.
5. To demonstrate caution and receptiveness to instruction during procedures.
6. Follow-up of patients post-procedure.

**Medical knowledge:**
1. To enthusiastically pursue medical knowledge and demonstrate dedication to contributing to medical knowledge.

**Interpersonal and communication skills:**
1. To present orally and in writing to the Attending and referring services in a timely manner. Fellows are encouraged to discuss their assessment and plan with the housestaff.
2. To understand and maintain compliance with documentation requirements.
3. To present at conferences, rounds and clinic.
4. To teach housestaff, medical students and ancillary staff at conferences and at the bedside.
5. To counsel and educate patients and their families.
6. To create and sustain a therapeutic and ethically sound relationship with patients and their families.

**Professionalism:**
1. To serve the interest of the patient above self interest with altruism, accountability, honor, integrity, compassion, and respect.
2. To understand the principles of medical ethics and concepts of advanced direction.
3. To demonstrate concern about patient anxiety, comfort, and privacy during procedures.
4. To demonstrate intellectual honesty.
5. To demonstrate compassion and understanding to a group of socially, economically and racially diverse group of patients.

**Systems-based practice:**
1. To provide a continuous spectrum of care for the patients in specialized critical care units to advance through step down units to medical/surgical floor and discharge home.
2. Residents are encouraged to be the contact person for outside physicians and family members regarding the admission and care of their patients. They do this under the general supervision of the Attending.
3. To demonstrate an awareness of the issue of cost-effective medicine by discussing cost implications with the Attending without compromising quality of care.
4. To understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.
5. To know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

Reviewed and Updated July, 2011
CARDIOLOGY

GOALS
The Internal Residency program at Lincoln Medical center seeks to ensure that residents develop the skills, knowledge and attitudes requisite for a career in Internal Medicine. The elective in Cardiology, including the Coronary Care Unit enables residents to further develop their skills in the evaluation, diagnosis and management of cardiac disease, under supervision and guidance from Cardiologists. In addition to primary care, the resident acquires skills in performing the role of a consultant.

Teaching Methods and Settings
- Patient care, including the special procedures performed in Cardiology, is taught in the coronary care unit, and through the cardiology clinics and consultation service.
- Teaching is offered in every possible setting: bedside, methods, ambulatory, floor and critical care settings, under guidance in the non-invasive cardiology lab, rotation in a cardiac catheterization laboratory to obtain basic knowledge of invasive cardiology procedures.
- Didactic conferences are conducted regularly based on a schedule.
- Residents are encouraged to read material from textbooks, journals and a selection of articles representing areas, such as provided in this curriculum.
- Small group or one to one sessions between trainee and faculty member
- Learn along with participation of faculty members from the cardiology division in formal education programs including Medical Grand Rounds, Morbidity and Mortality conferences, Journal Club and Core conferences on specific topics. Attendance at these sessions is mandatory.

Educational Material
Educational reading material includes peer review journals and text-books. Manuals have been provided as educational tool for residents at Lincoln Hospital at the request of the department of medicine, and updated periodically.

RESPONSIBILITIES OF THE RESIDENT IN CARDIOLOGY

Clinical Responsibilities:
1. The Cardiology rotation for the resident will comprise of 4 weeks on consult service including outpatient experience.
2. Residents will have an elective experience for 4 weeks in the coronary care unit
3. Residents are responsible for answering cardiology consultations requested.

Academic Activities:
9. Discussions during rounds will be the main source of teaching while on the cardiology rotation. This will be provided in all settings. Duration and intensity of discussions will relate to work load and the settings.
10. Noninvasive procedures may be reviewed with the attending whenever needed.
11. Attendance at cardiology noon conferences is mandatory.
12. The resident may choose to present material from journals while on rotation.
13. The resident is expected to read relevant material pertinent to the subspecialty.

Resident Competency and Responsibilities by Year of Training
PGY 1 Resident responsibilities
- Gather relevant patient data
- Perform physical examination and interpret findings
- Interpret electrocardiograms and basic laboratory data
- Interpret basic radiographic studies

PGY 2 Resident responsibilities
- In addition to the above, supervise the junior resident
- Improved data gathering and interpretation
- Ability to make decisions based on findings
- Ability to counsel patients
- Ability to consider referrals when appropriate

PGY 3 Resident responsibilities
- In addition to the above, demonstrate ability to function with minimum supervision and take decisions as a consultant

Evaluation Process of Residents
- The residents are expected to evaluate their performance in the management of patients with cardiovascular problems and identify areas for improvement.
- The residents are in turn are evaluated by the supervising resident and attending in all six competencies using a point scale.
- Both a written and verbal evaluation is expected from the attending physician.

LEARNING OBJECTIVES IN CARDIOVASCULAR DISEASE

Physical Examination Skills:
Understand the bedside evaluation findings relating to jugular venous pulse, arterial pulse, blood pressure, heart sounds, murmurs and maneuvers pertinent to cardiovascular examination.

Presenting Complaints:
Residents should be able to evaluate appropriately the presenting complaints and problems relating to cardiovascular illness such as dyspnea, chest pain, palpitation, syncope, edema and other complaints.

Differential Diagnosis, Evaluation and Management of Cardiac Disease:
These include coronary artery disease and risk factors, heart failure (systolic and diastolic), arrhythmias, valvular heart disease, common congenital heart diseases in adults, cardiomyopathy, pericarditis and endocarditis. In particular, cardiac emergencies such as acute coronary syndromes, cardiac tamponade, life threatening arrhythmias, hypertensive emergencies, pregnancy and heart disease, and aortic dissection should be promptly identified and managed.

Use and Interpretation of Specific Tests and Procedures:
Residents should be able to understand the indications and contraindications of specific procedures, such as hemodynamic monitoring, cardiovascular, temporary pacemaker implantation, etc. At the end of the rotation, the house staff should have basic knowledge to appropriately interpret tests such as cardiac enzymes, and EKGs, with working knowledge of echocardiography, stress testing and nuclear imaging in addition to understanding the basic indications of cardiac catheterization.

Therapeutic modalities:
All residents are mandated to have BCLS and ACLS certification, with emphasis on knowledge of various algorithms. Use of thrombolytic, antithrombotic and antiplatelet therapy should be clearly understood. Indications and contraindications of various cardiovascular agents will be emphasized.
House staff Evaluation:
During the rotation, the house-staff will be evaluated for their skills and knowledge by the attending faculty and will be notified about their performance.

Competency Based Learning Objectives
Residents are expected to develop competencies that are particularly relevant to the care of patients with cardiac diseases and that address elements of all 6 Internal Medicine Core Competencies. Specific examples are noted below:

Patient Care:
- Residents are expected to be able to develop and implement effective patient management
- Be able to perform a thorough history and physical examination, with particular emphasis on cardiovascular system
- Be able to request appropriate tests, synthesize data, and make recommendations based on scientific evidence and patient preference.

Medical Knowledge:
- Residents are expected to acquire knowledge in the cardiovascular diseases, risk assessment, be familiar with clinical guidelines for common cardiac disorders and understand pathophysiology of disease process
- Learn to initiate diagnostic evaluation for common cardiac disorders (such as heart failure, hypertension, coronary artery disease, arrhythmias, etc.)
- Become familiar with the evaluation of common cardiac disorders and the modalities of treatment.
- Under supervision, construct an appropriate diagnostic and care plan for common cardiac disorders

Practice Based Learning and Improvement:
- Residents are expected to be able to evaluate their performance and identify areas for improvement
- They must continuously develop strategies to improve their quality of care.
- Exhibit self learning through independent use of recommended resources
- Use information technology to access and retrieve material for self education.
- Utilize practice based learning and current literature to generate appropriate care plans

Interpersonal and Communications Skills:
- Residents are expected to learn to communicate appropriately with patients and counsel them for aspects of preventive care, compliance with medications and follow up.
- Develop rapport in dealing with patients in a professional manner, and become aware of the influence of cultural differences for good patient care.
- The resident is expected to be a good team player in interdisciplinary management of patients; appropriate interaction is expected with team members such as social worker, nurse, nutritionist, pharmacist and others.
- During consultations, the resident is expected to clearly communicate the findings and recommendations.
- Understand negotiating situations in “difficult” encounters

Professionalism:
- Residents are expected to demonstrate respect, compassion, and trustworthiness when relating to patients and understand that good physician-patient relationships lead to better outcome.
- Residents are expected to deal with their peers, nurses and other members of the team in a professional manner.
- Recognize the need for psychological support, spiritual support and cultural beliefs of patients and caregivers.
- Be sensitive to discussions relating to life and death situations in ill patients and decisions pertinent to advance directives and end of life care.

System Based Practice:
- Understand that patients with cardiac disorders require referrals for cardiac electrophysiology, stress testing, echocardiography, cardiac catheterization and other tests.
- Understand the need to refer some with chronic cardiac conditions (e.g. heart failure) for home care services.
- Residents should understand the interaction in this regard with multidisciplinary team members.
- The resident should develop an understanding of the system and be a facilitator in transitions of care for the patient.
- Goals of care should be patient-centered

CURRICULUM
1. Management of chronic stable angina
2. Management of acute myocardial infarction
3. Interpretation of the Electrocardiogram
4. Assessment of cardiovascular risk
5. Drug induced heart disease
6. Cardiovascular complications of cocaine use
7. Pregnancy and heart disease
8. Cardiac arrhythmias
9. Management of dyslipidemia
10. Evaluation and management of atrial fibrillation
11. Syncope
12. Appropriate use of cardiovascular tests in primary care
13. Evaluation and management of chronic systolic HF
14. Approach to patients with heart failure with normal ejection fraction
15. Medical management of peripheral arterial disease
16. Anti-arrhythmics
17. Hypertension detection, treatment and control
18. Cardiovascular therapeutics
19. Anticoagulants in cardiovascular disease
20. Review of clinical signs: physical examination
21. Cardiomyopathies
22. Pericarditis
23. Common drug interactions in cardiology
25. Endocarditis
26. Valvular heart disease
27. Aortic dissection
28. Cardiovascular stress testing: types of stress tests and indications for use
29. Pacemakers
31. Prepare and follow patients undergoing cardiac catheterization (at Bellevue)
32. Peri-operative cardiovascular evaluation for non-cardiac surgery

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Subspecialty Education Coordinator

Reviewed by:
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CARDIAC CARE UNIT/CARDIAC CATHETERIZATION LABORATORY ROTATION AT BELLEVUE MEDICAL CENTER

Goals: The goal of rotation in Cardiac Care Unit/Cardiac Catheterization Laboratory at Bellevue Medical Center is to ensure that the residents acquire knowledge, skills and attitude requisite for evaluation and management of patients with diverse cardiac problems (such as coronary artery disease, acute myocardial infarction, valvular heart disease and patients who have or are to undergo cardiac surgery) with particular emphasis on the indications and interpretation of cardiac catheterization studies.

Primary Teaching Method and Setting The resident will spend 2 weeks at Bellevue Medical center. They will function as a member of the CCU team and. The resident will be the primary physician for patients assigned to him/her, and will provide care under the supervision of the BMC PGYIII, cardiology fellow and attending physician. Resident will do a detailed history and physical examination on patients assigned, synthesize data and formulate a comprehensive differential diagnosis and management plan. Resident will present the case to the attending physician who is ultimately responsible for the patients. Resident will be responsible for scheduling all investigations, obtaining consults when indicated and for following up on the results of investigations. Resident will participate in daily rounds with senior resident, fellow and attending and in planning and following the results of cardiac catheterizations.

Learning Objectives in Cardiology

Physical Examination Skills Understand the bedside evaluation findings relating to jugular venous pulsations, heart sounds, murmurs and maneuvers.

Presenting Complaints Residents should be able to evaluate appropriately, the presenting complaints of chest pain, palpitations, syncope, and dyspnea.

Differential Diagnosis, Evaluation and Management of Cardiac Diseases These include acute coronary syndrome, cardiac arrhythmias, valvular heart diseases, pericarditis, myocarditis, patients post cardiac catheterization, percutaneous coronary intervention, coronary artery bypass graft, cardiac tamponade, hypertensive emergencies, and aortic dissection.

Use and Interpretation of Specific Tests and Procedures Residents will gain additional experience in evaluation of patients that need cardiac catheterization and the interpretation of the results in addition to management of patients with pulmonary artery catheters, cardioversion, and temporary transvenous pacemaker. Residents will expand upon the knowledge about interpretation of electrocardiograms, cardiac enzymes, and indications of cardiac catheterization.

Therapeutic Modalities Residents will acquire understanding of the various therapeutic modalities such as antplatelet and thrombolytic therapies. Indications and contraindications will be emphasized.

Competencies Residents are expected to develop competencies that are particularly relevant to the care of patients with cardiac diseases requiring cardiac catheterization and that address elements of all 6 Internal Medicine Core Competencies. Specific examples are noted below:

Patient Care: Residents are expected to develop and implement effective patient management plans and integration of patient care and to make informed recommendations to patients based on clinical judgment, scientific evidence and patient preference.

Medical Knowledge: Residents are expected to learn to: understand pathophysiology of coronary artery disease; indications for cardiac catheterization; management of patient on thrombolytic therapy; management of patients following cardiac catheterization; management of patients with valvular heart disease.

Practice Based Learning and Improvement: Residents are expected to analyze and evaluate their practice experiences to improve their practice, develop an ability to investigate and evaluate patients with coronary artery and valvular heart diseases, appraise and assimilate scientific evidence, identify areas for improvement, review the published guidelines for cardiovascular diseases and practice evidence based approach to patient care.

Interpersonal and Communications Skills: Cardiac care unit is a stressful environment for the patients who undergo a variety of invasive procedures. Residents must develop a relationship with the patients using effective verbal and nonverbal techniques, questioning and narrative skills to communicate effectively. Resident must be a team player. The patients may require consultations from other services. The resident must be able to communicate a brief history and physical examination, summary of course and formulate clear question for the consultant.

Professionalism: Residents are expected to demonstrate respect, compassion, integrity and trustworthiness in relationship with the patients. Resident must be sensitive to the needs and concerns of patients diagnosed with cardiac diseases and facing limitation in lifestyle.

System Based Practice: Resident must learn the system at BMC which may be different, to improve patient care. Patients with cardiac conditions and those post cardiac catheterization may require referrals for rehabilitation services. Resident must learn the system for making such referrals and coordinate patient care. Resident must use alternate care venues such as step down/ intermediate care beds appropriately.

Didactic experiences Residents are expected to participate in all of the conferences/grand rounds and other activities at Bellevue Medical Center during the rotation.

Evaluation Residents will be evaluated at the end of the rotation by the Director of Cardiology or designee, using a nine point scale. The evaluation will be discussed with the resident and written evaluation will be sent to the Program Director at Lincoln Medical Center. The residents will be expected in turn to evaluate their experience and submit to the Program Director.

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Prepared by
Lekshmi Dharmarajan, MD. Chief of Cardiology.
Norma Keller, MD, Chief, CCU at Bellevue

Reviewed by:
Vihren Dimitrov, MD. Program Director

Reviewed and Updated: July, 2011
GERIATRICS

Goals: The goal of curriculum in Geriatrics is to ensure that residents learn the fundamentals of care of elderly patient. The rotation provides experience in caring for both biomedical syndromes and psychosocial concerns that commonly affect the elderly patient. The residents will achieve clinical skills to identify medical diseases associated with aging, and altered presentation of disease in elderly. Faculty geriatrician will assist residents in understanding the aging process as it influences health and function.

Half month rotation is mandatory for senior residents, residents may electively request full month of rotation.

Primary Teaching Methods and Settings: Residents will encounter elderly patients on Geriatrics continuity clinic, geriatrics comprehensive evaluation clinic and providing inpatient consultations for GEM (Geriatric evaluation and management) patients on medical and other services.

Resident performs a history and comprehensive physical examination which must include review of medications, assessment of functional, social, psychological and mental status, including assessment of geriatric syndrome. The resident formulates a diagnosis and management plan based on the data collected incorporating age related changes and special needs for associated co morbidities. The supervising attending physician verifies the findings, critiques the presentation and provides education, with discussion of pathophysiology of diseases, altered drug metabolism and special needs of elderly.

Learning Objectives in Geriatrics:

Physical examination skills

Residents are expected to perform a patient centered detailed physical evaluation with emphasis on mental status, special senses such as vision and hearing, gait, balance, musculoskeletal system, pressure sores, and signs of physical abuse. Resident should be able to perform a functional assessment. Junior residents are expected to learn this skill thoroughly.

Presenting complaints

Residents are expected to appreciate the striking heterogenous presentation found among elderly person with respect to physiological function, health status, belief systems, values and personal preferences. With special emphasis on presenting complaints such as dizziness, syncope, anxiety/depression, insomnia, incontinence, constipation, gait disturbances, memory loss, visual and auditory impairment, inability to cope, falls etc.

Differential diagnosis, evaluation and management of diseases

In the elderly, diseases may present quite differently with classical signs and symptoms being absent or blunted. Residents are expected to be able to analyze the findings on physical exam and laboratory investigations to formulate a differential diagnosis and management plan, keeping in mind the age related biological changes, associated co morbid conditions can impact on disease presentation and complications. Resident should demonstrate an understanding of the evaluation and management of geriatrics syndromes including dementia, delirium, depression, bowel and bladder incontinence, falls, nutrition and polypharmacy. Goal for care plan must be based on previously expressed wishes if patient lacks decisional capacity, and discussion with family when appropriate. Senior residents are expected to master this part at the completion of this rotation

Use and interpretation of special tests and procedures

Residents are expected to be able to order tests appropriately. A risk benefit analysis should be performed before technically complex invasive procedures are considered.

Competencies:

Residents are expected to develop competencies by completion of rotation that are relevant to the problems of elderly and address all 6 internal Medicine Core Competencies.

Patient care:

Residents are expected to complete comprehensive evaluations of elderly patient with regard to full medical interview, physical, gathering data from multiple sources for assessment of functional status and focused care needs

Administer and assess common clinical measures of physical, cognitive and psychological functioning, including mobility, gait and balance, pressure ulcer, deconditioning, incontinence

Assess psychosocial challenges seen in elderly - habitats, elder abuse and neglect, depression and suicidality, substance abuse, home safety

Goals for diagnosis must be established based on previously expressed wishes if patient lacks decisional capacity, and discussion with family when appropriate.

Protocols of care must be adjusted for patient’s age and comorbid conditions. Residents should also be aware if there are any environmental factors in patient’s environment that pose a risk to patient health and give appropriate advice to caregiver

Care plan must include involvement of multidisciplinary team – social worker, nurse, physical therapist, pharmacist, nutritionist, home health services and mental health personnel as necessary

Medical knowledge:

Residents are expected to demonstrate understanding of the following

- Normal age related changes, variable presentation of illness, response to therapy, pharmacokinetics and dynamics

- Common geriatric clinical syndrome and its evaluation

- Identify medication side effects and medication reconciliation

- Principles of biomedical ethics

- Provide comprehensive individualized care plans and symptomatic palliative care consistent with patient centered goal under supervision

- Principles of fitness, exercise, rehabilitation as applied to older people

- Nutritional needs of elderly population

- Risk and benefits of surgical intervention, pre operative evaluation and post operative care

- Evidence based approach is important when treating patient of any age. However, patients above a certain age and with chronic conditions are specifically excluded from the clinical trials. Medical literature should be carefully and critically read when caring for elderly patients.

Practice based learning and improvement:

Residents are expected to analyze their experience in taking care elderly patients to determine how care of elderly differs from young patient with same medical condition.

Use information technology to access and retrieve materials for self-education

Demonstrate improvement in clinical management of elderly patient by continually improving knowledge and skill during rotation.

Interpersonal and communication skills:

Establish rapport with elderly patients and their families or surrogates

Engage patient and their families or advocates in shared decision making, using family discussion as needed. Under supervision determine decision making capacity and engage in advance directives discussion

Communicate effectively with interdisciplinary team to promote care coordination

Generate appropriately focused documentation that clearly articulates principles of geriatric assessment including relevant issues and goal setting

Communicate with referring physician in appropriate manner

Professionalism:

Residents are expected to understand and respond compassionately to issues of culture, sex, disability privacy and confidentiality to all elderly patient and their families.

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Recognize the importance of psychological and spiritual support for elderly patients and their family, reflecting awareness of common ethical issues related to end of life care facing elderly and their families.

**System based practice:**
Residents are expected to have an understanding of the system and be able to collaborate with other members of the team to provide optimal care to the elderly patients who usually require more services including rehabilitation, social services, home care, transportation, long term care etc.

**Responsibility according to level of training:**

**PGY 1:** Residents are responsible for:
- Gathering relevant patient data
- Performing and interpreting physical examination findings
- Performing basic procedures and interpret data
- Interpreting laboratory tests
- Interpreting basic radiographic studies

**PGY 2** will have improved competence and demonstrate:
- Improved data gathering and physical examination skills
- Improved knowledge
- Improved decision making
- Enhanced ability to counseling

**PGY 3** will approach mastery and demonstrate the ability to function as consultant

**Didactic experience**
The faculty in Geriatrics Division participate in all educational activities offered in the program such as Morning Report, Core conferences, Morbidity and Mortality conferences and Grand Rounds. Residents are expected to attend all of the educational activities. Some of the topics covered in the conferences include:
1. Dementia/ Delirium
2. Urinary incontinence
3. Pressure ulcer
4. Falls
5. Medication in elderly
6. Nutrition in elderly
7. Age related biological changes
8. Dizziness in elderly

**Suggested reading:**
1. Articles from Syllabus/Up to dates
2. Geriatric section from Textbooks of medicine.

**3. AGS official site**
4. Principle of Geriatric Medicine and Gerontology; Mc Graw-Hill

**Evaluation:** Residents are given verbal feedback on an ongoing basis and provided an online evaluation at the end of the rotation in Geriatrics service. Residents are also expected to evaluate their own performance at the end of the rotation and at periodic intervals to assess if learning objectives are being met.

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**Prepared by:**
Malay Das, MD. Chief Geriatrics Division Subspecialty Education Coordinator

**Reviewed by:**
Vihren Dimitrov, MD. Program Director
GASTROENTEROLOGY

Goals: The goal of curriculum in gastroenterology is to ensure that the residents develop knowledge of epidemiology, pathophysiology and management of common gastrointestinal problems.

Primary Teaching Methods and Setting
When on GI rotation, the residents spend their time in endoscopy unit, clinic, and consultation service. In all these areas they work under direct supervision of a teaching attending physician. In clinic and on inpatient unit when doing consultation, the resident performs initial evaluation, gathers data, analyzes it and formulates a diagnosis and recommendations. The case is then presented to the attending, who critiques resident’s note, and writes his/her own note. Residents are taught during these activities by the attending. An evidence based approach is encouraged. Didactic conferences on topics related to gastroenterology are conducted by the faculty in GI during the academic year. In addition, several times a year, GI problems are topics for Grand Rounds. Attendance by residents in these conferences is mandatory.

Learning Objectives in Gastroenterology

Physical examination skills
The residents are expected to perform a detailed history and physical examination on every patient with particular emphasis on examination of abdomen for hepatomegaly, splenomegaly, and signs of peritonitis and obstruction, and extra abdominal signs of liver disease.

Presenting Complaints
Residents are expected to be able to evaluate appropriately presenting complaints such as abdominal pain, vomiting, diarrhea, constipation, and gastrointestinal bleeding.

Differential Diagnosis, evaluation and management of GI diseases
These include: Acute and chronic hepatitis, Cirrhosis of liver; upper and lower GI bleeding; peptic ulcer disease; GERD; inflammatory bowel disease; pancreatitis; malignancies.

Use and interpretation of specific tests and procedures
Residents are expected to be able to interpret liver function tests, hepatitis serology, viral load autoimmune tests, and flat plate of abdomen. Residents are encouraged to learn to perform flexible sigmoidoscopy and become proficient. In patients with abdominal pain, CT scan is to be ordered after careful consideration of the need and impact of the results on outcome.

Competencies
Residents are expected to develop competencies that are relevant to the care of patients with abdominal diseases and address elements of all 6 internal medicine Core Competencies. Specific examples are listed below:

Patient care
Residents are expected to evaluate patient in detail, perform appropriate tests, analyze the data and formulate a diagnosis and management plan. It is a common practice to perform some tests such as CAT scan inojudiciously and excessively, for evaluation of abdominal problems. Residents are expected to evaluate each patient carefully and order tests according to pre-test probabilities. This is essential in order to ensure that the patients are not subjected to unnecessary investigations and resources are utilized judiciously. An evidence based approach to patient problems is expected.

Medical Knowledge
Alcoholism and substance abuse are common in the indigent population at Lincoln Medical Center. Residents are expected to be knowledgeable in the complications of both such as, cirrhosis of liver, portal hypertension, hepatitis. Hepatitis C is also prevalent in the patients with history of injection drug use. Residents are expected to be knowledgeable about the indications for treatment.

Practice based learning and improvement
Residents are expected to review their practice periodically to determine if their practice meets standard of care. When opportunities for improvement are noted, residents are expected to develop strategies for improvement and monitor their progress.

Interpersonal and Communication skills
Screening for diseases such as colon cancer, which is curable if detected in early stages, is done in less than 25% of the population in our neighborhood. This may be due to provider complacency and patient ignorance. Residents are expected to develop skills to communicate effectively with the patient need for screening and diagnostic studies, and provide information regarding the options including risks and benefits. Counseling for abstinance from alcohol and drugs is to be provided. This may need reinforcement in several sessions.

Professionalism
Residents are expected to demonstrate compassion, integrity in dealing with the patients and peers, and be a good team player. Awareness of need for privacy, confidentiality, and comfort (during procedures) is crucial.

System based practice

Patients with gastrointestinal problems, and those requiring screening measures, may require referrals, such as financial clearance, scheduling, etc. The resident is expected to be knowledgeable about the options available, and collaborate with the staff in ensuring that appropriate care is delivered.

Responsibility according to level of training:

PGY 1: Residents are responsible for gathering relevant patient data; performing and interpreting physical examination findings; performing basic procedures and interpret data; interpret basic radiographic studies.

PGY 2 will have improved competence and demonstrate improved data gathering and physical examination skills.

PGY 3 will approach mastery and demonstrate the ability to function as consultant.

Evaluation
Residents are expected to evaluate their competence in management of patients with gastrointestinal diseases at the end of the rotation and at periodic intervals, plan and implement strategies for improvement, and re-evaluate after a specified interval. Residents are evaluated by the attending physician and the evaluation shared both verbally and in writing.

Suggested reading/ Didactic experience
The faculty in the Division of Gastroenterology are active participants in the educational activities offered in the program, such as Morning Report, Core conference series, Morbidity and Mortality and Grand Rounds. Some of the topics covered during the academic year are:

Lectures:
- Overview of GI symptoms and signs.
- Acute & Chronic Diarrhea.
- Malabsorption Syndrome.
- GERD & Peptic Ulcer Disease.
- Irritable Bowel Syndrome.
- Acute & Chronic Pancreatitis.
- Cholelithiasis.
- Acute & Chronic Viral Hepatitis.
- Management of complications of Cirrhosis.
- Non colonic GI Malignancies.
- Colon Polyp/Cancer.
- Nutrition.
End of Rotation:
Residents are expected at the end of the rotation to be conversant with in these 4 topics
1) Management of complications of Cirrhosis
2) Management of Hepatitis C and Hepatitis B
3) Management of Acute GI bleed
4) Understand CRC screening guidelines and management of invasive Colorectal Cancer (CRC)

Test:
20 MCQ questions will be given to each Resident completing 4 weeks.
Powerpoint presentation of a GI topic of the Resident choice for Journal Club on the last Friday of the Resident's Rotation

Evaluation:

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Suggested Reading:
2) Post Polypectomy Surveillance: A Consensus update by the US Multi-Society Task force on Colorectal Cancer and the American Cancer Society. Winawer et al.; Gastroenterology 2006; 130:1872-1885
20) Incidence and Predictors of Hepatocellular Carcinoma in Patients with Cirrhosis. Inoannou et al . Clinical Gastroenterology & Hepatology 2007;5:938-945
NIH Consensus Development Conference 2008: Management of Hepatitis B
NIH Consensus Development Conference 2002: ERCP for Diagnosis and Therapy
Diagnosis and Treatment of Acute or Persistent Diarrhea: Guerrant et al ; Gastroenterology 2009;136;1874-1886
Treatment of Clostridium Difficile Associated Disease: Lamont et al: Gastroenterology 2009;136;1899-1912
Randomized controlled Trial of Carvedilol v. Variceal Band Ligation for prevention of the first Variceal bleed. Hayes et al. Hepatology .50:3;825-833

Reviewed and Updated July, 2011

Colorectal Cancers after Colonoscopy frequently result from missed lesions. Robertson et al. Gastroenterology & Hepatology 2010;8:858-864

American Association for the Study of Liver Diseases practice guideline on Hepatocellular Carcinoma 2010: An update www.aasld.org

American Association for the Study of Liver Diseases practice guideline on Management of Adult Patients with Ascites due to Cirrhosis 2009: An update www.aasld.org


Duration of pain is correlated with elevation in Liver Function Tests in patients with symptomatic Choledocholithiasis, El Halabi et al. Clinical Gastroenterology & Hepatology 2010;8:1077-1082

International Consensus Recommendations on the management of patients with nonvariceal Upper Gastrointestinal Bleeding. Annals of Internal Medicine 2010;152:101-113

Colonoscopy withdrawal time and the risk of neoplasia at 5 years. Weiss et al., American Journal of Gastroenterology 2010;105:1746-1752

Lower Gastrointestinal Bleeding. Rockey. Gastroenterology 2006;130:165-171


42) American Gastroenterological Association Consensus Development Conference on the use of Biologics in the treatment of Inflammatory Bowel Disease Gastroenterology 2007;133:312-339


49) Proton Pump Inhibitor co-therapy with Clopidogrel: Is there GI benefit or Cardiovascular harm? Laine. Gastroenterology 2011;140:769-782


55) Importance of Specimen size in Accurate Needle Liver Biopsy evaluation of Patients with Chronic Hepatitis C. Bodenheimer et al. Clinical Gastroenterology & Hepatology 2005; 3: 930-935


61) Conventional Medical Management of Inflammatory Bowel Disease. Travis et al. Gastroenterology 2011;140:1827-1837


Sulaiman Azeez MD
Clinical Assistant Professor of Medicine, Weill Medical College of Cornell University, Chief of Gastroenterology & Hepatology Subspecialty Education Coordinator

Reviewed by: Vihren Dimitrov, MD. Program Director

Reviewed and Updated July, 2011
HEMATOLOGY/ONCOLOGY

Goals
The goal of curriculum in Hematology and Oncology is to ensure that the residents acquire knowledge, skills and attitudes necessary for management of patients with malignancies and hematological problems and to understand multimodality therapy of cancer.

Primary Teaching Method and Setting
Residents are taught hematology and oncology on inpatient units when answering consults from medical units, patients seen in the outpatient clinics, chemotherapy room, review of histopathology, and examination of peripheral smears and bone marrow in sessions conducted by the attending, Tumor Board conference conducted in collaboration with the surgical service, and core conferences.

Learning Objectives in Hematology/oncology

Physical Examination Skills
Residents are expected to be able to perform a detailed examination and identify enlarged lymph nodes, breast mass, splenic enlargement and cutaneous manifestation of coagulopathy, and systemic malignancies.

Presenting Complaints
Patients with hematologic problems usually present with shortness of breath, fatigue, easy bruisability and infections. The resident must learn to include hematologic conditions in the approach to patients presenting with weight loss, anorexia, night sweats, and fever.

Differential Diagnosis, Evaluation and Management of Diseases
These include anemias, bleeding disorders, leukemias, myeloproliferative disorders, hypercoagulable states, sickle cell disease, lymphomas, multiple myeloma and common malignancies such as breast, lung, and colon.

Use and Interpretation of Specific Tests and Procedures
Residents should be able to interpret peripheral smears, bone marrow aspirate, and coagulation studies. Residents will review the histopathology on the patients who undergo invasive diagnostic procedures such as lymph node biopsy, biopsy of lesions.

Therapeutic Modalities
Residents should learn basic principles of transfusion medicine, indications, and complications of different blood products. Principles of chemotherapy with complications of drugs and radiotherapy.

Compeptencies
Residents are expected to develop competencies that are particularly relevant to the care of patients with cardiac diseases and that address elements of all 6 Internal Medicine Core Competencies. Specific examples are noted below:

Patient Care:
Residents are expected to develop and implement effective patient management plans, integrate patient care and make informed recommendations to patients based on clinical judgment, scientific evidence and patient preference. When dealing with patients with malignancies the resident should be able to have a discussion about end of life care, especially with respect to pain management, life sustaining measures and DNR status. Resident should be able to guide patient in executing advance directives. Need for identification of social services and psychiatrist should be part of evaluation of all cancer patients.

- Perform an effective history and physical exam, and direct the diagnostic evaluation of patients presenting with:
  - Abnormal bleeding or bruising
  - Petechiae
  - Localized or generalized lymphadenopathy
  - Pallor
  - Splenomegaly
  - Recurrent infections
  - Recurrent venous and/or arterial thrombosis
  - Cytopenias
  - Erythrocytosis
  - Leukocytosis
  - Thrombocytosis
  - Abnormal prothrombin and partial thromboplastin times
  - Neutropenic fever
  - Hypercalcemia of malignancy

- Interpret results of the following tests in patients with known or suspected hematologic disorders:
  - Peripheral smear review
  - Bone marrow biopsy and aspiration
  - Flow cytometry and cytogenetics
  - Clotting assay
  - Hemoglobin electrophoresis
  - Iron studies
  - Lymph node biopsy
  - Serum and urine electrophoresis
  - Radiographic studies in the assessment of adenopathy and splenomegaly

- Treat patients with the following interventions, including monitoring appropriately for adverse events:
  - Common chemotherapeutic agents
  - Plasmapheresis
  - Transfusion of blood products
  - Radiation therapy

- Evaluate and manage the following problems in patients receiving treatment for hematologic malignancies:
  - Fatigue
  - Nausea/vomiting
  - Oral ulcers
  - Pain
  - Weight loss/poor nutrition

- Assess a patient with terminal illness for palliative care and implement a palliative care plan.

- Provide effective comfort care at the end of life, including managing the patient’s pain and anxiety and the family’s grief.

- Understand the indications for central line placement, choice of line site and type; demonstrate good technique in the insertion of a central venous catheter.

Medical Knowledge:
Residents are expected to acquire knowledge about various diseases as outlined below. Residents are expected to be knowledgeable about the screening guidelines for various malignancies, manifestation and treatments, and psychosocial needs of the patients. Knowledge of nutritional support is essential as the patients are frequently malnourished because of the disease process or social factors.

- Understand the pathophysiology, clinical manifestations, staging, natural history, and principles of management of the following hematologic malignancies and clonal disorders:
  - Hodgkin’s disease
  - Non-Hodgkin’s lymphoma
  - Acute non-lymphocytic leukemia
  - Chronic lymphocytic leukemia
  - Multiple myeloma
  - Myelodysplastic syndrome
  - Chronic myelogenous leukemia
  - Polycythemia vera

- Understand the pathophysiology, clinical manifestations, natural history, and principles of management of:
  - Anemias related to iron deficiency, nutritional deficiencies, hemolysis, hemoglobinopathies, and chronic disease
  - Bleeding disorders
  - Hypercoagulable states, including anticardiolipin antibody syndrome
  - Hyperviscosity syndrome
  - Disseminated intravascular coagulation
  - Thrombocytopenia
  - Thrombocytosis
  - Disorders of platelet function

- Understand the pharmacology, uses, and complications related to common chemotherapeutic agents.
• Develop evidence-based strategies for the evaluation and treatment of patients with neutropenic fever, and for prevention of infections in immuno-compromised patients.
• Develop evidence-based strategies for the evaluation, treatment, and prevention of tumor lysis syndrome.
• Recognize the indications for bone marrow biopsy and aspiration.
• Understand the principles of transfusion therapy, indications for transfusion of blood and blood products, and complications of transfusion.

**Practice Based Learning and Improvement:**
The residents are expected to be able to recommend appropriate investigations and incorporate the result in management, analyze their clinical experience to determine how the care of the patients with malignancies differs from other problems, and to develop strategies to continuously improve the quality of care.

**Interpersonal and Communications Skills:**
The residents should be able to anticipate and deal with the responses of patients to a diagnosis of malignancy—denial, anger, depression, and should be able to meet the difficult challenge using effective listening, non-verbal questioning, and narrative skills to communicate effectively with the patient and family. Discussions about end of life care require patience, compassion, and understanding needs of patient and caregiver. The resident is expected to be alert to the effects of stress on caregiver and make appropriate referrals. The residents will perform consultation service, under supervision of attending physician. Residents should be able to communicate effectively with the primary physician. Resident should be able to provide reference material in support of recommendations. Resident is expected to be a good team player.

**Professionalism:**
• Residents are expected to demonstrate respect, compassion, integrity and trustworthiness in relationship with patients. Resident should be sensitive to the needs for comfort, dignity and privacy. Use of alternative forms of treatments is common in patients. Confidentiality and a non-judgmental approach are expected. Recognize the common ethical issues that face patients, their families, and caregivers related to end-of-life care.

**System Based Practice:**
Patients frequently require referrals for tests such as CAT scan and for social services such as home care, visiting nurse, home parenteral nutrition. The resident is expected to be able to develop an understanding of both the opportunities and limitations of practice setting and be able to collaborate with other members of the health care team and be a facilitator for the patient.

**Responsibility according to level of training:**

**PGY 1:** Residents are responsible for:
- gathering relevant patient data
- performing and interpreting physical examination findings
- perform basic procedures and interpret data
- interpret laboratory tests
- interpret basic radiographic studies

**PGY-2** will have improved competence and demonstrate improved data gathering and physical examination skills:
- improved knowledge
- improved decision making
- enhanced ability to counseling

**PGY-3** will approach mastery and demonstrate the ability to function as consultant.

**Didactic experiences:**
The faculty in Hematology/Oncology participate in all of the educational activities in the department of medicine, such as Morning Report, Core conferences, and Grand Rounds. Residents also participate in the biweekly Breast Cancer conference, and Tumor board held monthly. Some of the topics covered in core conference series include:
1. Lymphoma/Leukemia.
2. Anemias
3. Solid tumors
4. Coagulation disorders
5. Pain management.

**Evaluation:**
Residents will be evaluated by the attending physician in all 6 Core Competencies in both written and verbally. Residents are expected to evaluate their own performance to assess if the learning objectives were met. This evaluation is the part of resident’s portfolio.

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Nephrology

Educational Purpose and Goals:
With increasing prevalence of elderly, obese and diabetic population, the prevalence of kidney diseases continues to increase. More than 10% of people, ages 20 years and older in the United States have kidney disease and it is the 9th leading cause of death. Understanding and managing the spectrum of renal diseases, fluid and electrolyte disorders and acid base disorders can be very complex. It is important as an internist whether hospitalist or primary care physician to have working knowledge of these illnesses in an inpatient and outpatient setting.

The goal is to ensure that internal medicine residents acquire knowledge, skills and attitudes necessary for management of patients with kidney diseases in both inpatient and outpatient settings through direct patient care under the supervision of attending nephrologists by rotating in Nephrology service.

Primary Teaching Methods and Settings:
The main method of teaching is experiential learning through supervised management of inpatients and outpatients. Residents perform evaluations under the supervision of nephrology attending. Patient centered, individual case based discussions will be done by the attending nephrologist. Residents interact with primary team and medical students and other staff involved in patient’s care as such interactions are part of educational experiences. Residents participate in family conferences and other interdisciplinary meetings along with the nephrologists regarding important decision making processes such as consenting or refusal of dialysis therapy, palliative care, withdrawal of dialysis support as part of educational experience.

Residents will take pre test prior to rotation in Nephrology and will take post test at the end of rotation. These questions will be reviewed and discussed with the residents as a group by the attending.

Small group learning sessions are done on a regular basis throughout the rotation. The residents are assigned topics to do presentations as part of teaching experience and the attending expands on the discussions.

Residents interested in scholarly activities such as clinical research, case report, etc are encouraged to participate under the guidance of nephrology attending.

The three major components of nephrology service are consultations, renal clinic and Hemodialysis Unit. Renal service receives consultations requests from medical inpatients units, patient followed in the outpatient medical clinics and non medical services. The residents play primary consultant role along with the attending. It is through the performance of the consultations that the residents will cover most of the learning objectives, especially acute kidney injury, different stages of chronic kidney disease including End Stage Renal Disease, fluid and electrolyte disorders, acid base disorders and renal emergencies. Hemodialysis unit gives the residents opportunity to learn about indications for hemodialysis, unique problems of patients with End Stage Renal Disease. In renal clinic residents will learn about evaluation and management of hypertension, proteinuria, hematuria, and chronic kidney disease (CKD) patients with emphasis on measures to delay CKD progression and management of CKD related complications.

Residents will be taught about comprehensive CKD care using mnemonic, “SHAPE UP”.

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<tr>
<th>Staging of CKD</th>
<th>Hypertension, Hyperglycemia, Hyperphosphatemia, Hyperparathyroidism, Hyperkalemia, Hypervolemia and Hyperlipidemia</th>
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<tr>
<td>Anemia evaluation and management</td>
<td>Proteinuria evaluation and management</td>
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<tr>
<td>Evaluation for Renal Replacement Therapy (RRT) including options of RRT</td>
<td>Undoing nephrotoxins Preservation of veins for future need of arterio-venous access</td>
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Learning Objectives in Nephrology

Presenting complaints
Residents are expected to be able to obtain thorough history including details of presenting complaints such as hematuria, oliguria, polyuria, hesitancy, chest pain due to uremic pericarditis, shortness of breath in the setting of renal failure, exposure to nephrotoxins including analgesic abuse, illicit drug use etc, family history and social history.

Physical examination skills
Residents are expected to be able to perform a thorough physical examination, including assessment of volume status, presence of pericardial rub, bladder distension, abdominal bruits and asterixis.

Differential diagnosis, evaluation and management of kidney diseases
Residents are expected to be able to evaluate renal function, differentiate acute from chronic kidney disease, pre renal and post renal azotemia, evaluation of hematuria, proteinuria, nephritic and nephrotic syndrome and recognize refractory and secondary hypertension by appropriate use and interpretation of specific tests and procedures. These tests include identification of cellular elements, casts, and crystals and their significance, interpretation of urine electrolytes, interpretation of arterial blood gases, serological tests for proteinuria, GFR status in CKD staging, appropriate tests based on CKD stage for potential CKD related complications, renal sonogram/CT scan, renal scan, indications and limitations for MRI/MRA and placement of femoral venous catheters for hemodialysis.

Competencies
Residents are expected to develop competencies that are particularly relevant to the care of patients with kidney diseases and that address all 6 elements of Internal Medicine Core Competencies.

Patient Care:
Residents are expected to be able to provide compassionate, appropriate, safe and effective care for treatment of diseases and preventive strategies for patients at risk for diseases or progression of disease by developing and implementing effective patient management plans and integration of patient care and to make informed recommendations to patients based on clinical judgment, scientific evidence and patient preference. Effective communication with patients, their family members, and various disciplines, patient/family education are critical components of patient care.

Medical Knowledge:
Residents are expected to learn the guidelines for chronic diseases such as CKD, HTN and DM that have been demonstrated to slow development and progression of renal dysfunction and implement them; recommend appropriate diagnostic work up when performing consultations, using evidence based approach, and acquire knowledge of drug metabolism in patients with kidney diseases and make appropriate adjustment of the dose. Residents are expected to do analytical thinking of clinical situation and implement appropriate measures to improve the patient outcome.

Practice Based Learning:
Residents are expected to be able to analyze and evaluate their practice experiences to improve patient care; learn from prior mistakes, performance improvement activities, apply knowledge from evidence based clinical practice guidelines and manage information.

Interpersonal and Communication Skills:
Pre ESRD patients suffer from denial because of asymptomatic nature of the disease and require counseling regarding preparation for maintenance dialysis and creation of an access. Patients with end stage renal disease frequently suffer from depression and may not comply with the dialysis treatments, dietary restriction and medication regimen. Residents are expected to learn effective listening and non verbal skills to communicate effectively with the patient, and improve their participation in disease management. Communication skill regarding patient preferences for renal replacement therapies and health care at end of life must be acquired. Residents are expected to communicate effectively with other health care professionals.
Professionalism
Residents are expected to demonstrate compassion, respect, integrity and trustworthiness in relationship with patients. They should be sensitive to issues like privacy, confidentiality, age, gender, patients’ culture and religious belief.

System Based Practice:
Patients with kidney problems may require referrals for creation of vascular access for hemodialysis, social services, dietary and rehabilitation. Resident is expected to develop an understanding of both the opportunities and limitations of the setting and to collaborate with other members of the team to assist patients in dealing effectively with the systems.

Responsibility according to level of training:
PGY 1: Residents are responsible gathering relevant patient data, performing and interpreting physical examination findings, perform basic procedures and interpret data, interpret laboratory tests, interpret basic radiographic studies
PGY-2 will have improved competence and demonstrate improved data gathering and physical examination skills, improved knowledge, improved decision making, enhanced ability to counseling
PGY-3 will approach mastery and demonstrate the ability to function as consultant

Didactic Experience
Faculty members from Nephrology participate in the formal education program including Grand Rounds, noon conferences, Board Review and Morbidity and Mortality Conferences. Topics covered include but not limited to:
1. Fluid and electrolyte disturbances.
2. Diagnosis and management of acid base disorders.
3. Nephrolithiasis
4. Chronic Kidney Disease, its associated complications and management.
5. Acute Kidney Failure, diagnosis and treatment modalities.
6. Hematuria
7. Proteinuria
8. Hypertension

Evaluation
Residents will be expected to evaluate their performance in management of patients with renal diseases. The supervising attending will evaluate the resident based on the above mentioned 6 core elements. The feedback of the evaluation will be discussed with the resident.

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Suggested reading
4. Choosing antihypertensive therapy in chronic kidney disease Patient Care June 2007 Vol 41, No 3, Pages 10-16
7. MKSAP
8. UpToDate medicine.
9. American Journal of Kidney Diseases
10. Clinical Journal of the American Society of Nephrology

Prepared by,
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Subspecialty Education Coordinator

Reviewed by:
Vihren Dimitrov, MD. Program Director

Reviewed and Updated July, 2011
INFECTIOUS DISEASES

Goals: The goal of curriculum in Infectious Disease is to ensure that residents acquire knowledge, skills and attitude necessary for prevention, screening and diagnosis and management of infections. Primary Teaching Methods and Settings Residents will spend majority of time evaluating new patients and doing follow up on inpatient consult service. The resident will work independently in the morning evaluating new patients including, review of the initial presentation and review of investigations performed. A differential diagnosis and management plan will be developed and literature searched related to problem. The resident will then present cases to the attending assigned to consultative service. The attending will examine the patient, verify the findings of resident and approve or modify the plan recommended by resident. The rounds with the attending are combined work and teaching rounds. The resident is encouraged to read material from textbooks, journals and selected articles.

Primary Educational Venues: 
Acute inpatient consultations – house officers will evaluate patients on whom infectious disease consultation has been requested. After evaluating the patient, the resident presents the patient to the consult team, and a plan is established.

Critical Care assessments – Patients with acute life threatening infections are admitted to the ICU with infectious disease consultation. In concert with the ICU and infectious disease consult teams, residents will help evaluate and manage these patients.

Infectious disease case conference and didactics – Infectious disease faculty and fellows participate in weekly didactics on relevant topics, and review complex cases as a section. Residents are expected to participate in these conferences during the elective.

Learning Objectives in Infectious Diseases

Physical examination skills
The physical examination skills expected include those necessary to approach patients with the presenting problems and diagnoses listed below. Particular emphasis is to be placed on the cutaneous, retinal and mucosal manifestations of infectious diseases.

Presenting complaints
The resident is expected to be able to appropriately evaluate presenting complaints such as fever, cough, rash, dysuria, neck stiffness.

Differential diagnosis, evaluation and management of infectious diseases

These include HIV/AIDS (indications for prophylaxis for opportunistic infections, when to initiate Highly Active antiretroviral Agents and major toxicities associated with them), meningitis, tuberculosis, community acquired pneumonia (causes, treatment guidelines), nosocomial infections, post operative and surgical infections, infections in neutropenic host, sexually transmitted diseases, how to choose empirical antibiotics, and mechanisms of resistance.

Use and interpretation of specific tests and procedures
Gram stain, PPD testing and interpretation, PPD testing and interpretation, India ink and cryptococcal antigen, PPD testing, interpretation of urinalysis, pleural fluid, ascetic fluid, blood cultures, cerebrospinal fluid, and MIC/MBC levels.

Competencies
Residents are expected to develop competencies that are particularly relevant to the care of patients with immunosuppression and infections and address elements of all 6 Internal Medicine Core Competencies. Specific examples are noted below:

Medical knowledge:
Residents are expected to learn about the clinical problems as outlined above, perform consultations, synthesize the data and make a differential diagnosis and recommendations based on evidence based medicine. Resident should be able to recommend appropriate work up, giving justification and avoid unnecessary investigations. As HIV is one of the leading diagnoses at this institution, the resident must be fully conversant in specific problems seen in this population. Residents are expected to understand the pathophysiology, clinical manifestations, natural history, and principles of management of the following infectious diseases:
- Understand the pathophysiology, clinical manifestations, natural history, and principles of management of the following infectious diseases:
  - Central nervous system infections (encephalitis, meningitis, brain abscess, epidural abscess)
  - Infectious endocarditis
  - Pneumonia (community acquired and nosocomial)
  - Empyema and lung abscess
  - Influenza
  - Tuberculosis
  - Gastroenteritis
  - Liver abscess
  - Cholangitis
  - Bacterial peritonitis
  - Infectious diarrhea
  - Clostridium difficile colitis
  - Cervicitis and pelvic inflammatory disease
  - Prostatitis and epididymitis
  - Urinary tract infections
  - Cellulitis
  - Skin and soft tissue abscesses
  - Varicella zoster
  - Osteomyelitis
  - Septic arthritis
  - HIV infection, including symptoms of primary infection
  - Lyme disease
  - Herpes simplex infections
  - Viral hepatitis
  - Infectious mononucleosis
  - Sepsis
  - Systemic fungal infections
  - Malaria

- Understand the epidemiology, clinical manifestations, natural history, and principles of management of the following complications of HIV infection:
  - Herpes zoster
  - Molluscum contagiosum
  - Kaposi’s sarcoma
  - Vaginal candidiasis
  - Cervical dysplasia and squamous cell carcinoma of the cervix
  - Myocarditis
  - Pericarditis
  - Lipodystrophy
  - Chronic diarrhea
  - Esophageal candidiasis
  - Wasting syndrome
  - Hepatitis
  - Cytomegalovirus infections
  - Mycobacterial infections
  - Pneumocystis carinii pneumonia
  - Syphilis
  - Cryptococcal meningitis
  - Toxoplasmosis
  - AIDS related Dementia
  - Ocular infections, including retinitis

- Interpret results of the following tests:
  - Routine gram stain and culture
  - Urinalysis and culture
  - Blood cultures
  - Cerebrospinal fluid analysis
  - Tuberculin skin test
  - Lyme serology
  - Serologic tests for viral hepatitis

Patient Care:
- Residents are expected to be able to gather data, synthesize the data, and make informed assessment and recommendations based on clinical judgment, scientific evidence and preference especially in patients with chronic diseases such as HIV infection. Residents are expected to
Perform an effective history and physical exam, direct the diagnostic evaluation, and manage the care of patients presenting with the following symptoms, signs, or clinical syndromes:

- Fever associated with:
  - headache or neck stiffness
  - cough
  - dyspnea
  - upper respiratory symptoms
  - urinary symptoms
  - diarrhea
  - abdominal pain
  - rash
  - myalgia
  - focal joint swelling and/or pain
  - pelvic pain
  - vaginal or urethral discharge
  - weight loss
- Fever of unknown origin
- Neutropenic fever
- Sepsis
- Positive tuberculin skin test
- Travel-related infection prevention issues
- Tick bite, with and without associated localizing or systemic symptoms

- Perform an effective history and physical exam, direct the diagnostic evaluation, and manage the care of patients with HIV infection with respect to the following issues:
  - Primary HIV infection
  - Staging of disease
  - Monitoring progression to AIDS
  - Diagnosis of AIDS-defining illnesses
  - Antibiotic prophylaxis of opportunistic infections
  - Antiretroviral drug therapy
  - Immunizations
  - Cervical cancer screening
  - Prevention of HIV transmission
  - Functional assessment
  - Nutritional assessment
  - Palliative and terminal care
  - Pregnancy counseling
  - Assessment of social support
  - Central nervous system mass lesions
  - Weight loss
  - Dementia

**Practice based learning and improvement:**
Residents are expected to analyze and evaluate their experience in management of patients with infections, to determine how care of patients with immune suppression differs from other patients, identify areas for improvement, understand reasons for investigations and apply the results in patient care.

**Interpersonal and communications skills:**
Conditions such as depression may be encountered more frequently in patients with chronic disease such as HIV and pose challenge to doctor patient relationship and patient compliance with drug regimen. This challenge must be met by effective listening, and narrative skills to develop a rapport with patients. As most of the resident’s time is spent in performing consultations, resident is expected to be able to communicate well in writing the consultation. During this rotation the resident deals with not only other members in medicine but also on non medical services. The resident is expected to be a good team player in management of patients.

**Professionalism:**
Residents are expected to demonstrate compassion, respect, integrity in dealing with patients and next of kin.
Confidentiality must be maintained especially with regard to diagnosis of HIV infection. Patient needs for dignity, privacy and comfort must be honored.

**System based practice:**
Residents are expected to develop an understanding of the opportunities available for patients such as social services and be able to collaborate with members of the team to assist patients in dealing effectively with the system and assist patients in obtaining special services and financial assistance.

**Responsibility according to level of training:**

**PGY 1:** Residents are responsible
- gathering relevant patient data
- performing and interpreting physical examination findings
- perform basic procedures and interpret data
- interpret laboratory tests
- interpret basic radiographic studies

**PGY-2** will have improved competence and demonstrate
- improved data gathering and physical examination skills
- improved knowledge
- improved decision making
- enhanced ability to counseling

**PGY-3** will approach mastery and demonstrate the ability to function as consultant

**Didactic experience**

Residents are expected to attend the core conferences and Grand Rounds during the rotation. In addition, specific topics will be covered by the ID attendings during the month. Some of topics covered during core conference series include:

1. Principles in selection of antibiotics
2. Management of patients with HIV infection
3. Pneumonia

**Suggested reading**
Harrison Textbook of medicine.
UpToDate
Access Medicine
Guidelines for management of community acquired and nosocomial pneumonia.
Preventive guidelines for HIV patients.
Mandell’s Textbook of Infectious Diseases

**Evaluation**
Residents will be expected to evaluate the experience to assess if the learning objectives have been met. The attending will evaluate the in all of the 6 competencies as outlined above. Both written and verbal evaluation will be done.

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**Prepared by:**
Michael Skelly, MD.
Subspecialty Education Coordinator

**Reviewed by:**
Vihren Dimitrov, MD. Program Director

Reviewed and Updated July, 2011
**NEUROLOGY**

**Goals:** The goal of curriculum in Neurology is to ensure that residents develop competency in evaluation of neurological symptoms, signs and conditions as encountered by a practitioner of internal medicine. After completing the training, residents must be able to work in managed care environment to evaluate neurological symptoms, make use of technologies and know when to make referrals to a neurologist.

**Primary Teaching Methods and Setting**
Patient care is taught in Neurology clinic and consultation service when on Neurology elective and during assignment on inpatient units (regular and special care). In the clinic, residents see patients individually in a comfortable, private and well equipped room. They obtain history and physical examination, review medical records and laboratory data, formulate a differential diagnosis and management plan, and then present the case to the attending physician. The attending critiques the presentation, examines the patient and provides in depth teaching on the neurologic issue including pathophysiology of the disease. When on consultation service, the resident evaluates the patient similarly and presents all the cases to the attending. As in the clinic setting, the attending critiques presentation, examines patient, reviews CT imaging of brain on the PACS radiology system, and provides teaching.

**Learning Objectives in Neurology**

**Physical examination skills**
The residents are expected to be able to perform a detailed neurological examination including fundus exam.

**Presenting complaints**
Residents should be able to evaluate presenting complaints suggestive of nervous system disease, such as weakness, cognitive disturbances, imbalance, vertigo, neuropathic pain, tremors and headache.

**Differential Diagnosis, evaluation and management of diseases of nervous system**
These include cerebrovascular accidents, seizure disorder, CNS complications of HIV infection, critical illness polyneuropathy, parkinsonism, metabolic encephalopathies, persistent vegetative state, and brain death evaluation.

**Use and interpretation of specific tests and procedures**
Residents are expected to be able to perform safely lumbar puncture and interpret the findings. Tests for brain death are performed by attending in the presence of residents. They are expected to acquire knowledge of criteria for brain death. Similarly, residents review CT scans with the attending and develop an understanding of appearance of hemorrhage, infarct, obstructive hydrocephalous, brain atrophy etc.

**Competencies**
Residents are expected to develop competencies that are relevant to the care of patients with diseases of nervous system and that address all 6 internal medicine core competencies. Specific examples are listed below:

**Patient care**
Residents are expected to be able to provide effective, efficient, and safe care, based on clinical judgment, scientific evidence and patient preference. End of life issues such as advance directives, pain management, and use of life prolonging measures must be discussed with the patient/family. For optimal care, these discussions should preferably start when the patient is still capable of participating in decision making.

**Medical Knowledge**
Residents are expected to be knowledgeable about the medical problems listed above. Knowledge of guidelines for prevention of disabling diseases such as stroke is essential for management.

**Practice based learning and improvement**
Residents are expected to analyze their performance with regard to eliciting pertinent history and physical findings, utilization of technologies and ability to synthesize the data and make a differential diagnosis and management plan continuously. Based on this analysis, they are expected to develop strategies to improve quality of care.

**Interpersonal and communication skills**
It may at times be difficult to communicate with a patient with neurological problem because of aphasia or depression associated with some problems. For optimal care to occur, the resident must employ observational skills in addition to questioning and listening, to communicate effectively with the patient. When performing neurology consults on the medical units or on other services, the resident must be able to communicate effectively with the primary team, the possible diagnosis and recommendations. The written consult must be legible, clearly thought, and use evidence based approach. Whenever possible, it is desirable to include references for the recommendation being made for educational purpose. Discussion of patient preferences and end of life issues requires an ability to convey to the patient clearly the diagnosis and prognosis. Residents are expected acquire these essential skills and be able to communicate without discomfort by observing the senior residents or attending physicians in patient/family conferences. Role playing with other residents is a useful method of learning the skill.

**Professionalism**
Residents are expected to demonstrate compassion and sensitivity when dealing with the patients. Attention must be paid to patient privacy and confidentiality.

**System based practice**
Residents care for patients with neurological problems in different settings such as inpatient unit, neurology and continuity clinics. Patients frequently require referrals for tests such as CT scan, MRI, EEG, and for social and rehabilitation services. Residents must have an understanding of both the opportunities and limitations of the setting and be able to collaborate with other team member to assist patient in dealing with the system and provide comprehensive and compassionate care.

**Didactic experience**
Faculty in the division of Neurology participates in all of the educational activities offered in the program such as Morning Report, core conferences and Grand Rounds. Attendance is mandatory. Some of the topics covered at these sessions include:
1. Stroke.
2. Seizure disorders
3. Peripheral neuropathy

**Suggested reading**
Clinical Neurology by Aminoff et al (by Appleton and Lange).

**Evaluation**
Residents will be evaluated by the attending physician both in writing and verbal feedback will be given during rotation. In addition, residents will perform a clinical evaluation exercise in presence of attending physician to ensure that the physical examination skills have been mastered. The residents are also expected to evaluate their own performance, at the end of the neurology elective and at periodic intervals. This evaluation will be part of the portfolio and will be reviewed by the program director at the bi- annual meetings.

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**Prepared by**
J. Zisfein, MD., Chief Division of Neurology

**Reviewed by:**
Vihren Dimitrov, MD. Program Director
RHEUMATOLOGY

Goals: The goal of curriculum in Rheumatology is to ensure that the residents develop competencies in the evaluation of musculoskeletal symptoms, signs and conditions that a general internist is likely to encounter in practice, and be able to perform appropriate investigations and make a referral to a rheumatologist.

Primary Teaching Methods and Settings
Residents are taught rheumatology during Rheumatology elective in the clinic as well as on inpatient unit when consulting on patients. In addition, residents learn to manage patients while on ward, ICU or ED assignment. In both the clinic and inpatient unit, the resident performs initial evaluation with history, physical examination, reviews laboratory investigations and formulates a diagnosis and management plan. The case is then presented to the attending physician, who critiques the presentation, performs physical exam with the resident, discusses the pathophysiology and management, and provide education. The resident is taught how to order and interpret pertinent laboratory investigations and perform diagnostic procedures. In addition, senior (PGY2 and PGY3) residents are instructed in the appropriate evaluation of a patient scheduled for a Biologic Response Modifier (BRM) in the outpatient clinic, or, for insufible BRMs, at the Hospital Outpatient Infusion Center (9A).

Learning Objectives in Rheumatology

Physical examination skills
The resident is expected to be able to perform a detailed exam with attention to musculoskeletal system, including: gait, posture, deformities of joints, range of motion, examination of spine, sciatic nerve stretching test, sacroiliac and hip joints, motor function of extremities.

Differential diagnosis, evaluation and management of musculoskeletal diseases
These include, rheumatoid arthritis, SLE, seronegative spondyloarthritides, crystal induced arthritis, osteoarthritis, vasculitides, osteoporosis, temporal arteritis.

Use and interpretation of specific tests and procedures
Residents are expected to be able to perform aspiration of knee joints and interpret the synovial fluid, review radiographs of joints, interpret rheumatoid factor, ANA, anti-DNA, anti-CCP, antiphospholipid antibodies, cryoglobulin, etc.

Competencies
Residents are expected to develop competencies that are relevant to the care of patients with musculoskeletal problems and that address all 6 internal medicine Core Competencies.

Specific examples are listed below:

Patient care
Residents are expected to provide care that is compassionate, effective and safe, based on clinical judgment and scientific evidence. After completion of their training, most of the residents will work in a managed care environment, in which the internist is expected to do initial evaluation, order and interpret investigations, before referring patient to a specialist. It is imperative that the residents acquire enough clinical judgment, in order to practice as an internist.

Medical Knowledge
Residents are expected to be knowledgeable about the diseases listed above. Though residents receive a lot of instructions in rheumatology in various settings, they are expected to read independently and remain up to date with the current literature pertinent to patients' problems.

Practice based learning and improvement
Residents are expected to identify areas for improvement and implement appropriate strategies. They should be able to evaluate patient care practices and to improve based on scientific evidence.

Interpersonal and communication skills
Residents are expected to be able to communicate effectively with the patient and other members of the team. It is not uncommon for patients with joint diseases to use alternative forms of treatment such as acupuncture and herbs. As there may be an interaction between herbal treatments and prescribed medications, it is essential that the resident elicits the history from patient. This can be accomplished only by developing a rapport with the patient and by being sensitive about diversity of patients. While performing a consultation, residents are expected to be able to write clearly, a focused consultation with the pertinent data, assessment and recommendations regarding investigations and management plan. Residents are expected to be a team member and work effectively with the nurses, social workers and other personnel.

Professionalism
Residents are expected to demonstrate compassion, respect, sensitivity and integrity when dealing with the patients. A respect for patients' beliefs, cultural diversity and preferences is required for effective patient management.

System based practice
The residents are expected to be able to apply cost effective strategies to prevention, diagnosis and treatment of conditions without compromising quality of care. Patient with chronic rheumatologic problems frequently require referrals to rehabilitation, social services and visiting nurse. The residents are expected to have an understanding of opportunities and limitations of the practice setting and negotiate the system, to ensure optimal patient care.

Procedures
Residents are instructed and directly supervised in the following procedures:
  - arthrocentesis
  - intra-articular corticosteroid injection
  - tendon sheath injection

Responsibility according to level of training:
PGY 1: Residents are responsible for gathering relevant patient data; performing and interpreting physical examination findings; perform basic procedures and interpret data; interpret laboratory tests; interpret basic radiographic studies
PGY-2 will have improved competence and demonstrate improved data gathering and physical examination skills
PGY-3 will approach mastery and demonstrate the ability to function as consultant

Didactic experience
The faculty in the Division of Rheumatology participates in various educational activities offered in the department of medicine, such as Morning Report, core conferences and Grand Rounds. Some of the topics covered include:
  1. Systemic lupus erythematosus
  2. Scleroderma
  3. Seronegative spondyloarthritides
  4. Osteoarthritis and low back-pain
  5. Rheumatoid arthritis
  6. Adult onset Still's Disease and other auto-inflammatory disorders
  7. Treatment of musculoskeletal pain
  8. Vasculitides

Suggested reading
1. Primer in Rheumatology
2. Articles from Syllabus
3. Handout prepared by Dr Efthimiou and given at the beginning of the rotation

Evaluation

Reviewed and Updated July, 2011
Residents are evaluated by the attending physician and a verbal feedback given in the middle of rotation. A written evaluation is done at the end of the rotation. Residents are expected to evaluate their own performance in rheumatology at the end of the elective and at periodic intervals. In addition, a pre-test is administered at the beginning of the elective to assess individual strengths and weaknesses and a post-test is taken by all residents to assess improvement. Residents are encouraged to give a brief presentation on a rheumatological topic in front of the group, in order to stimulate discussion and learning.

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Prepared by:
Petros Efthimiou, MD, FACR., Chief Division of Rheumatology Subspecialty Education Coordinator

Reviewed by:
Vihren Dimitrov, MD. Program Director
CONSULTATIVE MEDICINE

Goals and Objectives:
To develop the skills necessary for the assessment and medical management of perioperative patients and the management of complex medical problems in patients hospitalized on non-medical services.

Summary of Rotation:
The Medical Consult rotation is a 4 week rotation. Consultations are requested by physicians on surgical, OB-GYN, and psychiatry services, for preoperative optimization, determination of risk for surgery, and management of patients’ medical conditions. The resident obtains a history, performs physical examination, reviews the data and formulates an assessment, including risk to patient from the planned procedure and anesthesia. He/she then presents the case to the attending, who verifies resident’s findings, reviews the note and amends as appropriate. The attending provides teaching during this process. In the outpatient clinic sessions dedicated to referrals for preoperative clearances similar process takes place. Didactic conferences are conducted by the attending during the elective and as part of the core curriculum. The resident is encouraged to read material from textbooks, journals and syllabus on topics related to the patient problems. Hand outs are provided as well.

Primary Educational Venues:
Consult attending teaching rounds – daily rounds with the consult attending, including:
- Discussion and examination of new consult patients
- Clinical updates, re-evaluation, and review of new test results on continuing consults
- Bedside review of pertinent physical findings
- Staff review of resident documentation
- Review of core topics in consultative medicine and in-depth teaching on problems seen by the consult team.

Department of Medicine conferences – the resident is expected to attend morning report 4 days per week and to attend, noon conference, journal club, M&M and grand rounds.

Educational Resources:
UpToDate topics in consultative medicine (available online throughout the institution)
Access Medicine
Ovid (available online throughout the institution).
Medical Library – Available on site, all major journals and textbooks are available.

Rotation Specific Educational Goals by Competency and PGY Level

Medical Knowledge:
By completion of PGY-3:
- Understand the principles of peri-operative evaluation and risk reduction in the healthy patient, and in patients with medical problems.
- Understand the physiologic response to surgery and anesthesia.
- Learn evidence-based methods of predicting and reducing peri-operative risk from:
  - Cardiac ischemia
  - Pulmonary disease
  - Renal insufficiency (acute or chronic)
  - Congestive heart failure
  - Valvular heart disease
  - Chronic liver disease
  - Hypertension
  - Diabetes
  - Thyroid disease
  - Bleeding disorders
  - Clotting disorders (including prophylaxis of thromboembolism)
  - Obesity
  - Substance abuse
  - Stroke
  - Peri-operative infection
  - Peri-operative nutritional compromise
- Learn the causes, diagnosis, and treatment of surgical complications, including:
  - Acute renal failure
  - Cardiac arrhythmias
  - Cardiac ischemia
  - COPD/asthma exacerbation
  - Congestive heart failure
  - Delirium
  - Drug reactions and interactions
  - Electrolyte and acid-base disturbances
  - Fever
  - Gastrointestinal bleeding
  - Hematologic disorders
  - Liver dysfunction
  - Peri-operative infections
  - Respiratory failure
  - Thromboembolic disease
- Understand the physiology, diagnosis, and management of medical complications of pregnancy, including:
  - Hypertensive disorders
  - Liver dysfunction
  - Thyroid disorders
  - Gestational diabetes
  - Thromboembolic disease
  - Infectious diseases

- Recurrent spontaneous abortion
- Nutritional compromise
- Substance abuse
- Understand the consequences and management of chronic medical problems in the pregnant patient, including:
  - Hypertension
  - Diabetes
  - Hypothyroidism
  - Asthma
  - Valvular heart disease
  - Depression
  - HIV
- Understand the basic categories and pharmacologic management of major psychiatric diseases.

Patient Care:
By completion of PGY-3:
- Obtain all necessary information for effective peri-operative evaluation through history, physical exam, chart review, and discussion with the requesting service and patient’s primary care physician.
- Direct the pre-operative evaluation of healthy patients, and of patients with one or more acute or chronic medical problems.
- Assess the need for peri-operative prophylaxis of infection and thromboembolism.
- Manage chronic medications in the peri-operative period, including corticosteroids and anti-coagulation.
- Manage chronic medical problems in the peri-operative period, including:
  - Diabetes
  - COPD and asthma
  - Hypertension
  - Liver disease
  - Renal insufficiency
  - CHF
  - Valvular heart disease
- Evaluate and manage patients with post-operative problems, including:
  - Anemia
  - Chest pain
  - Delirium/mental status changes
  - Dyspnea/hypoxia
  - Fever
  - Hypotension
  - Hypertension
  - Reduced urine output
- Interpret and respond to pre-operative laboratory and EKG abnormalities.
- Interpret and respond to post-operative laboratory and EKG abnormalities.
• Interpret the results of non-invasive tests of cardiac risk.
• Interpret the results of tests for venous thromboembolic disease.
• Assess the need for transfer to a medical service, including critical care monitoring.
• Evaluate frail elderly patients with hip fracture and triage for admission to the medical service or admission to orthopedics with ongoing medical consultation.
• Obtain an accurate and complete medical history regarding a problem arising in or coincident with pregnancy, through patient interview, chart review and discussion with the patient’s obstetrician and/or primary care provider.
• Evaluate and manage a pregnant patient with:
  - Elevated blood pressure
  - Hyperglycemia
  - Liver function test abnormalities
  - Electrolyte abnormalities
  - Dyspnea
  - Fever
  - Depression
• Evaluate and manage acute and chronic medical problems in psychiatric patients.

Practice-Based Learning and Improvement:
By completion of PGY-3:
• Identify and acknowledge gaps in personal knowledge and skills in the care of patients with medical illness on non-medical services and patients being assessed for pre-operative medical risk.
• Review the relevant literature provided in the consult service notebook and discuss it with the teaching attending.
• Perform electronic searches of the medical literature to identify articles that address the consultative problems of patients evaluated on the service.
• Attend the department’s required teaching conferences.
• Develop time management skills to perform required tasks in a reasonable amount of time with satisfactory quality.

Interpersonal Skills and Communication:
By completion of PGY-3:
• Demonstrate patient-centered interviewing techniques: a compassionate approach to history taking; the ability to modify interview techniques in response to the patient’s demeanor, cultural and/or religious background, and level of competency.
• Respond promptly and courteously to requests for assistance with management of patients with medical problems on non-medical services.
• Communicate sensitively and effectively with patients with medical illness on non-medical services and patients being assessed for pre-operative medical risk and with their families.
• Communicate sensitively and effectively with patients who have experienced an unanticipated complication of surgery and with their families.
• Communicate sensitively and effectively with women experiencing a medical complication of pregnancy and with their families.
• Communicate sensitively and effectively with patients with psychiatric illness and their families.
• Effectively communicate with the resident and/or attending on the service requesting consultation in order to clearly understand and define the consultative question(s).
• Make clear, concise, and prompt verbal recommendations to the resident and/or attending physician requesting consultation, and assess whether all questions have been satisfactorily answered.
• Write a complete, concise consultative note with clearly outlined recommendations.
• Communicate effectively with nursing staff, discharge planners, and other members of the health care team, including other consulting services, regarding the plans for management of medical problems.
• Communicate effectively to the primary team regarding the intent to sign off on further care of a patient.

Professionalism:
By completion of PGY-3:
• Adhere to the DHMC Code of Professional Conduct
• Demonstrate honesty and integrity at all times.
• Behave with high regard and respect for patients, colleagues, and all members of the health care team.
• Appreciate and respect the differences in skills and abilities of clinicians in disciplines outside of internal medicine.
• Demonstrate a commitment to the patient’s best interest in making decisions regarding admission or transfer to the medical service.
• Be conscious in the follow-up of tests recommended or ordered for patients seen on the consult service.
• Appreciate the effects of individual values, cultural influences, and religious background on the patient’s approach to interventions recommended in the peri-operative period.
• Recognize the impact on patients and their families of unanticipated serious medical complications of surgery.
• Recognize the impact on pregnant women and their families of chronic medical illness complicating surgery.
• Recognize the impact on pregnant women and their families of unanticipated medical complications of pregnancy.
• Appreciate the ethical complexities involved in treating pregnant women with medical problems.

• Appreciate complex issues of confidentiality related to the care of patients on the psychiatry service.
• Recognize the potential problems that may impact the treatment of chronic medical illness in patients with serious psychiatric disease, including economic issues and compliance with recommended treatment.

Systems-Based Practice:
By completion of PGY-3:
• Work with the service requesting consultation to ensure that care for the patient’s medical problem(s) is properly coordinated with care being delivered by the primary service.
• Assist with the scheduling and follow-up of any tests or treatments necessary to assure the patient’s proper medical care, including tests that may not occur until after hospital discharge.
• Recognize when a patient’s interests would be best served by transfer to the medical service, and make arrangements to assure safe and efficient transfer.
• Recognize when a patient’s medical problems are stable and no longer require ongoing care from the medical consult service.
• Work with non-physician health care professionals in coordinating ongoing management of medical problems in patients hospitalized on non-medical services.
• Use evidence-based, cost-conscious strategies in the care of patients with medical illness on non-medical services and patients being assessed for pre-operative medical risk.

Evaluation
Residents will be evaluated by the attending physician in all 6 Core Competencies in both writing and verbally. Residents are expected to evaluate their own performance to assess if the learning objectives were met. This evaluation is the part of resident’s portfolio.

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<td>Peer evaluation</td>
<td>Assessment Multisource feedback</td>
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Prepared by:
Bansidhar Chauhan MD., Chief, Consultative Medicine

Reviewed by:
Vihren Dimitrov, MD. Program Director
NIGHT FLOAT/UNIT FLOAT

Goals and Objectives:

- To understand the clinical manifestations, pertinent data collection, and management issues that arise when covering for patients that are primarily managed by one’s colleagues.
- To understand issues in medicine relevant to communication, cross-coverage, and triage.

Summary of Rotation:

Night Float/Unit Float (NF/UF) is a 2 week rotation involving shifts of nighttime coverage of the inpatient wards. The teams are responsible for obtaining sign out from the day teams on the floor and the intensive care units, responding to pages from nursing and other staff about these patients, and delivering acute care as needed for the duration of the shift.

There are four interns and two PGY-2s assigned to the NF and 2 interns, one PGY-1 and one PGY-3 for the UF. The NF teams have six shifts per week, the NF team has five. The NF team is supervised by the hospitalist on call, the UF by the Intensivist on call.

Primary Educational Venues:

Acute inpatient assessments – On an as-needed basis, the nursing staff, respiratory therapists, etc. will contact the intern regarding management issues that arise on inpatients.

The NF and UF teams admit patients as per the program policies.

The PGY-2s assigned to the NF present patients during Morning reports on Monday and Tuesday, the UF team present on Wednesday. NF and UF residents are expected to attend the Grand Rounds.

Educational Resources:

- UpToDate and Access Medicine are available online throughout the institution.
- Ovid is available throughout the institution.
- Medical Library is accessible at night through the Administrator on call.

Principle Educational Goals by Competency and PGY level:

The educational goals are similar to the ones for Inpatient Medicine and MICU. The NF and UF teams do not have continuity clinic obligations during the rotations.

Evaluation:

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<td>Procedure supervision</td>
<td>Direct observation</td>
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<td>ICS, PC</td>
<td>All</td>
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Prepared by
Jean Daniel, MD, Associate Program Director

Reviewed by:
Vihren Dimitrov, MD. Program Director
**EMERGENCY MEDICINE**

**Goals:** The goal of curriculum in Emergency Medicine is to ensure that residents learn fundamentals of initial assessment and management of patients presenting to the Emergency Department at Lincoln Medical Center.

**Primary Teaching Method and Setting**
Residents are assigned to Emergency Medicine for a 4 week rotation at a time. Most of the patients at LMMHC arrive through the ED, accounting for 160000 visits annually and around 12000 admissions to the inpatient medical service. When assigned to the ED, medical residents work under the supervision of an ED trained attending physician. The resident assesses the patient, and based on clinical examination formulates a possible diagnosis and orders blood tests and radiographic studies. Case is then presented to the attending physician who has the final authority regarding disposition. Attending verifies the findings on clinical examination and provides teaching to the resident. A decision to admit or discharge is made. Residents work 12-14 twelve hour shifts per month.

**Learning Objectives in Emergency Medicine**

**Physical examination skills**
Residents are expected to be able to perform a focused medical exam when dealing with acutely ill patients in the ED, in order to initiate a treatment plan.

**Presenting complaints**
One of the most common reasons for presentation to the ED is exacerbation of asthma or shortness of breath. Other complaints that bring them to ED are chest pain, fever, shortness of breath. The resident is expected to be able to evaluate patients with these symptoms efficiently and effectively. Residents also gain experience in evaluation and management of patients with drug overdose and shock states.

**Differential diagnosis, evaluation and management of diseases**
Resident is expected to be able to evaluate patients with the top 10 diagnoses at LMMHC. These include asthma, diabetes, HTN, CAD etc.

**Use and interpretation of specific tests and procedures**
Most of the patients, who are admitted through ED, require some initial blood work to assist in evaluation and triage. Residents are expected to be able to order appropriate and necessary tests, and make an interpretation. Some of these tests are chemistries for evaluation of renal status and electrolyte imbalance, CBC in patients suspected of having an infection or GI bleeding and arterial blood gas for evaluation of oxygenation and ventilation. Residents must be able to diagnose life threatening conditions and take immediate action. These are severe hyperkalemia, and hypoxemic and hypercarbic respiratory failure. In the hectic environment of our busy inner city ED, it is imperative that the residents acquire skills to quickly analyze the history, physical exam and laboratory data to arrive at a diagnosis and be able to implement a management plan. Residents will get an opportunity to participate in cardiopulmonary resuscitation and may be able perform endotracheal intubation under supervision of an ED attending. While it is important that the residents gain experience in life saving procedures, the time spent in ED may not be sufficient to achieve competence.

**Competencies**
During this rotation the PGY-1 resident will:

**Patient Care**
1. Initiate management for patients not requiring hospitalization including gatekeeper functions to other clinics, preventive medicine with an emphasis on patient education, cost containment and relevant psychosocial issues for patient care in this setting.
2. Achieve competence in procedures including participating and directing ACLS protocols, paracenteses, thoracenteses, arthrocenteses, lumbar punctures, arterial blood gases, central venous access and when applicable, minor surgical procedures.
3. Improve independence in evaluation and management of a wide range of medical conditions.

**Medical Knowledge**
1. Recognize medical conditions requiring acute intervention and hospitalization.

**Interpersonal and Communication Skills**
1. Enhance leadership, interpersonal and teaching skills.

**Systems-Based Practice**
1. Identify, utilize and coordinate additional resources both within and outside the institution as necessary in order to plan a safe discharge from an ER setting.

**Didactic experience**
Faculty from ED participates in Core conferences. Some of the topics covered at these conferences are:
1. Management of drug overdose.
2. Stress management.

**Evaluation**
Residents will be evaluated by the ED attending physician at the end of the rotation. Residents will be expected to complete a self evaluation and evaluation of the ED experience.

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**Prepared by**
Elaine Josephson, MD., Program Director, Emergency Department.

**Reviewed by:**
Vihren Dimitrov, MD. Program Director
RESEARCH ROTATION AND EVIDENCE-BASED MEDICINE

Goals: The goals of the curriculum in Evidence Based Medicine and Research elective is to ensure that All Internal Medicine residents are able to:
- Ascertain limitations in their critical appraisal of literature and means to address those deficiencies.
- Understand the limitations and advantages of original peer-reviewed medical literature.
- Discuss and understand sensitivity, specificity and predictive values of diagnostic tests, how they are used, and how tests are selected and interpreted; understand the impact of the underlying prevalence of disease on the predictive values (and the interpretation) of a diagnostic test.
- Understand the meaning of statistical significance and differentiate it from clinical significance.
- To know the ways to evaluate risk and prognosis, including the differences between observational study designs such as cross-sectional, case-control, and cohort studies.
- Understand the anatomy of the randomized control trial, its strengths and weaknesses; discuss the importance of power and the number-needed-to-treat in the interpretation of a treatment.
- Comprehend if a treatment actually works or not based on the medical literature;
- Adapted and modified for our residents from Ref: http://www.medinfo.ufl.edu/year2/ebm/competencies.htm

Evidence-based medicine curriculum
Evidenced based medicine topics are covered during the Internal Medicine Training Program in the Lectures, during the resident’s journal club, and have been integrated as a part of faculty rounds and morning report.

I. Curriculum
Lectures (annual noon-conferences)
- Critically appraise articles on Therapy, Diagnosis, Causation, Prognosis
- Critically appraise Review articles
- Biostatistics for the internist.
- Health maintenance and screening
- Searching Medline and databases
- Medical Decision-making

Clinical Research Project
All residents are required by the program to develop a research project, design the methods, perform assisted analysis and submit it in a meeting or peer-reviewed journal. Acceptance of the project for awards or publications is not required. Examples of research projects include and are not limited to: a) Case reports b) review article c) Letter to the editor in a peer-reviewed journal d) Brief reports e) Clinical studies.

Resident Journal Club
The Chief Resident and representatives from the Faculty will conduct and mentor sessions on how to critically read the medical literature and how to conduct evidence based medicine searches. Key articles in internal medicine will be reviewed and critiqued.

Clinical Experience
Attending rounds
Evidence-based approach to problem solving is emphasized on daily patient care rounds conducted by attending physicians. Residents are encouraged to formulate questions, search medical literature and apply evidenced based solutions to clinical decision making in routine patient care under the guidance of the faculty.

Morning Report
As questions arise during morning report, the Chief Medical Resident is asked to obtain the best evidence available on the topic and return to morning report with the answer. The ACMR is mentored in this by faculty and the program director. The range of topics is broad and includes: assessing the impact of a diagnostic test on patient’s post test probability of disease, determining the sensitivity and specificity of test characteristics, determining the best diagnostic test for certain situations, reviewing the literature for current practice guidelines, reviewing the literature for assessing the best treatment options, and assessing the literature to determine patient prognosis.

Resources
Medical Libraries
Residents have access to a number of articles in our library. For those few journals not available from those sources, inter-library loan is available. Complete medical literature is available locally from the National Library of Medicine. The medical library has full-time librarians available to assist residents in conducting searches of a number of resources including MEDLINE, PSYCH-LIT, CANCER-LIT and so forth.

Computer Resources
All residents have access to medical literature 24 hours a day. Computers are available with unlimited access to Internet, medical databases and word processor programs. The conference room provides equipment for PowerPoint presentations.

Research Rotation
Instructors: Anita Soni MD, V Dimitrov, B Kanna MD & Key Faculty

Makeup of team (responsibility of each team member): The Instructors will schedule a counseling session with each interested resident in the beginning of the rotation to discuss the goals and objectives. A customized research plan for each interested resident will be developed. This will include the following:
- Introduction and explanation of the background for the research
- Degree of participation by the resident in the design of the study
- Background, experience, and degree of participation of the Resident and the Research Mentor
- Research hypothesis
- Specific methods
- Daily schedule of activity for the Resident during the elective period

Assignments & Presentations
Days per week: The research elective is scheduled for a period of 2 weeks during their training. Participation in the elective will require a minimum of 30 hours per week performing research during the elective period. Residents must also attend conferences, morning reports and scheduled participation in hospital wide and departmental committees. Residents will be required to meet with the assigned instructor or research mentor at a specific place and time arranged by them. In addition, the resident will be expected to participate in daily conferences and didactic departmental educational activities.

Assignments & Presentations: The residents are required to prepare the following assignments & presentation during their research elective.

- Evidence based Medicine topic – Residents learn to prepare a specific Internal Medicine topic by identifying a question, searching medical literature, compiling relevant data and presenting the findings in a written format to the Instructors. The resident will also be required to present this topic in an assigned noon conference lecture session at the end of the rotation.
- Original Contribution – residents are required to initiate and formulate a research project under the guidance of the Instructor or assigned mentor. The research projects may for example a case series, clinical trial or retrospective study etc.
- Participate in Departmental Projects and Meetings - Residents will be assigned to a specific on-going research project or Performance improvement project to assist the investigators collection and compilation of data.
- Critical Appraisal of literature - Residents will be required to critically appraise one major contemporary study and prepare a brief critique of the article and provide recommendations for the utilizing the findings in the study for our clinical practice.
- Review required reading material on basic statistical concepts – A brief multiple choice questionnaire will be administered to each resident at the end of the rotation to test the knowledge skills acquired through this reading.

Educational goals/competencies:
Patient: NA

Medical Knowledge: The discipline and evaluative skills gained by personal involvement in research form the basis for the implementation of new ideas and techniques in medicine. Perhaps more than any other profession, physicians must adopt the principle of life-long learning. Only by continued dedication to the critical evaluation and adoption of new information will physicians be able to remain current as practitioners of state-of-the-art medical therapy. Specific skills such as information retrieval techniques, critical analysis, and data interpretation are therefore essential tools for life-long learning.

Practice-Based Learning and Improvement: Residents will choose clinical research projects specific to our practice will learn how to perform and apply the knowledge in the care of patients.

Interpersonal and Communication Skills: Residents during the research elective must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with laboratory personnel, other departmental researchers and other professional associates.

Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities in the laboratory and adherence to ethical scientific principles. Residents should be on time, take their lab responsibilities seriously, report to their research mentor when they will be on call or in clinic, and display an active interest in learning about research techniques.

Systems-Based Practice: Residents will learn how to interact with the Institutional Review Board, will learn about the numerous rules and regulations that effect both human and basic science research, and will gain insight into the peer review process.

Text/references to be consulted: A compendium of selected articles will be provided as required reading by the Instructor. The JAMA series on evaluation of medical literature is the recommended reading for the course.

Methods of evaluation: Trainees will be evaluated by the Instructor during the rotation. Verbal feedback will be given throughout the month and an ABIM Competency-Based Resident Evaluation form will be completed at the end of the month. The evaluation of "research competence" of the resident will be based on his/her work ethic, initiative, responsibility and independence in carrying out the research work in the laboratory. Residents will be given feedback about their performance at the end of the rotation. Faculty is encouraged to discuss resident performance at some point in the middle of the rotation as well. Residents having difficulties with the rotation may require more frequent feedback sessions.

Residents, in turn, will evaluate the Research Instructor and program performance by providing comments. This information will be used to make changes to improve the experience for the resident and/or improve scholarly activity of the resident.

Prepared by
Balavenkatesh Kanna, MD., Associate Program Director.

Reviewed by
Program director
Otolaryngology/Non-operative Orthopedics/Medical Ophthalmology/Office Gynecology/Rehabilitation Medicine/Dermatology/Psychiatry

Goals: The goal of the curriculum in the above disciplines is to ensure that residents acquire knowledge, skills and attitude necessary for providing care to patients presenting with these problems as well as acquiring the necessary skills and competencies to direct/refer patients who need more specialized care.

Primary Teaching Methods and Setting
Residents will acquire experience in management of patients who fall into these disciplines during the Ambulatory Block rotation. They will attend the clinics under the supervision of the respective Chiefs of departments. In addition, conferences will be scheduled throughout the three years of post-graduate training. The experience in dermatology, psychiatry, and rehabilitation medicine is acquired through routine interaction with the respective consultative services. In addition, experience in rehabilitation medicine is acquired through participation in the multidisciplinary rounds, both on the regular floors and in the setting of the specialized geriatrics in patient (GEMS) service. A dermatology online module has been introduced to allow residents to become familiar with the most common dermatological conditions that are encountered in medical practice.

Discipline Specific Learning Objectives:

Otolaryngology: Residents are expected to demonstrate competency in examination of the head and neck area, and approach to the patient with nasal congestion, ear pain, hearing loss, or nose bleed;

Non-operative Orthopedics: Residents are expected to demonstrate the ability to perform a complete joint examination, utilize common splints in the outpatient setting, evaluate and work up patients with common orthopedic problems (sprains, back ache, dislocations, fractures).

Medical Ophthalmology: Residents are expected to demonstrate competency in examination of the eye, including fundoscopy, and in recognizing the ocular manifestations of systemic disease, as well as diseases specific to the eye – i.e. glaucoma, conjunctivitis, red eye, orbital cellulitis, ulcers.

In addition to their experience in the ophthalmology department, residents are required to complete web based ophthalmology modules.

Office Gynecology: Residents are expected to demonstrate competency in performing pelvic exam, review, and approach to the patient with pelvic pain, vulvovaginitis, menstrual irregularities, urinary incontinence, and hormone replacement therapy/options, preparation of PAP smears and their interpretation.

Competencies

Patient care
Residents are expected to be able to provide effective, efficient, and safe care, based on clinical judgment, scientific evidence and patient preference, with sensitivity and compassion. A detailed discipline specific history and physical exam should be performed.

Medical Knowledge
Residents are expected to be knowledgeable about the medical conditions common to these non-internal medicine specialties (see learning objectives). Based on pertinent history, physical findings and laboratory investigations, resident should be able to synthesize the data and make a differential diagnosis and management plan.

Interpersonal and communication skills
Residents must demonstrate competency in communication with specialists from different non-internal medicine disciplines. In addition, they should be able to establish effective communications with patients, be able to discuss the risk and alternatives of discipline specific procedures in the larger context of informed consent, advise patients on treatment options and prognosis. Residents must be able to request consults/referrals by summarizing patient’s presenting symptoms and physical findings, and formulating a relevant question to be addressed by the consultant.

Professionalism
Residents are expected to demonstrate compassion and sensitivity when dealing with the patients. Attention must be paid to patient privacy and confidentiality.

System based practice
Residents must be knowledgeable about the specifics of providing care to patients with these problems, i.e. – arranging referrals/consultations, transportation for patients with orthopedic problems or patients requiring specialized ophthalmology examinations that may interfere with their ability to drive, involving social services and arranging for inpatient and outpatient rehab when needed, closely interact with psychiatry for patients who need prompt referral from the outpatient clinic, understand the available insurance coverage when prescribing orthopedic devices (walker, cane, scooters) or referring patients for rehab, following up PAP smears results etc.

Practice based learning
The residents are expected to be able to recommend appropriate investigations and incorporate the result in management, analyze their clinical experience to determine way of improving the care of the patients and to develop strategies to continuously improve the quality of care.

Reviewed by
Anita Soni, MD, Chair, Department of Medicine
Vihren Dimitrov, MD. Program Director, Medicine.

Prepared by
Anita Soni, MD, Chair, Department of Medicine
Vihren Dimitrov, MD. Program Director, Medicine.

Reviewed by
Program director

Reviewed and Updated July, 2011
RESIDENT JOURNAL CLUB

The resident under supervision of our Faculty will review selected articles in Internal medicine and present their findings and critique during the Journal Club.

The Journal club objectives are as follows:
Critically appraise research methodology of a specific study of interest
Understand study designs
Understand hypothesis testing and role of chance (p values /confidence intervals)
Analyze role of bias and confounding
Interpret results and limitations and offer solutions to correct the limitations
Compare data from other studies, if available
Interpret implication of results to practice

Journal club preparation:
The Chief resident schedules the journal club in advance and informs the resident. Adequate time will be provided to the resident to prepare for the presentation. Two residents will present during each journal club. Each resident is expected to utilize 20 minutes for his or her presentation and allow 10 minutes for discussion. Residents are expected to prepare a limited set of power point slides to effectively convey the information regarding the study within the time allotted. Residents are encouraged to seek expertise and opinion on the topic of presentation including statistical methods and study designs from faculty during their preparation. Residents may not be excused from any session without prior approval from the Chief resident, Research director and Program Director.

Journal club evaluation:
Each resident is evaluated based on ACGME core competencies after the journal club presentation. A copy of the form can be obtained from the Chief Resident’s office before the journal club presentation. The Journal club supervising faculty will provide feedback immediately.

Journal Club Resources
Medical Libraries
Residents have access to a number of articles in the Health Sciences library at LMMHC. For those few journals not available from those sources, inter-library loan is available. Complete medical literature is available locally from the National Library of Medicine. The medical library has a full-time librarian available to assist residents in conducting searches from a number of resources including MEDLINE, PSYCH-LIT, CANCER-LIT and so forth.

Computer Resources
All residents have access to medical literature 24 hours a day. Computers are available with unlimited access to Internet, medical databases and word processor programs. The conference room provides equipment for PowerPoint presentations.

Prepared by
Balavenkatesh Kanna, MD., Associate Program Director.

Reviewed by
Program director

Reviewed and Updated July, 2011
COMMUNICATION SKILLS ASSESSMENT

Goals:
Achieve competency in communication skills. Assess appropriate exchange of information in an effective manner involving patients, families and other health professionals.

Objectives:
House officers are expected to:

Write a consult with the following elements:
- Provide consultant with relevant patient’s information (clinical and studies done).
- Provide a working diagnosis.
- Ask specific questions to be addressed by consultant.
- Specify consultation urgency.

Obtain an informed consent.
- Inform clearly about medical status and rationale for proposed procedure.
- Inform about benefits, risks and alternatives and risks of alternatives.

Discuss adverse outcomes and procedural complications.
- Be sensitive upon discussion/put patient/relatives at ease.
- Do not break bad news over the phone.
- Explain medical condition leading to adverse outcomes.
- Avoid medical – technical words in conversation.
- Recognize situations in which resident might need supervisors help.

Discuss advanced directives and end of life issues.
- Be sensitive upon discussion/put patient/relative at ease.
- Explain medical background leading to the discussion.
- Provide appropriate information regarding end of life issues.
- Make patient’s wishes a priority in decision making.
- Witnesses for conversation are present.

Evaluation
Communication skills evaluation form

Prepared by
Dr. Puneeta Sharma, M.D., Associate Program Director

Reviewed by:
Vihren Dimitrov, MD. Program Director

Concept of advance directives being addressed in order to protect patient.

Obtain autopsy consent.
- Be sensitive upon discussion/put relatives at ease.
- Explain the objectives of an autopsy in clear manner.
- Know process for autopsy referral.

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PBL ROTATION

Goals:
Residents must be able to objectively review their own and their colleagues’ medical records and identify opportunities for improvement as well as good practices. They should develop their supervising and teaching skills and provide effective feedback.

Primary Teaching Methods and Settings:
Residents assigned to this rotation will perform different tasks based on needs of the program. For example, early in the academic year the emphasis will be on appropriate documentation and physical examination skills. Later on, the focus will be on procedures, analytical skills (i.e. blood gas analysis), interpretation of EKG, participation in simulation lab modules. During the rotation the assigned resident will continue to provide coverage for his/her continuity clinic and is expected to participate in all didactic activities of the department.

Objectives:
House officers are expected to:
Review medical records and provide appropriate feedback.
Teach junior residents procedure skills on mannequins.
Teach special physical examination skills (i.e. eye exam including fundoscopy, ear exam).
Demonstrate/teach specific physical examination skills
Participate in sim lab activities

Competencies

Practice Based Learning
Residents are expected to be able to analyze and evaluate their skills, learn from performance improvement activities and evidence based guidelines, analyze the quality of the procedures performed, provide appropriate feedback.

Medical Knowledge
Residents are expected to learn the indications and contraindications of the procedures being taught during that rotation, the requirements for documentation, and the essential elements of informed consent (risks, benefits and alternatives).

Interpersonal and Communication skills
Residents need to develop good communication skills in order to be able to provide effective feedback and teach the skills and competencies required in this rotation.

Professionalism
Residents must show respect towards their colleagues, integrity in their analysis of the available information and the observed clinical skills/procedures and the feedback provided.

Resources
2. John Hopkins Ambulatory Care module on Acid-Base analysis
3. Sim Lab simulation scenarios
5. EKG Library : http://www.sh.tuhsce.edu/fammed/OutpatientManual/EKG/ec

Prepared By:
Jean Daniel, M.D., Associate Program Director

Reviewed by:
Vihren Dimitrov, MD. Program Director
SIMULATION LAB

Goals:
Achieve competency in physical diagnosis, managing diverse clinical scenarios, improve communication skills, work with a multidisciplinary team and develop leadership skills.

Primary Teaching Methods and Settings:
Simulation lab sessions will take place in the designated SimLab. Residents can train individually (i.e. physical examination skills) or as part of a team including residents and nurses.

Learning Objectives
Residents are expected to develop their skills in recognizing and managing different clinical conditions, to run codes, learn procedures, develop leadership skills, analyze objectively own performance.

Competencies

Interpersonal and communication skills
Residents are expected to communicate clearly in a stressful situation and to interact effectively with the other members of the team. When running a code, residents are expected to assume leadership position, organize the team members, assess the situation and direct the other team members in the most effective and appropriate way to maximize good patient outcomes. Supervising residents are expected to summarize the activity and provide appropriate feedback.

Patient care
Residents are expected to learn procedures and be able to manage critical situation to assure best possible patient outcome. In addition, they are required to demonstrate ability to quickly analyze and act upon rapidly changing circumstances, interpret different data (lab tests, changes in clinical findings, imaging reports, monitored parameters), institute timely changes in therapeutic management.

System Based Learning
Residents are expected to develop skills in working effectively as members of a multidisciplinary team taking care of critically ill patients, develop ability to utilize in the most effective manner the available resources, and learn to adapt their actions in a rapidly developing clinical scenario.

Medical Knowledge
Residents are expected to demonstrate adequate medical knowledge that will allow them to take care of critically ill patients or medical conditions requiring immediate assessment and prompt management. They must be knowledgeable and competent in performing procedures and interventions that are life saving (defibrillation, managing tension pneumothorax, etc).

Practice based learning
Residents are expected to be able to analyze objectively their actions during the debriefing session, identifying areas of improvement and good clinical practices, and learn from their mistakes. They should be able to utilize the available resources to assure the practice of evidence based medicine and to follow the available guidelines.

Resources
Sim Lab training modules
Simulated codes
Mannequins for performing procedures.

Evaluation
Residents must demonstrate competence in every module that they are participating in. Whenever their performance is unsatisfactory, the activity is repeated until the performance is satisfactory.

Prepared by:
Nehad Shabarek, MD, Associate Program Director
Director, Simulation Lab

Reviewed by:
Vihren Dimitrov, MD, Program Director

Reviewed and Updated July, 2011