INTERNAL MEDICINE DEPARTMENT

CURRICULUM

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GENERAL MEDICINE WARDS

Educational Purpose

The Internal Medicine Ward rotation is structured to provide residents with the fundamental knowledge base of internal medicine, the essential principles in the approach to internal medicine ward patients, the basic techniques of physical examination, the necessary skills in performing clinical procedures, and the capability to communicate clearly with patients, their families and other members of the health care team.

I. Principal Teaching Methods

A. The residents are expected to use a major textbook of medicine to obtain the necessary knowledge about their patients' medical problems. In addition, residents will also gather more information/teaching at morning report, attending rounds, noon conferences, grand rounds, sub-specialties consultations, and board-review sessions.

Team Structure:

To comply with the current recommendations of the Accreditation Council for Graduate Medical Education on resident workload, we have four ward teams. Each ward team consists of one faculty attending, one upper level resident, two or three interns, one fourth-year medical student, and two third-year medical students.

Roles of Team Members:

Faculty Attending: The attending will make rounds with his/her team at 9:00 a.m. every weekday. The on-call attending will do rounds with the on-call team during the weekend or holidays. The interns, or medical students present new admissions to the attending, who will discuss patient history, clinical findings, and results of laboratory tests. The attending will help the interns to develop a working diagnosis, and a therapeutic plan. At the bedside, the attending will interview and examine the patient to verify or modify any abnormal findings reported by the residents. The attending will do formal teaching rounds on non-post call days on topics in general Internal Medicine. **The attending will supervise the interns when the upper level resident is not available.**

Upper level resident: The upper level resident is responsible for running the general medicine team on a day-to-day basis. The upper level resident will also be responsible for direct supervision of the interns and medical students. The upper level resident is expected to conduct work rounds, which are separate from those of the attending. The upper level resident will be responsible for dictating the discharge summary, providing

scholarly activities such as literature searches, or coordinating presentations on specific topics.

Interns: The team interns will be responsible for admitting all patients to the team and performing a complete history and physical exam. The interns will be responsible for day-to-day management of the team patients. They will be responsible for documenting and reporting to the upper level resident or team attending about patients' status, recording daily notes, discharging the patients from the team, and coordinating outpatient follow-up. The interns may help the upper level resident dictate discharge summary of their patients.

Structure of Ward Rotation:

The four ward teams will alternate call. There is a long/short call system, whereby the team which is not immediately pre or post call will accept new admissions up to 3 p.m. on weekdays. The long call team accepts admissions from 3 p.m. to 7 a.m.

II. Patient Care

A. Objectives:

1. Obtain a complete history and recognize common abnormal physical findings.

2. Construct a master problem list, a working diagnosis, and a group of differential diagnoses.

3. Be familiar with different diagnostic tools such as the electronic thermometer, sphygmomanometer, ophthalmoscope, EKG machine, pulse oximetry, and defibrillator.

4. Become familiar with the concept of pre-test and post-test probabilities of disease.

5. Be able to perform various clinical procedures such as venipuncture, thoracentesis, paracentesis, lumbar puncture, arthrocentesis, skin punch-biopsy, bone-marrow aspiration, endotracheal intubation, and central line placement. Residents should know indications of potential complications of each of these procedures.

6. Understand how to improve patient/physician relationships in a professional way. Residents should be compassionate, but humble and honest, not only with their patients, but also with their co-workers.

7. Residents are encouraged to develop leadership in teaching and supervising interns and medical students.

8. Actively participate in all phases of patient care. Residents are encouraged to read on related topics, to share new learning with their colleagues and to keep their fund of knowledge up-to-date.

9. Learn to use the computer for literature searches, to read and analyze scientific articles.

B. Evaluation of Patient Care

Residents will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgement.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

III. Medical Knowledge

A. Objectives

Objectives will be taught through bedside teaching, attending rounds and the resident's readings relating to specific patient problems:

1. *Human Growth, Development, and Aging*: adolescent medicine, aging and introduction to geriatric medicine, management of common problems in the elderly.
2. *Preventive Medicine*: principles of preventive medicine, immunization, alcohol and substances abuse.
3. *Principle of Diagnosis and Management*: clinical approach to the patient, clinical decision-making, interpretation of laboratory data.

4. *Cardiovascular Diseases*: Congestive heart failure, cardiac arrhythmias, hypertension, coronary heart disease, interpretation of EKG, interpretation of echocardiogram, nuclear medicine imaging, indication for cardiac catheterization.
5. *Respiratory Diseases*: Respiratory failure, COPD, asthma, pulmonary embolism, pleural effusion, interpretation of pulmonary function tests.
6. *Renal Diseases*: disorders of electrolytes and acid-base, acute renal failure, chronic renal failure, glomerulonephritis, tubulointerstitial diseases, vascular disorders.
7. *Gastrointestinal Diseases*: gastrointestinal bleeding, small bowel obstruction, large bowel obstruction, ischemic bowel diseases, pancreatitis, and diarrhea.
8. *Diseases of the Liver and Hepatobiliary Tract*: Viral hepatitis, cirrhosis and portal hypertension, and hepatic failure.
9. *Hematologic Diseases*: Anemias, interpretation of the peripheral blood smear, transfusion of blood and blood products, neutropenia, disorders of the platelets, disorders of blood coagulation.
10. *Oncology*: Acute leukemias, oncologic emergencies, lymphomas.
11. *Metabolic Diseases*: Hyperlipoproteinemias, gout.
12. *Nutritional Diseases*: Principles of nutritional support, parenteral nutrition.
13. *Endocrine Diseases*: Diabetes mellitus, diabetic keto-acidosis, adrenal disorders, thyroid diseases, osteoporosis.
14. *Musculoskeletal and Connective Tissue Diseases*: Arthritis, SLE, vasculitic syndromes.
15. *Infectious Diseases*: Septic shock, principles of antimicrobial therapy, pneumonias, UTI, soft tissue infections, osteomyelitis, infective endocarditis, bacterial meningitis, enteric infections, tuberculosis, fungal infections, HIV infection, treatment of AIDS and related disorders.
16. *Neurology*: The neurologic examination, radiologic imaging, cerebrovascular accident, dementias, sleep disorders, seizures.

B. Evaluation of Medical Knowledge

The resident’s medical knowledge will be assessed by the following:

1. The resident’s ability to answer directed questions and to participate in attending rounds.
2. The resident’s presentation of patient history and physical exam, where attention is given to differential diagnosis and pathophysiology.

3. When time permits, residents may be assigned short topics to present at attending grounds. These will be examined for completeness, accuracy, organization and the residents understanding of the topic.

4. The resident's ability to apply the information learned from attending round sessions to the patient care setting.

5. The residents interest level in learning.

IV. Practice Based Learning Improvement

A. Objectives and Evaluation

The resident's performance will be evaluated on his/her willingness and ability to attain the following objectives:

1. The resident should use feedback and self evaluation in order to improve performance.

2. The resident should read pertinent required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

4. The resident should use information provided by senior residents and attendings from rounds and consultations to improve performance and enhance learning.

V. Interpersonal and Communication Skills

A. Objectives and Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a sub-specialist for evaluation and management of a patient.

2. The resident should be able to clearly present a case to the attending staff in an organized and thorough manner.

3. The resident must be able to establish rapport with a patient and listen to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized legible notes.

6. The resident must communicate any patient problems to the attending staff in a timely fashion.

VI. Professionalism

A. Objectives and Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objective:

1. The resident should continue to develop his/her ethical behavior, and must show the humanistic qualities of respect, compassion, integrity and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VII. Systems Based Learning

A. Objectives and Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as nurses, dieticians, respiratory therapists, physical therapists, social workers as well as other medical consultants.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems improvement if problems are identified.

VIII. Educational Materials

A. Mandatory Reading

1. Appropriate sections in Harrison's Principles of Internal Medicine, McGraw Hill Publisher. Residents should focus reading in particular to sections that directly relate to the problems of their patients.

OR

2. Appropriate sections in Cecil's Textbook of Medicine, W.B. Saunders Publisher. Residents should focus reading in particular to sections that directly relate to the problems of their patients.

B. Suggested Readings

1. Pertinent sections of MKSAP booklets.

2. Principles of Geriatric Medicine and Gerontology.

C. Medical Literature

The resident is encouraged to read current medical literature particularly articles that pertain to current patient problems. Examples of appropriate current medical literature are the New England Journal of Medicine, Annals of Internal Medicine, Archives of Internal Medicine and Journal of the American Medical Association.

IX. Evaluation

A. Resident Evaluation

1. The attending will closely supervise and monitor the ward team activities and the performance of residents.

2. The attending is expected to give constructive suggestions and/or criticisms as soon as the attending identifies any significant deficiencies.

3. The attending will provide residents with a mid-rotation evaluation to comment on their performance.

4. The attending will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies.

B. Program Evaluation

1. The resident will fill out an evaluation of the ward rotation at the end of the month.

2. Any constructive criticism, improvements or suggestions to further enhance training are welcome at any time.

X. Feedback

A. Residents are encouraged to discuss with the faculty advisor, attending physician, assistant program director or program director their learning experiences, difficulties or conflicts.

B. Faculty are encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

CRITICAL CARE UNIT

I. Educational Purpose

The goal of the Critical Care faculty is to train the general internist to evaluate and treat critically ill patients, use consultants and paramedical personnel effectively, and stress sensitive, compassionate management of patients and their families.

II. Principal Teaching Methods

A. The interns and junior residents are on call from 6 to 8 times per month. They work under supervision of a senior resident and ICU attending.

B. Rounds typically begin in the ICU conference room for a formal presentation of the new admissions.

C. The team then makes rounds on all patients. Diagnostic and treatment strategies are discussed at the bedside.

D. If time allows, patient discussion is complemented by small, informal lectures on ICU medicine given by the faculty. Formal teaching lectures are also provided by the attending 2 to 3 times a week.

E. Reading assignments and literature searches are given to each and every house officer in the team, and they are to be discussed after working rounds are done.

F. Time to go to noon conference is always provided to the whole team, with the exception of the intern or junior resident on call, who is to stay in the ICU and make him/herself available to the nurses for emergencies. In such lectures subspecialty faculty are to stress critical aspects of their specialty.

III. Patient Care

A. Trainees will learn to obtain a logical, chronological history from critically ill patients and their families and to do an effective physical examination in this challenging milieu. Use of information from old charts and private physicians is stressed.

B. Residents will learn to integrate physiological parameters and laboratory data with the clinical history and physical exam to make clinical diagnostic and management decisions.

C. Residents will learn the appropriate use of daily progress notes in patient follow-up, and the need for frequent reevaluation of the unstable patient.

IV. Medical Knowledge

A. Objectives

1. Understand blood gas results and respond appropriately.
2. Understand cardiovascular hemodynamics in a wide range of disease states.
3. Management of congestive heart failure and cardiogenic shock.
4. Basics of conventional mechanical ventilation.
5. Nutritional support of the critically ill.
6. Management of acute myocardial ischemia.
7. Acute renal failure - diagnosis and treatment.
8. Acute endocrinologic emergencies.
9. Acute lung injury.
10. Sepsis and the sepsis syndrome.
11. Acute treatment of cardiac arrhythmias.
12. Management of acute gastrointestinal bleeding.
13. Management of common neurologic emergencies.
14. Management of common toxicologic emergencies.

B. Procedural Skills

1. Cardiopulmonary resuscitation
2. Endotracheal intubation
3. Central venous access
4. Hemodynamic monitoring (Pulmonary Artery Catheterization)
5. Thoracentesis
6. Paracentesis
7. Lumbar puncture
8. Arterial cannulation
9. Placement of a temporary transvenous and transcutaneous pacemaker

V. Practice Based Learning Improvement

A. Objectives

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Systems Based Learning

A. Objectives
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with colleagues and other health professionals.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

5. Educational Materials:

   a. Mandatory Reading
      1. The ICU Book - John Marini (2nd edition)
      2. Critical Care Medicine: the essentials - Marini, John and Wheeler, Arthur
      3. Harrison's Principles of Internal Medicine 15th Edition

   b. Medical Literature
      References of basic (classic and recent) articles in critical care medicine are provided. These are to be read and discussed with the team.

VII. Professionalism

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty. In the ICU, these goals are met in several ways:

   a. Sensitive handling of a do-not resuscitate order.

   b. Respect and compassion for the depersonalized, intubated, non-communicative patient.

   c. Appropriate use of consultants and paramedical personnel.

d. Compassionate handling of families and development of rapport with them.

e. Residents should learn to ask permission for an autopsy in a forthright, non-threatening way and should be available to family members to discuss autopsy findings.

f. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

g. The resident must be responsible and reliable at all times.

h. The resident must always consider the needs of patients, families, colleagues, and support staff.

i. The resident must maintain a professional appearance at all times.

VIII. Evaluation

Monthly evaluations by faculty of residents and by residents of faculty are submitted. Resident evaluations are written with input from the nursing staff, patients or families as regards specific attitudes towards the critically ill patients. Faculty supervises most of the daytime procedures done in the ICU and evaluation and feedback here is immediate and ongoing.

IX. Feedback

At the midway point of the rotation, residents are given feedback (informally) on their performance to date. Areas and methods of improvement are suggested. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

AMBULATORY MEDICINE CLINIC

I. Educational Purpose

A. To provide the resident guidance and supervision as they develop a timely clinical approach to the patient in the outpatient setting. This would include the ability to formulate differential diagnoses based on the patient's specific complaints, the art of effective and appropriate communication with patients and other members of the health care delivery team.

B. To promote and teach the principles of Preventive Medicine, primary and secondary prevention in screening of asymptomatic adults.

II. Principal Teaching Methods

A. Residents who are assigned to the ambulatory teaching clinic will be assigned on a regular basis to General Care Clinic, Urgent Care Clinics and Subspecialty clinics. These clinics are held exclusively at Texas Tech University. The Urgent Care clinics consist of patients that are referred for evaluation from the Emergency department, walk-in patients with various complaints and existing patients who need timely attention. Occasionally, patients are referred to these clinics for outpatient preoperative evaluation. The Subspecialty clinics that the residents will participate in include HIV clinic, Pulmonary clinic, Hematology/Oncology clinic, GI clinic, Diabetes and Endocrine clinics, Nephrology clinic, Cardiology clinic and Rheumatology clinic. All residents in these clinics are supervised by faculty attendings. In the case of General and Urgent Care clinics, they are supervised by the General Medicine attending. This attending will review and discuss each case with the clinic residents. The General Medicine faculty attending supervises no more than four residents in any given clinic. The residents rotate in the adolescent medicine clinic for two weeks and/or rotate in the geriatrics clinic for two weeks during the PGY-I year in order to gain experience in adolescent medicine and geriatric medicine.

B. The patients seen in the Ambulatory clinics are primarily indigent, community Hispanic patients. The resident will also see insured and Medicare/Medicaid patients.

C. General Medicine clinic is held two half days per week. Urgent Care clinic is held two half days per week. General Medicine clinic is held jointly with the Texas Tech School of Pharmacy.

D. General Medicine staff will provide didactic guidance during case reviews that is in accordance with national guidelines for the management of hypertension, diabetes, cholesterol management and congestive heart failure, osteoporosis, osteoarthritis and anticoagulation. Residents will be provided with website resources and written examinations for score in a few of these areas.

III. Patient Care

A. Objectives

These objectives will be taught in relation to specific patients whenever possible in the clinic or while on the General Medicine Consult Service. Otherwise, they will be discussed in the didactic sessions.

1. Evaluate complaints from a symptom-oriented approach in terms of developing a management plan with the patient and establishing a diagnosis. Perform an efficient and thorough history, physical examination and diagnostic evaluation.

2. Become familiar with common complaints of ambulatory patients. For example, the approach to the patient with cough, dizziness, abdominal pain, shortness of breath, chest pain, headache, swelling of the legs, nausea, vomiting or fatigue.

3. Perform concise and targeted histories and physical examinations. Perform a focused and targeted laboratory evaluation, including demonstrating reasonable discretion in terms of when to order expensive diagnostic tests.

4. Communicate effectively, using the telephone or other techniques, with physicians, patients and nurses.

B. Evaluation of Patient Care

The resident will be evaluated using the following criteria:

1. Accuracy and completeness of history taking, medical interviewing and physical examination appropriate to the outpatient setting.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Consideration of patient preferences in making therapeutic decisions.

7. Completeness of medical charting.

8. The resident will gain experience in technical procedures as available in the subspecialty clinics, such as: arthrocentesis, lumbar puncture, anoscopy, rectal and pelvic examinations.

9. Ability to identify the patient who needs emergent attention versus the patient whose complaints can be evaluated over a longer period of time.

10. Completeness of medical charting.

11. Demonstrate the ability to determine when a patient with headache can be managed as an outpatient as opposed to when indicators of an urgent process are involved.

IV. Medical Knowledge

A. Objectives

These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic.

1. Diabetes
   Classification,pathogenesis,diagnosis,management, comprehensive preventive care, management and identification of complications in accordance with the ADA guidelines.

2. Lipid Disorders
   Pathogenesis, diagnosis, screening, therapy and monitoring of lipid disorders in accordance with the ATP III guidelines.

3. Anticoagulation management
   Pathogenesis, INR goal achievement, indications, length of treatment, complications of anticoagulation therapy in accordance with the most recent ACCP Consensus Conference on Antithrombotic Therapy (CHEST guidelines).

4. Hypertension
   Diagnosis, classification. Identification of screening interventions for secondary hypertension, management and pathogenesis. Understand the metabolic syndrome and causes of resistant hypertension in accordance with JNC 7 guidelines.

5. Congestive heart failure
   Pathogenesis, classification, diagnosis, management and prognostication in accordance with ACC guidelines.

6. Osteoporosis
   Pathogenesis, diagnosis, causes of secondary osteoporosis, and management in accordance with National standards.

7. Osteoarthritis
   Pathogenesis, diagnosis and management in accordance with National Standards.

8. Headache
   Pathogenesis, diagnosis and management.

B. Evaluation of Medical Knowledge
   The resident's medical knowledge of endocrinology will be assessed by the following:

   1. The resident's ability to answer directed questions and participate in didactic sessions.

   2. The resident's ability to apply the information learned in the resources to the patient care setting.

   3. The residents performance on multiple choice examinations by the end of the rotation.

V. Practice Based Learning Improvement

A. Objectives and Evaluation
   The resident's performance will be evaluated on his/her willingness and ability to obtain the following objectives:

   1. The resident should use feedback and self-evaluation in order to improve performance.

   2. The resident should read the required material and articles provided to enhance learning.

VI. Interpersonal and Communication Skills

A. Objectives and Evaluation
   The resident will be evaluated on his/her ability to demonstrate the following objectives:

   1. The resident should learn when to call a subspecialist for evaluation and management of a patient.

   2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

   3. The resident must be able to establish a rapport with the patients and listen to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

7. The resident will demonstrate empathy, compassion, patience and concern for the patient in relation to their medical complaints.

8. The resident will learn how to deal with psychosocial issues including depression, poverty and family abuse on an outpatient basis.

9. The resident will learn how to communicate in a clear, concise and polite manner with physicians, patients, nurses and other healthcare providers.

10. The resident will listen carefully to patient complaints and determine the appropriate course of action for those complaints which occasionally may require no more than reassurance and understanding.

11. The resident will build on the attitudes developed in the ambulatory clinic to foster the belief in working cooperatively with physicians from other fields as well as other health professionals for the benefit of the patient.

12. The resident will gain an appreciation for multifaceted differences in approach that various healthcare practitioners have in the outpatient setting. They will learn to respect these differences and work with other healthcare professionals for the common good of the patient.

VII. Professionalism

A. Objectives and Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and must show the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintains a professional appearance at all times.

VIII. Systems Based Learning

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist, surgeon, and nuclear medicine specialist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Materials

A. Mandatory Reading
Residents are encouraged to read appropriate textbook material that is germane to the types of medical problems that they see in clinic. Residents that rotate in the subspecialty clinics may be given additional readings by the respective subspecialist in that clinic.

I would say the websites of above guidelines. What do you think?
Anticoagulation syllabus (selected chapters from guidelines)

B. Suggested Reading and videos

1. MKSAP booklet on Primary Care
2. Primary Care Medicine. Noble, Greene, et at 2001 3rd edition
3. ACP teaching series videos (skin biopsy, effective communication, arthrocentesis technique).
4. U.S. Preventive Task Force

C. Medical Literature

A collection of updated review articles will be available which

address basic areas of general ambulatory medicine. The resident is encouraged to read as many of these articles as possible.

D. Pathology

Abnormal hematologic peripheral smears should be reviewed by the resident and staff generalist with a pathologist when the review is germaine to clinical decision making and the establishment of a clear diagnosis.

X. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to general internal medicine.

B. Program Evaluation

1. The residents will fill out an evaluation of the clinic rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in general internal medicine are welcome at any time.

XI. Feedback

A. The resident should receive frequent (generally daily) feedback in regards to his or her performance during the ambulatory medicine rotation. The resident will most likely spend the majority of their time with the subspecialists and not the clinic generalist. Feedback should be sought from each faculty member on a daily basis. **The clinic attending will be given an evaluation form and will not have had very much interaction with you-what should we do about this?**

B. The faculty is encouraged to use the “early concern” and “praise card” throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

CARDIOLOGY

I. Educational Purpose

To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of cardiovascular disorders.

II. Principal Teaching Methods

A. The resident will receive individual instruction by the cardiology attendings through seeing patients in the cardiology outpatient clinics, the consult service at Thomason (RETGH), and didactic teaching sessions. The resident will attend clinics at Texas Tech.

1. The resident will see indigent care, Medicaid, and Medicare patients referred from the general medicine clinics and other Texas Tech clinics to the cardiology clinic at Texas Tech. This will allow the resident to see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds.

2. Each outpatient will be evaluated by the resident, and then discussed and seen with the staff cardiologist. The resident must complete a thorough progress note on every outpatient and this must be countersigned by staff cardiologist.

3. All cardiology inpatient consults will be seen on a daily basis. The cases must be discussed with the cardiology attending who will then see the patient with the resident, do bedside teaching rounds, and complete the consultation note.

4. The cardiology staff will give two or three didactic teaching lectures weekly.

5. The residents will be responsible for monitoring the stress tests for the month of their rotation.

6. Daily interpretation of ECGs (coach-and-pupil method).

7. Exposure to Echocardiograms and Nuclear cardiology studies will occur as part of the daily responsibilities

III. Medical Knowledge

A. Objectives

These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service.

1. Arrhythmias
    a. Distinction of supraventricular tachyarrhythmias on the basis of response to carotid sinus massage and IV adenosine.
    b. Diagnosis and management of narrow-QRS tachycardias.
    c. Diagnosis and management of wide-QRS tachycardias.
    d. Usefulness of Holter monitoring.
    e. Usefulness of event recording.

2. ECG and diagnostic modalities
    a. Recognition of ventricular preexcitation and differentiation from bundle branch block and accelerated idioventricular rhythm.
    b. Recognition of various patterns of AV and IV conduction disturbances.
    c. Recognition of patterns of acute myocardial infarction.
    d. Recognition of patterns found in electrolyte abnormalities.
    e. Indications and contraindications to
        a. Treadmill exercise tests
        b. Pharmacologic nuclear "stress" testing
        c. Echocardiogram and Transesophageal echocardiogram

3. Preoperative evaluation of the non-cardiac surgical patient.

4. Acute coronary syndromes, classification, pathophysiology and identification of high risk criteria.

5. The importance of peripheral arterial disease and their implication in the morbidity and mortality of the cardiac patient.

6. Endocarditis and the Duke criteria.

7. Therapeutics (all therapies will be applied according to the most current AHA/ACC guidelines when available).
    a. Management of acute coronary syndromes.
    b. Identifications of differences in symptoms and signs, and in the management of systolic and diastolic cardiac failure.
    c. The current indications for temporary and permanent cardiac pacing will be discussed.
    d. Antibiotic prophylaxis and therapy of infective endocarditis.
    e. Management of lipid disorders.
    f. Management of heart disease in pregnancy.

g. Medical therapy and indications for Percutaneous and surgical intervention of the most common valvular problems; aortic stenosis and rfegurgitation and mitral stenosis.
h. Medical therapy and classification of hypertension.
i. Relationship of diabetes mellitus and cardiac disease and importance of aggressive therapy in this group.

B. Practice and Procedural Skills

1. Development of proficiency in examination of the cardiovascular system, in general, and cardiac auscultation, in particular.

2. Preoperative evaluation of cardiac risk in-patients undergoing non-cardiac surgery.

3. The appropriate way to answer cardiac consultations.

4. The appropriate follow-up, including use of substantive progress notes, of patients who have been seen in consultation.

5. Out-patient cardiac care.

6. Differential diagnosis of chest pain.

C. Attitudes, Values and Habits

1. Keeping the patient and family informed on the clinical status of the patient, results of tests, etc.

2. Frequent, direct communication with the physician who requested the consultation.

3. Review of previous medical records and extraction of information relevant to the patient's cardiovascular status. Other sources of information may be used, when pertinent.

4. Understanding that patients have the right to either accept or decline recommendations made by the physician.

5. Education of the patient.

D. Lifelong Learning Habits

1. Appropriate request and use of consultations.

2. Use of the medical literature in the diagnosis and management of the

patient.

3. Medical education of the physician is forever.

E. Evaluation of Medical Knowledge

The resident's Medical knowledge of cardiology will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in the didactic sessions.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

4. The resident's interest level in learning.

IV. Practice Based Learning Improvement

The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives:

A. Objectives

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

V. Interpersonal and Communication Skills

A. Objectives & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with a cardiovascular disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

VI. Professionalism

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintains a professional appearance at all times.

VII. Systems Based Learning

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist, surgeon, and nuclear medicine specialist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified

and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

VIII. Educational Materials

A. Mandatory Reading

1. Section on cardiovascular disease in Harrison's Principle of Internal Medicine, McGraw-Hill publisher

OR

2. Section on cardiovascular disease in Cecil's Textbook of Medicine, WB Saunders Publisher.

B. Suggested Reading

1. MKSAP booklet on Cardiology

C. Medical Literature

A collection of updated review articles references will also be provided which address basic areas of cardiology. The resident is strongly encouraged to read as many of these articles as possible.

IX. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to cardiology.

B. Program Evaluation

1. The residents will fill out an evaluation of the cardiology rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in cardiology are welcome at any time.

X. Feedback

A. The resident should receive frequent (generally daily) feedback in regards to his or her performance during the cardiology rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the cardiology rotation.

B. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

DERMATOLOGY

I. Educational Purpose

To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of cutaneous disorders.

II. Principal Teaching Methods

A. The resident will receive individual instruction by private practice dermatologists in a private practice setting (Mountain View Dermatology, P.A.). The residents will be taught by dermatologists certified by the American Board of Dermatology.

B. The resident will see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds.

C. Outpatients will be evaluated by the resident, and then discussed and seen with the dermatologist.

D. All dermatology inpatient consults will be seen and discussed with the dermatologist.

E. The dermatologists will give one or two didactic teaching lectures weekly, as the dermatologists and the residents schedule allows.. The schedule will vary according to how the patient schedule runs on any particular week. A variety of lecture topics will be available for the resident (two core lectures plus residents choice lectures). Refreshments will be provided for the lectures either by the clinic, the resident or thru sponsorship.

F. The residents will be responsible for reviewing a current journal review article on a dermatology topic or be asked to do some simple research on a dermatology topic.and giving a short presentations on these topics.

G. Additional instruction on how to set up and manage a private practice office will be available for those interested

III. Patient Care

A. Objectives
These objectives will be taught in relation to specific patients whenever possible in the clinic or on the consult service. Otherwise they will be discussed in the didactic sessions.

1. To become familiar with dermatology terminology and jargon.

2. To be able to reliably recognize primary and secondary skin lesions.

3. To learn how to categorize dermatologic conditions into sub-groups based on pathophysiology.

4. To gain a basic understanding of the diagnosis and management of the most common dermatology conditions, which the resident will encounter.

5. To gain a working knowledge of various systemic and topical therapies used in the treatment of skin disease.

6. To learn how to perform diagnostic tests such as the use of the Wood's lamp, KOH prep, scabies prep, Tzanck prep.

7. To learn the indications for and the techniques necessary to perform shave, punch, scissors-snip and excisional biopsies.

8. To learn indications for and the techniques necessary to safely perform liquid nitrogen treatments, intralesional steroid injections, electrodessication and wound care.

9. To understand the appropriate use of steroid agents in dermatologic therapy.

10. To understand the basics of dermatologic surgery and Mohs surgery.

11. To understand the principles and applications of ultraviolet light therapy.

12. To learn the importance of an appropriate diagnosis being made before treatment is instituted.

B. Evaluation of Patient Care

The resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate tests and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgment.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

9. Ability to establish a trusting, non-adversarial, communicative and satisfying relationship with the patient.

10. The residents timeliness, punctuality and attendance for the rotation.

IV. Medical Knowledge

A. Objectives

These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service.

1. The resident should learn the pathogenesis, diagnosis, and treatment of: Acne, Rosacea, Contact dermatitis, Atopic Dermatitis, Nummular eczema, Dyshidrotic eczema, Psoriasis, Seborrheic dermatitis, Pityriasis Rosea, Warts, Molluscum contagiosum, Herpes Simplex, Herpes Zoster, Impetigo, Folliculitis, Furuncles, Erythrasma, Tinea infections, Candida infections, Pityriasis Versicolor, Scabies, Cutaneous reaction to flea bites, Seborrheic keratosis, Keratoacanthoma, Moles, Blue nevus, Cherry angioma, Spider angioma, Pyogenic granuloma, Dermatofibroma, Keloids, Skin tags, Epidermoid cysts, Trichilemmal cysts, Milium, Digital myxoid cyst, alopecia areata, Androgenic alopecia, Sun burn, dermatoheliosis, Solar Lentigo, Solar keratosis, Phototoxic reaction, Photoallergic reaction, Polymorphous Light Eruption, Lichen Planus, Granuloma annulare, Infectious exanthema, Rocky Mountain Spotted Fever, Rubella, Measles, Scarlet fever, Varicella, Sporotrichosis, Leprosy, Tuberculosis, Leishmaniasis, Lyme disease, Cellulitis, Gonorrhea, Syphilis, Chancroid, Genital warts, Genital Herpes, Kaposi's Sarcoma, Erythroderma, Urticaria, Erythema multiforme, Erythema Nodosum, Lupus, Vasculitis, Sarcoidosis, Xanthelasma, Exanthematous Drug eruptions, Fixed drug eruptions, Vitiligo, Melasma, Melanoma, Basal Cell Carcinoma, Squamous Cell Carcinoma, Paget's disease.

B. Evaluation of Medical Knowledge

The resident's Medical knowledge of dermatology will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in the didactic sessions.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

4. The resident's interest level in learning.

5. The resident will take a pre and post test written and color slide exam. Improvement from one end of the rotation to the other should be realized.

V. Practice Based Learning Improvement

The residents performance will be evaluated on his/her willingness and ability to achieve the following objectives.

A. Objectives

1. The resident should use feedback and self-evaluation in order to improve performance.
2. The resident should read the required material and articles provided to enhance learning.
3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a sub specialist for evaluation and management of a patient with a dermatologic disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

VII. Professionalism

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, family physician, allergist, physical therapist, surgeon, and rheumatologist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Materials

A. Mandatory Reading:
Fitzpatrick T. *Color Atlas and Synopsis of Clinical Dermatology*

B. Suggested Reading:
MKSAP booklet on Dermatology

C. Medical Literature:
A collection of updated review articles will also be provided which address basic areas of dermatology. The resident is strongly encouraged to read as many of these articles as possible.

X. Evaluation

A. Resident Evaluation
The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to dermatology.

B. Program Evaluation
The residents will fill out an evaluation of the dermatology rotation at the end of the month. Any constructive criticism, improvements, or suggestions to further enhance the training in dermatology are welcome at any time.

XI. Feedback

A. The resident should receive frequent (generally daily) feedback in regards to his or her performance during the dermatology rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the dermatology rotation.

B. The faculty is encouraged to use the “early concern” and “praise card” throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

ENDOCRINOLOGY

I. Educational Purpose

To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of endocrine disorders.

II. Principal Teaching Methods

A. The resident will receive individual instruction by the endocrine attendings through seeing patients in the endocrine outpatient clinics, the consult service at Thomason (RETGH), and didactic teaching sessions. The resident will attend clinics at Texas Tech and at William Beaumont Army Medical Center (WBAMC).

B. The resident will see indigent care, Medicaid, and Medicare patients referred from the general medicine clinics and other Texas Tech clinics 2 half days a week and military active duty and dependents 3 half days a week. This will allow the resident to see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds.

C. Each outpatient will be evaluated by the resident, and then discussed and seen with the staff endocrinologist. The resident must complete a thorough progress note on every outpatient and this must be countersigned by the staff endocrinologist.

D. All endocrinology inpatient consults will be seen and consultation notes completed by the resident on Mondays, Wednesdays, and Fridays at RETGH. The cases must be discussed with the endocrinology attending who will then see the patient with the resident, do bedside teaching rounds, and complete the consultation note. The staff will see consultations alone on Tuesdays and Thursdays while the resident is at WBAMC.

E. The endocrinology staff will give two or three didactic teaching lectures weekly. These will be scheduled on Monday and Wednesday at Texas Tech and on Tuesday at WBAMC. There is also an Endocrine conference on Thursday afternoons at WBAMC.

F. The residents will be responsible for reviewing 2-3 general endocrine topics for the month and giving short presentations on these topics on Mondays. The resident's continuity clinic will be scheduled Friday morning and Friday afternoon will be used to research these topics.

III. Patient Care

A. Objectives

These objectives will be taught in relation to specific patients whenever possible in the clinic or on the consult service. Otherwise they will be discussed in the didactic sessions.

1. Recognize symptoms of hyperglycemia and hypoglycemia. Seek pertinent physical exam and laboratory information to identify systemic complications that occur as a result of diabetes such as diabetic retinopathy, neuropathy, nephropathy, CAD, or gastroparesis.

2. Become familiar with the nutritional treatment of diabetes, aspects of home glucose monitoring, and the adjustments of hypogycemic therapy required in association with abnormal glucose levels, excercise, concurrent illness, surgical procedures, etc.

3. The resident will be taught to do an appropriate and thorough foot exam of diabetic patients, including the use of the mono filament for neuropathy testing.

4. Identify signs and symptoms of thyrotoxicoses and hypothyroidism. The resident will be taught perform an adequate examination of the thyroid gland and this will be specifically demonstrated during this rotation.

5. The resident may observe or have the technique of fine needle aspiration for sampling thyroid nodules explained if none are done during the month.

6. Identify signs and symptoms of lipid disorders and their management, including the use of the National Cholesterol Education Program guidelines for treatment.

7. Identify signs and symptoms of adrenal disorders and their management, including the use of the cosyntropin stimulation test.

8. Identify signs and symptoms of pituitary disorders and their management.

9. Identify signs and symptoms of bone and calcium disorders and their management including interpretation of bone density tests.

10. Identify signs and symptoms of gonadal disorders and their management.

11. Use and interpretation of endocrine/metabolic testing. This is an important and practical component of this rotation. The resident will become familiar with the appropriate and cost effective laboratory and radiologic work up of the endocrine disorders listed in the knowledge objectives and their interpretation.

12. The resident should learn the importance of preventative medicine in routine health care and specifically in the area of diabetes management.

B. Evaluation of Patient Care
The resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgment.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

IV. Medical Knowledge

A. Objectives
These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service.

1. Diabetes
Classification, pathogenesis, diagnosis, complications, and treatment of DM1 and DM2.

2. Thyroid Disease
Pathogenesis, diagnosis, and treatment of Hypothyroidism, Hyperthyroidism, Thyroid Nodules, Goiters, and Thyroid Cancer.

3. Lipid Disorders
Classification, pathogenesis, diagnosis, complications, and therapy of lipid disorders.

4. Adrenal Disease
Pathogenesis, diagnosis, and treatment of Adrenal Insufficiency, Pheochromocytoma, Primary Hyperaldosteronism, and Incidental

Adrenal Lesions.

5. Pituitary Disease
   Pathogenesis, diagnosis, and treatment of Cushing's Syndrome, Acromegaly, Hyperprolactinemia/ Prolactinomas, Glycoprotein-SecretingTumors, Non-functioning Tumors, and Hypopituitarism.

6. Metabolic Bone Disease
   Pathogenesis, diagnosis, and treatment of Osteoporosis, Paget's disease, and Osteomalacia.

7. Hypercalcemia
   Pathogenesis, diagnosis, and treatment of Primary, Secondary and Tertiary Hyperparathyroidism, Hypercalcemia of Malignancy, and related disease

8. Male Hypogonadism and Gynecomastia
   Pathogenesis, diagnosis, and treatment of primary and secondary hypogonadism and gynecomastia.

9. Female Gonadal Diseases
   Pathogenesis, diagnosis, and treatment of Premature Ovarian Failure, Menopause, Hirsutism, and Virilization.

10. Hyponatremia
    Pathogenesis, diagnosis, and treatment of Central and Nephrogenic DI.

11. Hypoglycemia
    Pathogenesis, diagnosis, and treatment of Insulinoma, Factitious Hypoglycemia and related disorders.

B. Evaluation of Medical Knowledge
The resident's Medical knowledge of endocrinology will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in the didactic sessions.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

4. The resident's interest level in learning.

V. Practice Based Learning Improvement

The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives.

A. Objectives

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with an endocrine disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

VII. Professionalism

A. Objectives & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintains a professional appearance at all times.

VIII. Systems Based Learning

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist, surgeon, and nuclear medicine specialist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Materials

A. Mandatory Reading

1. Section on endocrine-metabolic disease in Harrison's Principle of Internal Medicine, McGraw-Hill publisher

OR

2. Section on endocrine-metabolic disease in Cecil's Textbook of Medicine, WB Saunders Publisher.

B. Suggested Reading

1. MKSAP booklet on Endocrinology

C. Medical Literature

A collection of updated review articles will also be provided which address basic areas of endocrinology. The resident is strongly encouraged to read as many of these articles as possible.

D. Pathology

All FNA's and surgical specimens will be reviewed by the resident and staff endocrinologist with a pathologist.

X. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to endocrinology.

B. Program Evaluation

1. The residents will fill out an evaluation of the endocrine rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in endocrinology are welcome at any time.

XI. Feedback

A. The resident should receive frequent (generally daily) feedback in regards to his or her performance during the endocrinology rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the endocrinology rotation.

B. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

GASTROENTEROLOGY

I. Educational Purpose

To give the residents formal instruction, clinical experience, and opportunities to acquire expertise in the evaluation and management of gastroenterological disorders.

II. Principal Teaching Methods

Formal instruction includes emphasis on the pathogenesis, manifestations and complications of gastrointestinal disorders. The impact of different modes of therapy and the appropriate utilization of laboratory tests and procedures is stressed.

A. Patients with gastrointestinal disorders and clinical problems are seen by residents during their internal medicine ward rotations, gastroenterology consult service rotation, and in the outpatient clinics - residents may either call in consults or perform consults, depending upon their current rotation.

B. Gastroenterology faculty provide didactic teaching and teaching on rounds.

C. Residents rotating on the consultative service see all gastroenterology consultations and also participate in outpatient care at the weekly gastroenterology clinic.

D. Residents become familiar with diagnostic and therapeutic upper endoscopy, colonoscopy, ERCP, capsule endoscopy, liver biopsy, and esophageal motility studies in our modern endoscopy unit and radiology department.

III. Patient Care

A. Residents will have formal instruction, clinical experience, and opportunities to acquire expertise in the evaluation and management of patients with most of the following clinical problems:

1. dysphagia
2. abdominal pain
3. acute abdomen
4. nausea and vomiting
5. diarrhea
6. constipation
7. gastrointestinal bleeding
8. jaundice
9. abnormal liver chemistries
10. cirrhosis and portal hypertension
11. malnutrition
12. genetic/inherited disorders
13. surgical care of gastrointestinal disorders

B. Residents will have instruction in the indications, contraindications, complications, limitations and exposure to the interpretation of the following diagnostic and therapeutic procedures:

1. imaging of the digestive system including; ultrasound procedures, computed tomography, nuclear medicine procedures, vascular radiology procedures, magnetic resonance imaging.

2. endoscopic procedures including EGD, PEG, sclerotherapy, variceal banding, electrocoagulation, esophageal dilation, colonoscopy, polypectomy, ERCP including sphincterotomy and therapeutic procedures, and capsule endoscopy.

3. specialized dilation procedures

4. percutaneous cholangiography

5. percutaneous endoscopic gastrostomy

6. liver and mucosal biopsies

7. gastrointestinal motility studies

9. enteral and parenteral alimentation

C. Opportunities will be provided for the resident to gain competence in the performance of the following procedures:

1. the abdominal examination

2. paracentesis

3. Sengstaken-Blakemore tube placement

4. rigid and/or flexible sigmoidoscopy

IV. Medical Knowledge

A. Knowledge Objectives

Residents will have formal instruction, clinical experience, and opportunities to acquire expertise in the evaluation and management of some or all of the following disorders:

1. Diseases of the esophagus

2. Acid-peptic disorders of the gastrointestinal tract
3. Motor disorders of the gastrointestinal tract
4. Irritable bowel syndrome and other functional GI disorders
5. Disorders of nutrient assimilation
6. Inflammatory bowel diseases
7. Vascular disorders of the gastrointestinal tract
8. Gastrointestinal infections
9. Gastrointestinal and pancreatic neoplasms
10. Gastrointestinal diseases with an immune basis
11. Pancreatitis
12. Gallstones and cholecystitis
13. Alcoholic liver disease
14. Viral and immune hepatitis
15. Cholestatic syndromes
16. Drug-induced hepatic injury
17. Hepatobiliary neoplasms
18. Chronic liver disease
19. Gastrointestinal manifestations of HIV infections

B. Evaluation of Medical Knowledge

Residents will be evaluated on their performance in the following manner:

1. Consults will be reviewed with the attending physicians.
2. Patient presentations and conference presentations will be reviewed.
3. Procedures done by the resident will be documented, giving the indications, outcomes, diagnoses, level of competence and assessment by

the supervisor of the ability of the resident to perform it independently.

4. Mid-rotation evaluation session with the faculty member working with the resident.

5. The residents will also fill out an evaluation of the gastroenterology rotation at the end of the month.

V. Practice Based Learning Improvement

A. The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives.

Objectives:

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. Residents should develop the following lifelong learning habits to insure their continuing development and education:

1. The ability to ask gastroenterology consultants a precise and clear Question.

2. The development of critical reading skills for the gastroenterology literature.

3. Ability to give clear patient presentations to consultants and at conferences in gastroenterology.

VII. Professionalism

A. The program wishes to develop the following attitudes, values and habits:

1. Respect for the risks and benefits of diagnostic and therapeutic Procedures.

2. Prudent, cost-effective and judicious use of special instruments, test

and therapy in the diagnosis and management of gastroenterologic disorders.

3. Appropriate method of calling gastroenterology consults.

4. Need for continually reading current literature on gastroenterology–liver diseases to stay current in terms of diagnosis and treatment of diseases.

VIII. System Based Learning

A. Objectives and Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, surgeon, radiologist and pathologist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of system's improvement if problems are identified.

IX. Educational Materials

A. Texas Tech and Thomason have large patient populations with a broad spectrum of gastrointestinal and liver diseases.

B. Pathology and Radiology have excellent diagnostic testing services available.

C. Medical Literature

D. The resident will be oriented to the major textbooks and journals in gastroenterology and hepatology available in the Texas Tech Library. Articles related to major topics will also be made available.

X. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six

competencies as related to gastroenterology.

B. Program Evaluation

1. The residents will fill out an evaluation of the gastroenterology rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in gastroenterology are welcome at any time.

XI. Feedback

Residents will receive feedback with respect to achieving the desired level of proficiency and working out ways in which they can enhance their performance when the desired level of proficiency has not been achieved. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

GENERAL INTERNAL MEDICINE CONSULTATION SERVICE

I. Educational Purpose: To provide a learning opportunity that will enable residents:

A. To identify and define the severity of significant medical problems in patients on nonmedical services and provide evidence-based recommendations for optimal management.

B. To develop the professional and social skills necessary for effective interdisciplinary communication and patient care.

C. To perform a comprehensive preoperative evaluation of patients for non-cardiac surgery, to help optimally manage them preoperatively, and be available for close follow-up postoperatively.

II. Principal Teaching Methods

A. On the inpatient consultation service, the resident will obtain the patient's history, examine the patient, review the laboratory data and present the findings to the general medicine attending on the consult service for that month. After the attending physician reviews this information and performs a physical examination, a consultation response is developed. The findings and recommendations are summarized on the consultation report, which is then signed and placed on the chart. An annotation may be entered at this point on the Progress Record reflecting the date and time of the consultation.

B. General medicine consultations are also performed in the outpatient setting. The resident who is on the consultation for that month will be in the outpatient clinic on Monday and Friday morning to see patients referred from other services for medical problems as well as outpatient preoperative evaluation and surgical risk assessment. The resident interviews the patient, performs a physical examination, and then presents the case to the general medicine faculty attending in the clinic. After reviewing the history and physical exam, the findings and recommendations are completed.

C. The body of knowledge for internal medicine consultants is a rapidly growing and changing literature that requires continuous review to insure current, evidence-based care for our patients. Each resident who rotates on the consultation service should become familiar with this literature. In Section IV, Educational Materials, selected references are given to assist the resident toward this end. During the rotation, readings regarding preoperative evaluation and consultation will be reviewed during rounds and in individual teaching conferences.

III. Educational Objectives

A. Knowledge: Residents should be able to:

1. Recognize and assess risk, particularly as it pertains to the evaluation of the preoperative surgical patient.
2. Describe important aspects of surgery and anesthesiology as they pertain to the management of patients with medical conditions. Our residents are not expected to know technical aspects of surgery. However, they should gain an appreciation of the effects the length and type of surgery and various aspects of anesthesiology on the patient's medical condition.

B. Skills: Residents should demonstrate specific skills, including:

1. Application of technical skills acquired in internal medicine training to the consultation service. Specifically they will learn how to obtain a history and physical exam with a focus on a comprehensive preoperative evaluation.
2. Communication in a timely manner with the physician requesting the consultation. The resident will become familiar with ethical principles of consultation such as answering consultations punctually, communicating effectively with the requesting physician, respecting the relationship between requesting physicians and their patients, and successful resolution of conflict resolution when differences of opinion are encountered.

C. Attitudes: Residents should demonstrate attitudes that:

1. Stress efficiency, specificity and patient advocacy.
2. Demonstrate willingness to help the requesting physician while not interfering with the relationship between the requesting physician and her/his patient.
3. Recognize the important and necessary role of medical consultation, particularly in the surgical patient and develop an appreciation for patient problems that are not in the normal internal medicine domain.

D. Self-Directed Learning: Residents should master and practice self-directed life-long learning habits that include:

1. The ability to access and utilize information systems and resources efficiently to obtain current information on issues and clinical questions relevant to the diagnosis and medical management of adult patients.

2. An appreciation of how the effective internist functions in the absence of complete data to anticipate problems and appropriately monitor a patient's post-operative course.

3. Application of knowledge and information gained from the medicine consultation service and preoperative evaluations throughout the broad scope of the practice of general internal medicine.

IV. Educational Material

A. Essential Reading. Each attending on the consultation service will assist the resident with literature and selected references which may be helpful in managing specific patient related problems encountered during the rotation. There are a few key references that tend to form the basis of much of the response to consultation requests. Review of these references by all residents is recommended. They include:

1. Goldman L, Lee T, Rudd P. Ten commandments for effective consultations. *Arch Intern Med* 1983;143:1753-1755.
2. Goldman L, Caldera DL, Nussbaum SR, et al. Multifactorial index of cardiac risk in noncardiac surgical procedures. *N Engl J Med* 1977;297:845-850.
3. Eagle KA et al. Guidelines for perioperative cardiovascular evaluation for noncardiac surgery. Report of the ADD/AHA Task Force on Practice Guidelines (Committee on Perioperative Cardiovascular Evaluation for Noncardiac Surgery). *Circulation* 1996;93:1278-1317.
4. Hirsch IB, Paauw DS, Brunzell J. Inpatient management of adults with diabetes. *Diabetes Care* 1995;18:870-878.
5. Jacober SJ, Sowers JR. An update on perioperative management of diabetes. *Arch Intern Med.* 1999;159:2405-2411.
6. Torbey MT, Bhardwaj A. How to manage blood pressure in critically ill neurologic patients: controlling the critical interaction with cerebral blood flow. *J Crit Illness* 2001;16(4):179-192.

B. Additional Reading. Other sources of reference material including medical texts concerning general medicine consultation and preoperative evaluation are available in the Gallo Library of the Health Sciences. Residents are encouraged to peruse these references for additional guidelines for the evaluation of patients on the consultation service. Included in this category are:

1. Gross, RJ, Caputo GM, Eds. *Kammerer and Gross' Medical Consultation: The Internist on Surgical, Obstetric, and Psychiatric Services,* 3rd Edition. Williams & Wilkins. Baltimore, 1998.

2. Goldman, Brown, Levy, Slap, Sussman, Eds. *Medical Care of the Surgical Patient: A problem oriented approach to management*. J. B. Lippincott Company, Philadelphia. 1982.
3. Lubin MF, Walker HK, Smith RB, Eds. *Medical Management of the Surgical Patient*, 3rd Edition. J. B. Lippincott Company, Philidelphia1995.
4. Breslow MJ, Miller CF, Rogers M. Eds. *Perioperative Management*. C.V. Mosby Company, St. Louis, 1990.
5. Goldman DR, Brown F, Guarnieri D, Eds. *Perioperative Medicine*, 2nd Edition. McGraw-Hill, Inc, New York. 1994.

V. Evaluation

All residents in the Department of Internal Medicine receive formal evaluations on standardized evaluation forms. Evaluation and feedback will occur during the rotation, which will generally be in the PG-2 year allowing sufficient time and opportunity for further education and improvement during the remainder of that year and in the PG-3 year, either on ward rotations or on a second consult service rotation.

VI. Feedback

Residents will receive feedback from the attending physician during the consultation rotation. Review is especially encouraged at the midpoint and at the end of the rotation, when the resident and attending should schedule a face-to-face discussion of the learning experience on the consultation service.

VII. Resources

General Medicine consultation is frequently requested from Psychiatry, Orthopedics, General Surgery, and OB/GYN. Patients from these services provide the Internal Medicine resident with a broad experience in delivering consultation concerning a vast array of problems. The support services from the Departments of Pathology Radiology and the Gallo Library of the Health Sciences are very helpful in the evaluation of these patients.

HEMATOLOGY-ONCOLOGY

I. Educational Purpose

To give the residents formal instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of malignant disorders.

II. Principal Teaching Methods

A. The resident will receive individual instruction by the hematology/oncology attending through seeing patients in the Texas Tech hematology/oncology outpatient clinic and at the University Breast Care Center (UBCC). The resident will also be responsible for patients on the oncology inpatient service and the inpatient consult service at Thomason hospital. Didactic teaching sessions will be provided by the attending.

B. The resident will see indigent care, Medicaid, and Medicare patients referred with hematology/oncology problems from the general medicine clinics and other Texas Tech clinics 2 half days a week (Tuesday & Thursday mornings, starting at 8:30 AM). In addition, the resident will also see breast cancer patients (new diagnosis and follow up) at the University Breast Care Center Clinic (UBCC) 2 half days a week (Monday & Wednesday afternoons, starting at 1:00 PM). This will allow the resident to see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds.

C. Each outpatient will be evaluated by the resident, and then discussed and seen with the staff hematologist/oncologist. The resident will review the medical records, evaluate, and examine each patient; followed by discussion with hematology/oncology staff who will examine the patient and reassess the patient care and follow-up plan. The resident must complete the history and physical examination on the outpatient visit sheet and complete the recommendations after discussion with the attending.

D. The resident will also be responsible for the inpatient oncology service at Thomason hospital, to include admission history and physical examination and daily rounds (Monday through Friday). The resident will dictate all discharge summaries for the month they are on service.

E. All inpatient hematology/oncology consults will be seen and consultation notes completed by the resident Monday through Friday. The resident will perform a complete history, physical exam, and review pertinent laboratory, radiologic and pathologic data. The case will be presented to the attending along with a discussion of the primary diagnosis and differential diagnosis, as well as a suggested therapeutic plan. The attending will then see the patient with the resident, do bedside teaching rounds, and write the recommendations on the

consultation form.

III. Patient Care

A. Objectives:

These objectives will be taught in relation to specific patients in the clinic or on the consult service:

1. Recognize the signs and symptoms of oncologic emergencies (fever and neutropenia; hypercalcemia; tumor lysis syndrome; hyperleukocytosis; spinal cord compression; superior vena cava syndrome). Seek pertinent physical exam, laboratory information, radiographic, and pathology reports necessary to identify the oncologic emergency.
2. Become familiar with the evaluation of hematologic disorders (anemia, thrombocytopenia, leukocytosis, coagulopathies). Seek pertinent history, physical exam, and laboratory information necessary to identify the oncologic emergency.

3. Become familiar with the hematologic malignancies (leukemias, non-Hodgkin's lymphomas, Hodgkin's disease, multiple myeloma). Seek pertinent physical exam, laboratory information, radiographic, and pathology reports necessary to identify the hematologic malignancies.

4. Become familiar with the common solid tumors to include breast, colon, lung and prostate cancer. Seek pertinent physical exam, laboratory information, radiographic, and pathology reports necessary for formulating a therapeutic plan.

5. Become familiar with the complications of cancer treatment. Seek pertinent physical exam, laboratory information, radiographic, and pathology reports necessary to identify the complications.

6. Recognize the common paraneoplastic syndromes: hypercalcemia, SiADH, Eaton Lambert, ectopic ACTH. Seek pertinent physical exam, laboratory information, radiographic, and pathology reports necessary to identify the paraneoplastic syndrome.

7. Become familiar with management of metastatic disease. Seek pertinent physical exam, laboratory information, and radiographic studies to identify the metastatic disease.

8. Learn the concepts of pain management. Seek pertinent physical exam, radiographic studies necessary to manage pain appropriately.

9. Become familiar with hospice care and end of life issues. Learn when

referral to hospice is appropriate.

B. **Evaluation of Patient Care:**

The resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgment.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

IV. Medical Knowledge

A. **Objectives:**

These objectives will be taught at bedside teaching as they relate to specifc patients in the clinic and on the consult service.

1. ***Breast cancer:***
Screening, diagnosis, treatment, and follow up after completion of therapy, according to the guidelines as established by the National comprehensive Cancer Network (NCCN) guidelines.

2. ***Colon cancer:***
Screening, diagnosis, treatment, and follow up after completion of therapy, according to the guidelines as established by the National comprehensive Cancer Network (NCCN) guidelines.

3. ***Lung cancer:***
Determination of resectability, appropriate therapy for cell type and stage according to the guidelines as established by the National comprehensive Cancer Network (NCCN) guidelines.

4. ***Oncologic emergencies:***

Recognition of signs and symptoms and appropriate management of hypercalcemia, superior vena caval syndrome, neutropenic fever, tumor lysis syndrome, hyperleukocytosis, spinal cord compression.

5. ***Hematologic disorders:***
   Importance of an accurate and complete history and physical examination. Appropriate laboratory studies needed for diagnosis of anemia and coagulopathies

6. ***Hematologic malignancies:***
   Develop an understanding of the principles of therapy for acute leukemia, multiple myeloma, myelodysplastic syndromes, myeloproliferative disorders, non-Hodgkin's lymphoma and Hodgkin's disease

7. ***Complications of cancer treatment:***
   - Identification and management of common chemotherapy induced complications
   - Identification and management of common radiotherapy associated complications
   - Identification and management of common biologic therapy associated complications

8. ***Paraneoplastic Syndromes:***
   Identify the signs and symptoms of common paraneoplastic syndromes like SiADH, hypercalcemia, Ectopic ACTH, Eaton-Lambert syndrome.

9. ***Metastatic Cancer:***
   Become familiar with the diagnosis and management of metastatic cancer Diagnosis and management of bone, lung, liver, and brain metastases. Diagnosis and management of pleural effusions and ascites.

B. **Evaluation of Medical Knowledge:**

The resident's Medical knowledge of Hematology/Oncology will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in case management.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information to the patient care setting.

4. The resident's interest level in learning.

V. Practice Based Learning Improvement

The resident's performance will be evaluated on his/her willingness and ability to achieve the following objectives:

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases

VI. Interpersonal and Communication Skills

A. ***Objectives & Evaluation:***
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with hematology or oncologic problem.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listen to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

VII. Professionalism

A. **Objectives & Evaluation:**

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. Objectives & Evaluation:

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the radiologist, surgeon, and pathologist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Material

<u>Harrison's Principles of Internal Medicine</u>, 16th Edition (2005) Oncology and Hematology, part 5 (pages 435 – 693).

OR

Cecil's <u>Textbook of Medicine</u>, 22nd Edition (2004) Hematologic diseases, part XIV (pages 958 – 1106) and Oncology, part XV (pages 1108 – 1256).

MKSAP 13th edition - 2003 (Oncology & Hematology booklets).

New England Journal of Medicine (www.nejm.org)

Journal of Clinical Oncology (www.jco.org)

Blood (www.bloodjournal.org)

Understanding the benefits of adjuvant chemotherapy in Breast and Colon cancer patients (www.adjuvantonline.com)

X. Evaluation

A. Resident Evaluation:

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to hematology/oncology.

B. Program Evaluation:

1. The residents will fill out an evaluation of the hematology/oncology rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in hematology/oncology are welcome at any time

XI. Feedback

A. Feedback

1. The resident should receive frequent feedback in regards to his or her performance during the hematology/oncology rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the hematology/oncology rotation.

2. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

INFECTIOUS DISEASES

I. Educational purpose

To give residents formal instruction, clinical experience and opportunities to acquire expertise in the prevention, evaluation and management of various infectious diseases.

II. Principal Teaching methods

A. The resident will receive individual instruction by the Infectious Diseases attending while evaluating patients at the Infectious Diseases/HIV clinic and on the consult service at Thomason General Hospital, through microbiology / pathology sessions, and by didactic teaching sessions. The resident will attend the Texas Tech ambulatory ID clinic and HIV clinic at Centro de Salud Familiar La Fe.

B. The resident will see indigents as well as Medicaid and Medicare patients referred to the Infectious Diseases clinic from other Texas Tech clinics one half-day per week, and HIV/AIDS patients in the HIV clinic one half-day per week. This will allow the residents to be exposed to a wide variety of infectious processes in an heterogeneous population**.**

C. The resident will review the medical record and examine each patient followed by discussion with the Infectious Diseases staff who will examine the patient and reassess the medical problems, patient care and follow up plan. The resident must complete a thorough note that will be countersigned by the Infectious Diseases staff.

D. For in-patient I.D. consultations, the resident will perform a complete history and physical examination and establish a diagnostic/therapeutic plan. The cases must be discussed with the I.D staff with discussion of findings, bedside teaching, review of data and complete the consultation note. The I.D staff must countersign the resident's consult note.

E. The I.D attending will give three to four didactic teaching lectures each week.

F. The resident will review a topic of infectious disease or review the literature in an interesting I.D. case diagnosed or followed by the I.D. service**.**

G. The resident will attend a weekly Infectious Diseases meeting held every Monday from 4:30 to 5:30 p.m.

H. The resident will spend 2 sessions, 1 hour each, at the Thomason Microbiology lab to be familiar with the routine preparation of body fluid specimens. The resident will be trained to perform and interpret Gram stains by the microbiology laboratory coordinator.

III. Patient Care and Medical Knowledge

A. Objectives

These objectives will be taught in relation to specific patients whenever possible in the outpatient clinic or in-patient consult service

1. Acquire the skills to construct chronologies of symptoms in a febrile patient, recognizing possible exposures or risk factors and treatment that the patient may have received.
2. Become familiar with the workup of a febrile patient and differentiate from non-infectious causes of fever.
3. Suggest a logical and chronological evaluation of a patient with fever of unknown origin and expand on the differential diagnosis.
4. Recognize and interpret the importance of certain life styles and life events in the risk for specific infections, including intravenous drug abuse, sexual orientation or behavior, socioeconomic status, travel, animal exposure and environmental exposure.
5. Identify sign and symptoms and management of patients presenting with primary HIV infection and follow the Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents (March/2004).
6. Identify clinical manifestations of patients with HIV infection presenting with an opportunistic infection.
7. Identify sign and symptoms and management of patients that present with skin and soft tissue infections.
8. Recognize and appropriately manage patients with infected medical devices.
9. Recognize physical signs of intravascular infections including infective endocarditis and select appropriate treatment.
10. Distinguish common rashes associated with infectious and antibiotic therapy.
11. Recognize the role of the following underlying medical conditions in various infectious entities: Advanced age, diabetes mellitus, renal failure, malnutrition, alcoholism, COPD and cardiovascular disease, congenital or acquired immunodeficiency (including HIV infection).
12. Select appropriate antimicrobial therapy in a variety of infectious entities both in community acquired or nosocomial infections. This requires knowledge of general antimicrobial therapy with an understanding of the

risks and benefits of specific antibiotics and current understanding of the current resistance pattern.

13. Recognize and identify differential diagnosis for fever in association with other symptoms such as headache, altered mental status, abdominal pain, cough, shortness of breath, dysuria, back pain, arthralgia/arthritis, rash and new neurological deficit.
14. Recognize and understand the natural course and pathogenesis of sepsis syndrome.
15. Recognize and understand the natural and pathogenesis of sepsis associated with infection at specific organ system:
    a. Upper and lower respiratory tract infections
    b. Urinary tract infections and genitourinary tract (including STDs)
    c. Bone and joint infections
    d. CNS infections (including meningitis, encephalitis, brain abscess, epidural abscess)
    e. Gastrointestinal infections (food poisoning, hepatitis, colitis, pancreatitis)
    f. Intraabdominal infections (Including peritonitis)
16. Infections of the eye
17. Understanding end-of-life issues that pertain to the management of opportunistic and hospital-acquired infections
18. Perform and interpret Gram stains
19. Understand basic fundamental of microbiologic procedures

IV. Evaluation of Medical Knowledge

The resident's Medical Knowledge of Infectious Diseases will be evaluated by his/her:

A. Ability to perform and adequate consultation and plan of care
B. Capacity to participate in didactic infectious diseases discussions
C. Ability to apply the information learned in the didactic sessions to the patient care setting

V. Practice Based Learning Improvement

The performance of the residents will be evaluated according to their ability to:

A. Identify parameters to monitor care
B. Maintain currency with patient's clinical progress

C. Keep up to date with medical literature related to interesting cases seen in the consult service

VI. Interpersonal and Communication Skills

A. The performance of the residents will be evaluated according to their ability to:

1. Communicate with the personnel of the microbiology laboratory to obtain pertinent microbiologic data form patient's samples
2. Appropriately call a subspecialist for evaluation and management of a patient with an infectious diseases
3. Ask precise questions of infectious diseases consultants
4. Understand the essential elements of a thoughtful consult report and organize it in a systematic manner to be useful for the consultant physician and the patient
5. Establish a rapport with the patients
6. Provide efficient education and counseling to the patients
7. Write legible and organized consultation notes
8. Clearly present problems to consultants and at infectious diseases conferences

VII. Professionalism

A. The performance of the residents will be evaluated according to their ability to:

1. Understand the ethical conflict between the care of an individual and the welfare of the community
2. Understand the ethical conflicts pertaining to antimicrobial therapy, preventive measures and vaccination
3. Acknowledge medical errors and determine how to avoid future mistakes
4. Be responsible and timely with the consulting staff and with patients
5. Maintain a professional appearance at all times
6. Understand how personal and cultural characteristic impacts the efforts to control the spread of communicable diseases
7. Develop ethical behavior and humanistic qualities of respect, compassion, integrity, and honesty

VIII. System based learning

A. The performance of the residents will be evaluated according to their ability to:

1. Familiarize with the system to provide intravenous antibiotic in the outpatient setting

2. Understand the issues implicated with the transmission of an infectious agent and the responsibility of the physician to protect uninfected individuals

3. Apply evidence-based, cost-effective strategies for prevention, diagnosis and disease management

IX. Educational materials

A. Mandatory reading:

1. Principles and Practice of Infectious Disease. 5th Ed. Mandell, Douglas, Bennett. 2000

2. Section on Infectious Diseases in Harrison's Principles of Internal Medicine. McGraw hill publisher

3. A practical approach to Infectious Diseases. 6th Ed. Richard Reese and Robert Betts. 1999

B. Suggested reading:

1. Section on Infectious Diseases in MKSAP - 13th Ed.

2. Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents. Dept. of Health and Human Resources. (available on-line at: http://www.aidsinfo.nih.gov).

C. Manuals:
An updated collection of Infectious Diseases guidelines will also be provided to each resident in a CD-Rom

X. Evaluation

A. Resident evaluation

1. Residents are formally evaluated at the end of the infectious diseases rotation. The faculty will complete a standard written evaluation form used by the department.

2. Mid-rotation evaluation session between the resident and the infectious diseases staff will also be conducted

B. Program evaluation

1. The residents will complete a formal written evaluation of the infectious diseases rotation at the end of the month

XI. Feedback

Residents will receive frequent feedback concerning their performance during the infectious diseases rotation. Ways in which they can enhance their performance will be discussed when the desired level of proficiency has not been met. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation.

NEPHROLOGY

I. Educational Purpose

To train the general internist in the identification, subsequent work-up and care of the patient with renal disease in conjunction with the nephrology sub-specialist. Another goal of the division is to teach medicine housestaff and medical students basic renal physiology and pathophysiology with application toward the care of patients with a variety of renal ailments.

II. Principal Teaching Methods

A. The resident will receive individual instruction by the nephrology attendings through evaluation of patients in renal outpatient clinics and on the consult service and at didactic teaching sessions. The resident will attend clinics at Texas Tech and the outpatient dialysis center.

B. There are two Nephrology clinics per week. The resident will see patients referred from the General Medicine clinic, local private practitioners, and other services such as Surgery, outpatient Orthopedics, OB-GYN, and Neuro-Psychiatry. The resident will also attend outpatient dialysis clinic at least once during the rotation.

C. Each outpatient will be evaluated by the resident, and then discussed and seen with the staff nephrologist. The resident must complete a thorough progress note on every patient and this must be completed and countersigned by the staff nephrologist with whom the patient was discussed.

D. All nephrology inpatient consults will be seen and consultation notes completed by the resident. The cases will be discussed with the renal attending who then sees the patient with the resident, does bedside teaching rounds, and completes the consultation note.

E. Two to three didactic teaching lectures will be given weekly by the nephrology staff.

F. The resident will be assigned one or two topics to prepare and present per week.

G. Other resident responsibilities include providing continuity of care for renal clinic residents. This consists of returning phone calls and reviewing patient lab work. Any questions concerning this care will be discussed with the nephrology staff.

III. Patient Care

A. Objectives

1. Take a good history including family and social history, drug history and systemic review in order to recognize and diagnose renal disease.

2. Do a complete physical examination and recognize physical signs relevant to kidney disease.

3. Learn to do simple urinalysis and microscopy which is instrumental to diagnosing presence and types of renal disease.

4. Develop a problem list, working diagnosis and differential diagnoses.

5. Formulate a management plan following the above steps in the comprehensive evaluation of patients with suspected or known renal disease.

6. Understand the special patient-doctor relationship and then learn how to foster and strengthen it in order to perform in a professional manner.

7. Participate fully and actively in all aspects of patient care; from initial consultation to follow-up in both in-patient and outpatient care settings.

B. Evaluation of Patient Care
The resident will be evaluated with the following criteria:

1. Accuracy and completeness of history taking and physical examination.

2. Thoroughness of the review of available medical data on each patient.

3. Performance of appropriate maneuvers and procedures (when relevant) on each patient.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgments.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness and neatness of medical charting.

IV. Medical Knowledge

A. Objectives

The following objectives will be taught through didactic sessions, at bedside teachings both in the ambulatory care clinics and consult service on the wards, and the resident's mandated readings when assigned:

1. Classification of renal failure into acute and chronic types.

2. Staging of chronic kidney disease into Stages 1 to 5 according to the NKF K/DOQI Guidelines.

3. Primary and secondary Glomerulopathies; their etiologies, pathogenesis, pathology, clinical presentation, diagnosis and treatment.

4. Tubulo– interstitial disorders; their etiologies, pathogenesis, pathology, clinical presentation, diagnosis and treatment.

5. Obstructive nephropathy both acute and chronic and their management.

6. Hereditary nephropathy especially Autosomal Dominant Polycystic Kidney Disease (ADPKD) and Alport's Syndrome.

7. Special attention and consideration towards diabetic nephropathy, primary and secondary hypertension, lupus nephritis and nephritic syndrome; details on their diagnosis, work-up and treatment strategies will be emphasized.

8. Types of acid-base disorders and their management will be taught and discussed.

9. Fluid and electrolyte disorders and their management will also be taught.

10. The role and importance of urinalysis and microscopy will be taught hands-on.

11. Kidney biopsy indications for diagnosis and management of kidney disease will be taught and the resident will be able to watch the attending perform ultrasound guided renal biopsy when it is done.

12. Acute and chronic dialysis indications, principles of dialysis procedures and complications of dialysis will be taught. The resident will be able to see dialysis being performed.

13. The basics about renal transplantation will also be taught to the resident.

B. Evaluation of Medical Knowledge
The resident's medical knowledge of nephrology topics will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in didactic sessions, attending rounds and in clinics.

2. The resident's presentations of assigned topics and their display of understanding of the topic.

3. The resident's understanding of pathophysiology, differential diagnosis and management issues of the various aspects of nephrology; this will evaluate their application of information learned didactically to actual patient care.

4. The resident's enthusiasm and motivation for learning.

V. Practice Based Learning Improvement

A. Objectives and Evaluation
The resident's performance will be evaluated on their willingness and ability to attain the following objectives:

1. The resident should use feedback and self evaluation to improve their performance.
2. The resident should read the required material and articles provided to enhance learning.
3. The resident should use medical literature search tools in the library and elsewhere to find appropriate articles related to relevant cases.

VI. Interpersonal and Communication Skills

A. Objectives and Evaluation
The resident will be evaluated on their ability to demonstrate the following objectives:

1. The resident should learn when to consult a sub-specialist for evaluation and management of a patient with renal disease.

2. The resident should be able to fully and properly present the consult cases to the attending staff.

3. The resident should be able to develop a rapport with the patients and take patient preferences and concerns into consideration at all times.

4. The resident should provide effective education and counseling to patients.

5. The resident should keep proper records in patients charts.

6. The resident must communicate any patient problems to the attending staff in a timely manner.

VII. Professionalism

A. Objectives and Evaluation
The resident will be evaluated on their ability to demonstrate the following objectives:

1. The resident should continue to develop their ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.
2. The resident should be willing to accept errors and determine how to avoid them in the future.

3. The resident should always be responsible and reliable.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. Objectives and Evaluation
The resident will be evaluated on their ability to demonstrate the following objectives:

1. The resident should improve the utilization of good communication with other health services/professionals like nurses, nutritionists, therapists, surgeons, and administrative staff.

2. The resident should improve in the practice of cost effective medicine.

3. The resident will assist in determining the root cause of any error identified and methods for avoiding future recurrence.

4. The resident will assist in development of systems improvement if problems are identified.

IX. Educational Materials

A. Mandatory Reading

1. Section on Renal Diseases in Harrison's Principles of Internal Medicine, McGraw-Hill Publisher.

2. Section on Renal Diseases in Cecil's Textbook of Medicine, W.B. Saunders Publisher.

B. Suggested Readings

1. Relevant section in MKSAP booklets on Nephrology.

4. A collection of articles on various Nephrology topics will be provided to the resident at the start of the rotation. They are expected to read as many of these as possible.

5. The resident is also encouraged to read current medical literature/text from the medical library and programs such as "UpTo Date," in (Nephrology topics/Hypertension).

X. Evaluation

A. Resident Evaluation

1. Faculty will give constructive criticisms/suggestions at all times and will provide mid-rotation evaluation to the resident as well.

2. At the end of the rotation, faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to Nephrology.

B. Program Evaluation

1. The resident will fill out an evaluation of the Nephrology rotation at the end of the month.

2. Any constructive criticism or suggestions towards improving or enhancing any part of the Nephrology training program will be welcome.

XI. Feedback

A. The resident will get frequent, regular feedback with regard to their performance during the nephrology rotation.

B. Faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is done at the end of the rotation.

PULMONARY and CRITICAL CARE MEDICINE

I. Educational Purpose

A. To give the residents a broad view of pulmonary diseases seen in the El Paso/Juarez area.

B. For the residents to learn to diagnose and manage patients with commonly seen acute and chronic pulmonary diseases; and for them to know when to seek pulmonary subspecialty consultations.

II. Principal Teaching Methods

A. The resident will receive individual instruction by the pulmonary attendings through seeing patients in the pulmonary outpatient clinic, The Tillman TB clinic, and the inpatient consult service.

1. The resident will see patients referred to the pulmonary clinic one half day a week and TB patients at Tillman clinic one half day a week.

2. Each outpatient will be evaluated by the resident, and then discussed and seen with the staff pulmonologist. The resident will complete a thorough visit note on every outpatient seen and this will be completed and countersigned by the staff pulmonologist with whom the patient was seen.

3. All pulmonary inpatient consults will be seen and a consultation note completed by the resident. The case will then be discussed with the pulmonary attending that would be seeing the patient along with the resident. Appropriate bedside teaching will take place at that time and ultimately the consultation note will be completed by the attending faculty.

4. The resident will be carrying out daily follow up rounds on the consult service and writing notes accordingly. This will take place under the immediate supervision of the pulmonary attending.

B. The rotation will provide the environment and resources for the resident to acquire knowledge in the indications for and interpretation of:

1. Pulmonary function tests to assess respiratory mechanics and gas exchange, including spirometry, flow volume loops, lung volumes, diffusion capacity, airways resistance, and arterial blood gases. Towards this goal one half a day a week will be spent along with the resident in the review and interpretation of all pulmonary function tests performed at Thomason Hospital the previous week.

2. Diagnostic and therapeutic procedures, including their indications, performance and interpretation will be discussed with the resident.

3. Radiological imaging procedures including chest x-rays, computed axial tomograms of the chest and ventilation/perfusion lung scans will be individually reviewed with the resident.

III. Patient Care

A. Objectives

The pulmonary rotation will provide the educational environment and resources to allow the resident to learn to care for patients with acute and chronic pulmonary disorders in both the outpatient and hospital setting.

B. Practical Skills

At the completion of their rotation, the resident would have gained the ability to properly perform a clinical history, including a thorough review of the patients occupational exposure, a review of systems with emphasis on respiratory symptoms and a thorough physical exam with emphasis on pulmonary findings and be adept at interpretation of radiologic imaging procedures and basic pulmonary function tests.

C. Procedural Skills

The resident will be taught the indications and performance of common procedures related to the pulmonary specialty. These will include thoracentesis and needle biopsy of pleura.

D. Attitudes and Values

1. The resident should gain insight and appreciation of the psychosocial effects of acute and chronic pulmonary illnesses;

2. The resident will improve in the utilization of and communication with the Public Health Services and other professionals including the microbiologists, radiologists, pathologists and chest surgeons.

3. The resident will learn the importance of preventive medicine in routine health care and specifically in the area of tuberculosis, lung cancer and C.O.P.D.

4. The resident will become familiar with dealing with the difficulties of disease management within different age groups, different socio-

economic, educational and cultural backgrounds that are seen.

5. The resident will improve in the use of cost-effective medicine.

IV. Medical Knowledge

A. Objectives

These objectives will be taught in relation to specific patients whenever possible in the clinic or on the consult service. Otherwise they will be discussed in the didactic sessions.

1. Pulmonary infections, including fungal infections, and those in the immuno-compromised host;
2. Tuberculosis, including all aspects of management, epidemiology and prevention;
3. Obstructive lung diseases including asthma, bronchitis, emphysema and bronchiectasis;
4. Malignant diseases of the lung, pleura and mediastinum, both primary and metastatic;
5. Pulmonary vascular disease with emphasis on pulmonary embolism;
6. Pleuro-pulmonary manifestations of systemic diseases with emphasis on collagen vascular diseases;
7. Respiratory failure, including the acute respiratory distress syndrome;
8. Occupational and environmental lung disease;
9. Diffuse interstitial lung disease;
10. Disorders of the pleura and mediastinum, including pneumothorax and empyema;
11. Sleep-induced disorders of breathing.

V. Practice Based Learning

A. Objectives

1. The residents will receive frequent informal feedback from the attending physician in regards to their performance during their rotation. The residents will be informed about the results of their evaluation, and input will be requested from the resident in regard to means of improving on their experience. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation. The resident should read the required material and articles provided to enhance learning.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Systems Based Learning

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist, surgeon, and nuclear medicine specialist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

VII. Educational Materials

A. Mandatory Reading

1. Section on Pulmonary diseases in Harrison's Principles of Internal Medicine.

2. Basics of Pulmonary Function Interpretation

B. Medical Literature

1. A select collection of current review articles and clinical guidelines that address pulmonary issues will be provided.

C. Pathology

1. All surgical specimens obtained by the staff pulmonologist will be reviewed along with the resident in the Pathology Laboratory.

VIII. Evaluation of Medical Knowledge

A. Resident Criteria for Evaluation

1. The general quality of care provided by the resident to pulmonary patients in different settings;

2. The fund of knowledge in basic pulmonary medicine achieved by the resident during the rotation as evidenced by the understanding of patient problems displayed by the resident in discussions with the staff.

B. Program Evaluation

1. The resident will fill out an evaluation of the pulmonary rotation at its conclusion.

IX. Interpersonal and Communication Skills

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with an endocrine disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

X. Professionalism

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

RHEUMATOLOGY

I. Educational Purpose

A. To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of rheumatologic disorders.

II. Principal Teaching Methods

A. The resident will receive individual instruction by the Rheumatology attendings through seeing patients in the Rheumatology outpatient clinic and on the consult service at Thomason (RETGH), and didactic teaching sessions. The resident will attend the Texas Tech clinics.

1. The resident will see indigent care, Medicaid, and Medicare patients referred from the general medicine clinics and other Texas Tech clinics. The Rheumatology clinics are held three half-day a week. This will allow the resident to see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds.

2. Each outpatient will be evaluated by the resident, and then discussed and seen with the staff rheumatologist. The resident must complete a thorough progress note on every outpatient and this must be countersigned by the staff rheumatologist.

3. All rheumatology inpatient consults will be seen and consultations notes completed by the resident on Mondays to Fridays at RETGH. The cases must be discussed with the Rheumatology attending who will see the patients with the resident, do bedside teaching rounds, and complete the consultation note.

4. The rheumatology staff will give three didactic teaching lectures weekly.

5. The resident will be responsible for reviewing 2-3 rheumatology topics for the month and give short presentations on these topics. These topics are chosen from the cases seen on consult service.

III. Patient Care

A. Objectives

These objectives will be taught in relation to specific patients whenever possible in the clinic or on the consult service. Otherwise they will be discussed in the didactic sessions.

1. Recognize the symptoms of acute monoarticular arthritis. The resident will be taught how to differentiate arthritis from extra-articular causes of joint pain by performing an adequate joint examination and this will be specifically demonstrated during this rotations. Seek pertinent physical exam and laboratory information to identify the various causes of acute monoarticular arthritis such as septic arthritis, crystal induced arthritis, traumatic, osteoarthritis, onset of a systemic inflammatory process. The resident will observe how to aspirate a joint and thereafter perform one or more under my supervision. Become familiar with the appropriate initial workup and procedures required to identify the above causes and then start the appropriate therapy promptly.

2. Recognize the articular and systemic features of RA. Differentiate these from osteoarthritis. Learn to order appropriate laboratory tests in patients with undiagnosed arthritis to differentiate RA from other symmetrical chronic polyarthropathies.

3. Identify sign and symptoms of Systemic Lupus Erythematosus. Learn to order appropriate laboratory tests and learn to interpret them. Learn the management of SLE based on organ involvement.

4. Recognize the clinical features of Antiphospholipid Antibody Sydrome and learn how the order, interpret laboratory tests and treat the condition.

5. Identify sign and symptoms of Idiopathic Inflammatory Myopathy. Learn to differentiate from other myopathies. Learn the appropriate workup and management.

6. Identify the signs and symptoms of Scleroderma. Learn to order appropriate tests to recognize organ involvement and start therapy.

7. Recognize and treat seronegative spondyloathropathies. Learn the essential features that help diagnose Ankylosing Spondylitis, Psoriasis, Reactive arthritis, HIV and Inflammatory bowel disease associated arthritis.

8. Recognize and manage crystal-induced arthritis, acute and chronic. Identify monosodium urate and CPPD crystals on polarized microscopy. Learn the appropriate therapy.

9. Identify signs and symptoms of vasculitis. Learn to identify diseases that may mimick vasculitis (infection, drugs). Learn the diagnostic procedures and management.

10. Identify the different causes of soft tissue rheumatism by history, physical examination and special studies. Learn injection of bursitis and tendonitis by

observing me do one and then doing one under my supervision.

11. Use and interpretation of rheumatology testing. This is an important and practical component of this rotation. The resident will become familiar with the appropriate and cost effective laboratory and radiologic work up of the rheumatologic disorders listed in the knowledge objectives and their interpretation.

B. Evaluation of Patient Care
The resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgment.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

IV. Medical Knowledge

A. Objectives
These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service.

1. Acute Monoarticular Arthritis
Differential diagnosis, initial evaluation, appropriate laboratory orders, and therapy

2. Osteoarthritis
Classification, pathogenesis, and therapy

3. Rheumatoid arthritis
Pathogenesis, diagnosis, complications, and treatment

4. Systemic Lupus Erythematosus
Classification, Pathogenesis, diagnosis, complications and treatment

5. Antiphospholipid syndrome
   Pathogenesis, diagnosis, and treatment

6. Inflammatory and metabolic myopathies
   Classification, pathogenesis, diagnosis and therapy

7. Scleroderma
   Classification, pathogenesis, diagnosis, complications, and therapy

8. Seronegative arthropathies
   Classification, pathogenesis, diagnosis, complications and therapy

9. Crystal induced arthritis
   Classification, pathogenesis, diagnosis, and therapy

10. Vasculitis
    Classification, pathogenesis, diagnosis, and therapy

11. Fibromyalgia and soft tissue rheumatism
    Pathogenesis, diagnosis and therapy

B. Evaluation of Medical Knowledge
The resident's Medical knowledge of Rheumatology will be assessed by the following: The resident's ability to answer directed questions and to participate in the didactic sessions.

1. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

2. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

3. The resident's interest level in learning.

V. Practice Based Learning Improvement

The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives.

A. Objectives

1. The residents should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to

enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with rheumatological disesase.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listen to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patients problems to the staff in a timely fashion.

VII. Professionalism

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. Objective & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist, surgeon, and nuclear medicine specialist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Material

A. Mandatory Reading

1. Section on musculosketal disease in Harrison's Principles of Internal Medicine, McGraw-Hill publisher.

2. Section of rheumatology in Cecil's Textbook of Medicine, 21st Edition WB Sanders Publisher.

B. Suggested Reading

1. MKSAP booklet on Rheumatology.

C. Medical Literature

1. The textbook Primer on the rheumatic disease will also be provided which address all basic areas of rheumatology. The resident is strongly encouraged to read as many of these chapters as possible.

D. Pathology

All synovial fluid aspirations, synovial biopsy or any pathology pertaining to rheumatology will be reviewed by the resident and staff rheumatologist with the pathologist.

X. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to rheumatology.

B. Program Evaluation

1. The resident will fill out an evaluation of the rheumatology rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in rheumatology are welcome at any time.

XI. Feedback

A. The resident should receive frequent (generally daily) feedback in regards to his or her performance during the rheumatology rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the rheumatology rotation.

B. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

R.E. Thomason Hospital
EMERGENCY MEDICINE ROTATION

I. Educational Purpose

A. The resident will learn about the practice of emergency medicine in a busy medical center.

B. The rotating resident will be taught prioritization of care and triage.

C. The resident will learn how to interact with ambulance and other emergency service personnel.

D. The resident will learn the basic approach to common emergencies; traumatic, medical, pediatric and adult

II. Principal Teaching Methods

A. The rotating resident will provide direct patient care in the Emergency Dept. The resident is expected to perform the assigned reading and attend the regular EM residency conferences, unless excused to attend parent department conferences or clinic.

B. The resident will practice all aspects of patient care in the ED. The rotating resident will work in an environment with several trainees present at the same time. The rotator will not supervise students or other resident physicians in the ED. Each shift the rotator will be informed at check in rounds of his/her responsibilities for the shift.

III. Educational Content

A. The resident will have direct on site supervision by the attending staff, with graded progression of decision-making responsibility as the resident's abilities allow.

1. All of the resources of the RETGH ED will be available to the rotating resident during this rotation.

2. Daily review is conducted of important and instructive encounters.

3. Weekly core lecture series is mandatory for all rotating residents.

B. Competencies

1. The rotating resident will develop competency in understanding the environment of the ED as it pertains to the health care system. The following are specifically noted. It is anticipated that standard evaluation forms by the rotator's home department will include an evaluation relevant

to that department's general and discipline specific competencies. The following are noted.

2. Patient Care is evaluated as part of the monthly ED evaluation and is standardized in format with wording that parallels the Competency guidelines. If the rotators department has their own evaluative tool, in general that will be used. Procedure logs for rotators or the New Innovations system will be utilized for specific procedural skills required by that discipline. As new tools are developed by the department of EM (ie. 360 degree tools) they will become utilized for rotating residents as well.

3. Medical Knowledge is also assessed through the monthly ED evaluations.

4. Practice Based learning and Improvement in the monthly evaluations.

5. Interpersonal Skills and Professionalism are assessed with the standard form. The EM specific 360-degree tool will specifically assess this area, it will require modification for use with rotators. In addition, hospital based surveys provide feedback regarding resident performance in these areas.

6. System based Practice is assessed with the standard form. The new 360 degree tool will specifically assess this area

IV. Evaluation

A. Residents will be evaluated in the performance in the following manner:

1. Consults will be reviewed with the attending physicians

2. Patient presentations and conference presentations will be reviewed

3. Procedures done by the resident will be documented giving the indications, outcomes, diagnoses, level of competence and assessment by the supervisor of the ability of the resident to perform it independently.

4. Mid-rotation evaluation session between the faculty member working with the resident and the consult service attending for the month.

V. Feedback

Residents will receive feedback with respect to achieving the desired level of proficiency and working out ways in which they can enhance their performance when the desired level of proficiency has not been achieved. Evaluation and feedback will occur during the rotation. In addition, we are developing a real time evaluative tool for resident performance. It is anticipated that this will improve feedback.

The following is a basic instruction manual provided to all rotators:

EMERGENCY DEPARTMENT GUIDEBOOK
FOR ROTATING RESIDENTS

TEXAS TECH DEPARTMENT OF EMERGENCY MEDICINE
R.E. THOMASON GENERAL HOSPITAL
EL PASO, TEXAS

I. PROGRAM OBJECTIVES & ROTATOR RESPONSIBILITIES

Welcome to the Emergency Department! The goal of this rotation is to provide a broad-based experience and to familiarize the rotating resident with the Emergency Department. It is hoped that everyone will enjoy the experience, but, more important, that everyone learns a lot about Emergency Medicine. Because of the intensity of the experience, it is very important that everyone follow "the rules." Please be prepared to work hard and have fun.

During the rotation in the busy R. E. Thomason General Hospital ED, the rotating resident is expected to provide direct patient care to a varied group of patients. The resident will be directly supervised by EM faculty and taught many of the principles of Emergency Medicine. The rotator will be expected to:

- learn to accurately obtain all pertinent historical data
- learn correct performance & assessment of a physical exam in acute illness
- learn to correctly identify & describe radiographic abnormalities
- learn to effectively interpret historical & clinical data
- learn to develop an appropriate diagnosis & care plan for ED patients
- learn to perform emergency procedures
- learn the use of universal precautions
- gain experience in current methods of resuscitation
- attend all conferences, read assigned quiz materials & take quizzes
- be on time for all shifts

Emergency Medicine differs from other specialties in that practitioners often treat patients during, or even before, collection of historical & clinical data. Rotators will learn to prioritize care, rapidly assess stable & unstable patients, and quickly provide state of the art emergency care. The rotator will be expected to see all types of patients with the exception of major trauma. The rotator is expected to advise faculty **immediately** when seeing an unstable patient (altered mental status, high fever, chest pain, respiratory distress, GI bleed, vaginal bleeding, hemorrhage, shock, hypothermia, cardiac arrhythmia, CVA, code arrest, DKA, and other life threatening conditions). Stable patients should be evaluated initially by the rotating resident then presented to assigned faculty. ***If unsure of the stability of your patient, ASK FACULTY EARLY!!!!!!***

II. RESIDENT EVALUATIONS

A formal, written evaluation will be sent to the rotator's residency director after all assigned shifts are completed. The resident will be evaluated by all supervising faculty and the rotation

director will summate these to a single evaluation for the rotation. Under no circumstances will evaluations be sent before the rotating resident completes all rotation requirements. Most of the time, each faculty's evaluation will be sent early following the rotation with the summary somewhat later.

Residents are evaluated on prerequisite knowledge base and capabilities, motivation, problem solving ability, patient and professional relationships, written records, use of universal precautions, conference attendance and any other areas faculty wish to address specifically. Direct quotes from faculty evaluations will be included.

Occasionally, rotators experience problems on the rotation of either a personal or professional nature. If a rotating resident feels there is any problem which prevents them from performing their required duties or maximizing learning opportunities while on their EM rotation, they are requested to speak with the faculty on duty, the rotation director or the chief resident immediately.
It is difficult to fail this rotation but on rare occasion it happens. Past reasons for failure have include lack of basic medical knowledge base resulting in poor patient care, sexual harassment, unprofessional conduct, falsifying charts, lying to attendings and not following directions of attendings. Depending on the severity of the problem, the rotating resident may be informally counseled, formally counseled with notification of program director, or failed on the rotation, at the discretion of the rotation director

To do well on the rotation communication with the faculty is essential. You are expected to behave as any other professional, to be prompt, courteous and approach the experience as a team player.

III. GENERAL INFORMATION

Rotating residents will be provided a schedule of assigned shifts prior to the first day of the rotation. Rotating interns assigned to the ED for a month will be scheduled for 19 shifts; those rotating for four weeks will be scheduled for 18 shifts. Since primary service schedule requests (continuity clinics, department educational conferences, etc.) are always honored, rotators often have disjointed schedules. Requests for prolonged absences, imbalances between day & night shifts, or more than one weekend off will not be granted. In general, rotators may not change shifts, but under special circumstances may be allowed to trade with other rotating interns or ED interns. Under no circumstances may rotators trade shifts with 2nd & 3rd year EM residents. ***ALL SCHEDULE CHANGES MUST BE APPROVED BY THE CHIEF RESIDENT!*** There are no exceptions to this policy; do not ask faculty members to approve changes in the resident schedule. All changes approved by the EM chief resident will be noted on the schedule posted in the ED. All schedule changes with other residents must be mutually agreeable. Under no circumstances may a resident "call in sick". Any resident who feels he/she is too ill to work MUST contact the ED faculty, who will either excuse the resident or request they be seen by a physician. Rotators may see an ED faculty member, a faculty physician from their own department or their personal physician. This should not be a resident colleague. Please notify either the chief resident or the faculty on duty in the ED as soon as you realize you are going to be unable to work an assigned shift so coverage arrangements can be made.

Rotators are expected to arrive on time in the ED for change of shift rounds, and being "in the hospital" does not count. An unexcused absence is grounds for a failing grade for the rotation, as is chronic or excessive tardiness. Shifts are 12 hours, usually 7 AM to 7 PM, 7 PM to 7 AM, or noon to midnight. Expect to be in the ED for **at least** one half hour after the end of the shift for rounds, completing charting, patient dispositions, etc. In any event residents may not leave until care of patients has been transferred to oncoming residents. This is done at "check-out rounds" when all residents are expected to concisely present all patients being actively treated in the ED with brief H&P, lab & Xray results obtained & pending, working differential & planned disposition. Rotating residents will rarely be expected to assume the care of patients at change of shift.
After patients are placed in exam rooms, information regarding the patient appears on the Logicare computer, including patient name, time since registration, age and complaint. The physician seeing the patient will log their name into the computer system using the DR SEES function, picks up the chart from the slot in the rack with the corresponding room number, scans the V.S., nursing note and chief complaint, gets the appropriate T sheet from the rack and goes to evaluate the patient. If the patient is unstable as outlined previously, **let faculty know right away!**

Before picking up another patient, the resident should always recheck all patients previously seen with workups in progress. Always check the computer for lab results as the paper results are often misplaced and misfiled. Look for pending x-rays in the physician charting area, review them with faculty as soon as possible, and document your interpretation on the chart. Disposition patients as quickly as possible for the most efficient turnaround time for exam rooms. A frequent mistake by rotating residents is to continue to pickup new patients, start new workups, and forget to go back to check on old patients and the progress of pending workups. If you order therapy you should evaluate the effect and record it on the chart (see Patient Care Documentation for more information).

The triage classification and time in room guide the order patients are seen. Patients are triaged classed 1 through 5. Class 1 patients are code arrests, level I trauma, and other immediate life threatening problems. Class 2 patients are considered emergent and should be seen as soon as possible, with problems such as chest pain, respiratory distress, febrile neonates, etc. Class 3 patients are urgent but stable at initial triage with complaints such as abdominal pain, fractures, febrile illnesses, etc. Class 4 patients are stable and nonurgent with problems like dental pain, ingrown toenails, and superficial lacerations. Class 5 patients are requesting health care maintenance functions such as med refills, scheduled rabies injections or referrals. Patients with the most urgent classification should be seen first. Also remember patients need to be triaged frequently as vital signs & symptoms change - triage is a dynamic, not static, process.

Emergency medicine residents and faculty provide on-line medical direction for El Paso EMS, MAST, and other medical transport services. Under no circumstances will rotators be allowed to use the EMS radio or MAST telephone to provide pre-hospital direction or take patient reports. Ambulances will be met by faculty or senior EM residents only; rotators are not to triage patients at any time.

Physicians are responsible for the patients under their care the entire time the patient is

physically in the ED. The emergency physician shares but does not end responsibility for the patient when another service is consulted. Absences from the ED during assigned shifts will not be tolerated unless prior approval from chief resident or rotation director is obtained. Personal business should be taken care of on days off, and before or after shifts. Meals should be limited to one or two twenty minute breaks per shift. *NEVER LEAVE THE ED WITHOUT THE PERMISSION OF FACULTY!!!*

Physicians are expected to act and dress appropriately. Clean scrubs or business clothes are acceptable; jeans are not. See Texas Tech/Thomason policy regarding hospital scrubs. Good personal hygiene is expected at all times. Yelling at or otherwise abusing nursing staff or patients will not be tolerated. Residents are expected to see patients as long as there are patients waiting; sitting in the physician area to talk, read, make personal phone calls, study or other non-patient care activities are allowed only if no patients are waiting to be seen and all patient care duties such as charting, checking for test results, and procedures have been completed.

Conferences are mandatory on Thursday morning for all residents without primary service commitments (currently only FP residents are excused). Any resident scheduled to work both Wednesday & Thursday nights is excused from Thursday morning conference, although every effort is made to prevent this occurrence. Rotating residents are expected to read assigned chapters

Resident physicians rotating in the ED should not accept patients in transfer from other hospitals, even if this is part of the resident's normal duties while on other rotations. Transfers from other facilities are the responsibility of the admitting service; they also require nursing and administrative approval. Refer any questions regarding this policy to ED faculty on duty.

Rotating residents will usually have direct access to faculty for supervision and guidance at all times. Rarely will the faculty be out of the ED except for meal breaks and the monthly faculty meeting, and will always be in the hospital. Rotating residents should not seek the advice of ED residents, consulting residents, or others who happen to be in the ED unless directed to do so by faculty If you have any questions, ***ask faculty!***

The ED is the only rotation where you will have this degree of faculty contact. A wide variety of persons have rotated here through the years. Those that have done well have been compulsive and complete in their patient care. Superficiality has no place in the ED. If ever in doubt, err on the side of a more complete history, physical and work up. Remember, you are not expected to be managing patients on your own. A good physician is expected to know his or her own limits of knowledge and ability, and to get help when needed to effect the best patient care possible. If you have any questions, ***ask faculty!***

IV. PATIENT CARE DOCUMENTATION

Medicare, Medicaid and Tricare/Champus

Patient payment information is provided on the bottom line of the patient ID card. This information is stamped on the bottom of all pages of the patient chart while in the ED. It is the resident's responsibility to notify faculty of all patients funded by Medicare, Medicaid, or

Tricare/Champus before any intervention is begun. It is imperative that faculty be given the opportunity to assess the patient and direct the care of the patient while in the ED. You will be asked to sign a statement to this effect in order to be allowed to rotate in the ED.

<u>T System Charting</u>

A unique charting system is used in the ED at RETGH called the "T System". This is a copyrighted charting system which has been purchased. You may not reproduce these charts or remove them from the ED for use in another facility without breaking U.S. copyright laws. You are expected to fill out the T-sheets in their entirety while rotating in the ED.

<u>Orders</u>

Orders are to be written on the chart (see attached) with a legible signature on the bottom of the chart. All orders are to have the time written next to the order. Verbal orders are not accepted by ED nursing staff from rotators. Do not ask or expect nursing staff to violate this policy. Any imaging studies ordered (x-rays, ultrasounds, CT scans, etc.) are expected to have a reason for the study written next to the order.

<u>Results</u>

The results of all lab tests, imaging studies, therapeutic interventions and reexaminations should be documented on the T-sheet. If there is not enough room, results may also be documented on page 2 of the chart. If results are not documented appropriately, the chart will be returned to you by faculty prior to faculty signature for discharge.

<u>Consults and Referrals</u>

Residents in the ED should discuss patient care with the faculty physician prior to calling a consultant. Under ***<u>no</u>*** circumstances will unwritten or informal opinions be sought or accepted from other services. Obtaining consultations from other services should not be delayed for pending labs that will not significantly impact the disposition of the patient. Such delays, while adding to the convenience of the consulting resident, are not consistent with good medical practice and may delay appropriate care. Complaints from consultants should be referred to ED faculty on duty who will handle the problem appropriately.

It is extremely important that the time of consultation is written on both the chart (next to the order for the consult) and on the consult form. The resident requesting the consult is also expected to page the consultant and speak with the consultant personally both before and after the consult. This may be very different than the way consults are obtained in other patient care units of the hospital. The emergency physician requesting the consult has the option of agreeing or disagreeing with any consultation. Consult faculty when there is disagreement between the consulting emergency physician and the specialty consultant.

Some consults are obtained immediately in the ED, some are obtained on an outpatient basis, and some departments have special arrangements with the ED for consults (orthopedics, general surgery and surgical subspecialties). Ask faculty for advice regarding the protocol for consults and referrals for patients being discharged from the ED.

Disposition and Follow-up

All patients being discharged from the ED must be provided with a clear set of instructions, necessary prescriptions and supplies, and appropriate follow-up. If a consultant has seen the patient, often disposition and follow-up instructions are provided by the consultant. Usually, however, the emergency physician must provide this for the patient if no consultant was involved. Logicare offers typewritten discharge instructions in English and Spanish. It will print prescriptions possible follow-up locations and a variety of specialized instructions. Your orientation will demonstrate how to do use this function. Some patients are followed in our wound check clinic. Patients with sutures, eye patches, abscesses, minor burns not needing specialty care, and superficial cellulitis need close follow-up not available elsewhere in the community. Wound check clinic is used to provide that close follow-up for our patients who do not have a private physician. Wound check clinic is held Friday - Wednesday @ 7:00 am. No wound check clinic on Thursday mornings.

Patients with sutures are advised to follow-up in the wound check clinic for suture removal with the following specifics. Infection prone wounds, complex closures and certain other problems are usually asked to return 2 days after the placement of sutures for a check before removal .

Facial lacerations 3 - 5 days after placement
Scalp lacerations 5 - 7 days after placement
Extremity lacerations 10 - 14 days, possibly longer if over a joint (which should be splinted)

Other common patient problems followed in wound check clinic should be treated based on the following schedule:
Incision & drainage - follow up 24 - 48 hours after for packing removal
Burns - daily tx for superficial, small burns in AC.
Eye injuries - daily complete eye exams with VA, slit lamp & staining until resolution or referral
Superficial cellulitis - check QOD in AC, mark edges of infection with pen, admit if worse- can also be referred to outpatient PT for wound care
Rabies series - follow per schedule in AC, RN will vaccinate
Tetanus series - as above

Signature and Name Stamp

All T sheets, trauma sheets, charts and orders must be signed before documentation is complete. If a resident has participated in any significant extent in the evaluation and care of a patient, he or she should sign the chart. This includes charts of patients whose work-up was in progress at change of shift. The transition of care of a patient should be noted & timed on the patient chart. Any resident performing procedures should write the procedure note regardless of who is the primary emergency physician for the patient.

Sometimes the initial resident caring for a patient will need to turn over the care of the patient to an oncoming resident at change of shift. Since most patient errors occur during this time, whenever possible the original resident should complete the work-up and contact any consultants necessary before leaving for the day. Under no circumstances should a resident leave an incomplete chart or incomplete H&P for another resident to complete (for example, patients still needing sutures, pelvic or rectal exams, or other procedures.

V. OTHER DEPARTMENTS AND THE ED

Pediatrics

Pediatrics generally likes to be called early in the course of an illness. Frequently, they will do any procedures you don't want to do in the patient's workup. Pediatrics limits their practice to patients under 18, with the rare exception of certain subspecialty diagnoses that are followed through life. (Cystic Fibrosis, hematologic illness, etc.) Freely consult Pediatrics for all cases of **suspected** or known child abuse/neglect. Infants under 2 months with temperatures of 100.4 or greater are almost always admitted for suspected sepsis. ***Notify faculty immediately if you have a febrile neonate age 2 months or younger, or any other pediatric patient who is in distress.*** Small children can decompensate rapidly and require specialty care intervention early to prevent poor outcomes.

All pediatric patients discharged from the ED should be given follow-up at the Texas Tech Pediatric Clinic or their private M.D. Do not refer pediatric patients to the community or FP clinics unless the child is already an established patient at that clinic & the parents request follow-up there. Please provide the Pediatric Hotline telephone number (532-KIDS) with discharge instructions & explain to parents how to use the hotline.

OB/Gyn

Pregnant patients at less than 20 weeks gestation will be seen in the ED for all complaints. Patients at greater than 20 weeks of pregnancy will be sent to L&D triage for pregnancy related complaints (vaginal bleeding, abdominal pain, pre-eclampsia, preterm labor, etc.) but will be seen in the ED for complaints unrelated to pregnancy (asthma exacerbations, lacerations, trauma, etc.).

Vaginal bleeding is a common complaint in the ED and when working up this complain it is imperative to know if the patient is pregnant. Qualitative and quantitative BhCG are both available in the ED - use qualitative if the patient is unsure of pregnancy or quick result needed, quantitative in the known pregnant patient who is presenting with a pregnancy related complaint. The blood type and Rh of pregnant patients with vaginal bleeding is important; check in the computer and if no type/Rh is available, order it. It is best to assume that any female patient of reproductive age with a uterus and at least one ovary is pregnant until you have a negative pregnancy test. Patients who have had a tubal ligation or who are having regular menses may still be pregnant. ***If in doubt, order a serum BhCG!***

Internal Medicine

Consult as soon as enough data is available for the consultant to make a disposition. If disagreement arises as to the appropriate disposition for the patient, consult with faculty immediately. Remember, consultation does not end your responsibility for the patient. There are different residents from the medicine department for floor admissions and ICU admissions. Discuss this with your faculty.

Waiting times for internal medicine appointments are long, approximately 6 months. All patients needing medical subspecialty care (endocrinology, rheumatology, GI, cardiology, etc.) must be referred to a primary care clinic first. An important exception is Seizure Clinic - please refer all

adult patients with a seizure disorder directly to Seizure Clinic.

General Surgery & Surgical Subspecialties

Consult the surgical resident for all general surgery & surgical subspecialty problems, exclusive of orthopedics. **Major trauma and life threatening surgical emergencies (i.e., ruptured aortic aneurysm) should be referred to the senior surgical resident immediately.** Routine consults should be referred to the 1st call surgical resident. Referrals that do not need immediate consultation (nonobstructing kidney stones, reducible hernias, pilonidal cysts, lipomas, etc.) should have a consult form completed and placed in the marked box in the physician charting area along with pertinent imaging studies. Be sure to note on the consult what therapies the patient received. Surgical subspecialty clinics available for referral at Texas Tech include ophthalmology, urology, ENT, and oral surgery.

Orthopedics

Consult first call resident for all major or complicated fractures and non-reducible dislocations. The orthopedic resident should also be consulted immediately for evaluation and treatment of compartment syndrome, lacerations involving tendon or nerve injury, and fractures or dislocations with neurovascular compromise. General surgery consultation is also required for patients with vascular injuries.

Some cases may be suitable for referral without ED consultation; completed consult form & x-rays are placed in the marked consult box. Always check with the patient that the phone number on the patient's ID card is correct. Send a copy of the consult with the patient and have them call the clinic the afternoon of the next working day.

Family Medicine

Patients followed in the Texas Tech Family Practice clinic are admitted to the Family Practice in-patient service if regular floor bed or telemetry bed is required. Adult Family Practice patients requiring ICU admission are admitted & managed by Internal Medicine while in the ICU.

Psychiatry

Any psychiatric patient brought to the ER for evaluation needs a complete medical clearance to rule out infectious, toxic, intoxicant or other organic causes of organic illness prior to transfer to EPPC for psychiatric evaluation. Intoxicated patients cannot be transferred until blood alcohol levels are below 100.

Medicolegal

Notify faculty immediately if you encounter a patient complaining of rape, sexual abuse or domestic violence, stab wound(s) or gunshot wound(s).

Patients expiring within 24 hours of hospital admission must be referred to the county medical examiner's office. Please cooperate with the ME assistants in evaluating the death by answering all questions honestly and to the best of your knowledge.

All animal bites must be reported to El Paso Animal control. In El Paso, domesticated animal bites occurring near the Rio Grande or wild animal bites of any type should have strong consideration for rabies prophylaxis. Do not suture animal bites unless specifically instructed to

do so by faculty! They are usually best treated by thorough cleansing with soap and water, then copious irrigation followed by sterile, nonadherent dressings. They are followed closely in wound check clinic or may be referred to Physical Therapy for wound care.

Medical records must be thorough and complete with assessment and disposition appropriate for the subjective complaint and objective findings. Records should be able to stand up to the scrutiny of faculty and any legal observers. Documentation should include all vital signs, treatment prior to admission, medications, allergies, treatment, response to treatment, instructions, follow-up arrangements, condition on discharge, dosage and amounts of medications prescribed, and ***signature*** ***and*** ***stamp*** of all physicians contributing to the care of the patient. T sheets are to be filled out in entirety.

Community Clinics
Patients with private physicians or having a prior clinic site should be referred to their own M.D. . Logicare will provide an up to date list to patients where they may find follow-up at reduced rates

VI. THE RULES (or, *How to Fail Your EM Rotation)*

All unstable patients are to be brought to the attention of faculty immediately! Patients with the following problems are always considered to be unstable: chest pain, significant hypo- or hypertension, major trauma, altered mental status, significant tachycardia or other arrhythmia, symptomatic bradycardia, acute respiratory distress, painful vaginal bleeding, significant hypo- or hyperthermia, hematemesis, status epilepticus, pulseless extremity, infants with fever, and many other complaints. ***If in doubt about the stability of your patient, notify faculty!***

All patients are to be presented to faculty before any orders are written or procedures or pelvic exams performed.

Any patient with abdominal pain and a rectum need a rectal exam prior to presentation to faculty.

Listen carefully & follow faculty instructions.

Sexual harassment will not be tolerated and will be dealt with according to TTUHSC policy.

Any patients with Medicare, Medicaid or Tricare/Champus stamped on the bottom of the ID plate should be brought to the attention of faculty ***prior*** to evaluation.

Excessive tardiness, unexcused absence or leaving the ED without permission are all grounds for failure.

Not listening to or carrying out faculty instructions may result in failure

Any rotator who purposefully states misleading or incorrect information on the chart or verbally to faculty will fail the rotation

The best way to pass the rotation is to show up on time; appear interested; don't leave patients waiting to be seen while you study, make personal calls or socialize; follow faculty instructions; be polite to patients, ED staff and consultants; don't lie to faculty.If you didn't ask the question or do the exam; clean up paperwork & disposition patients as much as possible before leaving at end of shift; ask lots of questions and enjoy the rotation! We hope you are looking forward to your rotation in our department as much as we look forward to having you here.

GERIATRICS

I. Educational Purpose

A. Residents will learn about the principles of aging and become proficient in the application of this information.

B. Residents will learn to recognize, understand, and manage certain geriatric syndromes.

C. The resident will become proficient in the diagnosis, management, and evaluation of certain common diseases, disorders and health concerns of the elderly.

II. Principal Teaching Methods

A. Inpatient: Texas Tech and Thomason Hospital serve a large geriatric population which tends to have a great number of medical problems. The typical geriatric patient on the inpatient service is frail with multiple medical problems and usually very ill. These patients will be seen on the general medicine wards services, internal medicine consult services, and the subspecialty consult services.

B. Outpatient: A specific geriatric rotation is established with a nearby community ambulatory geriatric center, Bien Vivir. This rotation provides experience in the problems of frail geriatric patients living in the community. Patients are seen in an outpatient clinic as well as in nursing homes. An interdisciplinary team consisting of geriatrics, psychiatry, social work, physical therapy, and gerontological caseworkers will meet weekly in conference to discuss cases; the main focus of the conference will be teaching, and case management.

C. A core series of lectures in Geriatrics along with a board review of the Geriatric curriculum for third year residents is regularly scheduled.

III. Patient Care

A. Objectives

1. The resident will learn the specific approach to the geriatric patient, including the fundamentals of geriatric assessment, how to deal with families of the elderly, the surgical evaluation of the elderly patient and the care of the dying patient.

2. The resident will learn to recognize problem behaviors in long term care settings and learn how to deal with demented patients and their families.

3. Residents will learn the necessary practical and technical skills required to evaluate and treat geriatric disorders. These skills will include lumbar

spinal tap, arthrocentesis, thoracentesis, paracentesis, breast exam, pelvic exam, pap-smear, joint exam, ear exam and skin biopsies.

4. The resident will develop an appreciation and understanding of the principles of aging.

5. Residents will understand the importance of the psychosocial interview and caring for patients with dementia and neurobehavioral disorders.

6. The resident will learn to appreciate differences in management of disorders in the elderly, as opposed to the non-elderly population.

B. Evaluation of Patient Care

The resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgment.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

IV. Medical Knowledge

A. Objectives

1. Residents will learn important principles of aging, including biology and physiology of aging, psychology and demography of aging, pharmacology, preventive geriatrics (including principles of rehabilitation, long-term care, ethical and legal issues) and financing and reimbursement issues.

2. Residents will learn about dementia, neurobehavioral disorders, delirium, urinary incontinence, hearing and visual impairment, osteoporosis, injury due to falls, pressure ulcers and sleep disorders.

3. The resident will become familiar with organ system related diseases of the elderly, including cardiovascular diseases, musculoskeletal disorders, neurologic problems, infectious diseases, respiratory diseases, gastrointestinal disorders, endocrine and metabolic disorders, hematologic disorders, renal diseases, and dermatologic problems.

B. Evaluation of Medical Knowledge

The resident's Medical knowledge of geriatrics will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in the didactic sessions.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

4. The resident's interest level in learning.

V. Practice Based Learning Improvement

A. Objectives

1. The resident will learn the importance of continued scholarship in the areas of principles of aging. Reference to geriatric texts and journals will be utilized.

2. The resident will learn to recognize their own limitations and request appropriate consultation and support.

3. The resident will learn the importance of staying abreast of the medical literature addressing the various diseases and problems of the elderly.

B. Evaluation of Practice Based Improvement

The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives.

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to refer to a geriatrician for evaluation and management of a patient with geriatric disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

VII. Professionalism

A. Objectives & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. Objectives & Evaluation

The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist, occupational therapist, speech therapist, and pharmacist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Materials

A. Mandatory Reading

1. Section on Geriatric disease Chapter 9, pages 36-46 in Harrison's Principle of Internal Medicine, McGraw-Hill publisher

OR

2. Section on Geriatric disease in Cecil's Textbook of Medicine, WB Saunders Publisher.

B. Suggested Reading

1. Residents are encouraged to read appropriate articles regarding geriatric problems. The specific readings pertain to dementia, drug use in the elderly and preoperative evaluation on geriatric patients.

2. MKSAP booklet on Geriatrics

X. Evaluation

A. Evaluations will be similar to that utilized in other areas of the internal medicine training program and will have both formal and informal components. The formal evaluations will consist of written evaluations by faculty attendings on each resident when they are in various settings such as the ambulatory clinic and nursing home. Informal evaluations are based on interactions that the residents have with faculty members.

B. Program Evaluation

1. The residents will fill out an evaluation of the geriatric rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in geriatrics are welcome at any time.

XI. Feedback

A. Residents should receive feedback on their knowledge in geriatrics from a number of sources. This can come from the attending or other members of the team such as the therapists, pharmacists, and nurses. Finally, the residents receive feedback about their knowledge in geriatrics by assessing their performance when various lectures and board reviews are given, as well as when they take the in-training examination.

B. The resident will obtain feedback on the acquisition of skills from interactions with attendings, residents and nurses during their rotations. Residents may also assess their attainment of certain skills by comparing their progress with that espoused in the geriatric lecture series.

C. Feedback will also be provided by faculty in the form of evaluations as well as meetings with the resident.

NEUROLOGY ROTATION

I. Educational Purpose

To give residents formal instruction, clinical experience, and the opportunity to acquire expertise necessary to evaluate and manage neurological diseases.

II. Principal Teaching Methods

Residents will receive individual instruction by neurology physicians while interviewing patients at the outpatient clinics, and the epilepsy clinic, and in the consultation services.

A. Residents will provide indigent care and will examine Medicare, Medicaid and private patients referred to Neurology from other physicians. This will allow the residents to see a wide variety of patients from various ages, social economic, educational, and cultural backgrounds.

B. Residents will evaluate outpatients and will discuss findings by staff neurologists. Residents must complete a thorough progress note on every outpatient and this must be countersigned by the neurology staff in charge of the patient.

C. Residents will initially see the inpatient consults, and gather information from chart, radiology and laboratory reports. Residents then will discuss all this information with the staff neurologists as part of the bedside teaching round. Residents will follow these patients as their own until patients are released.

D. The neurology staff will give five teaching lectures weekly. These lectures are scheduled from 8 am to 9 am every day. On the second Friday of each month at 12 noon there is a Neurology Grand Round given by a visiting professor. On the fourth Friday at 12 noon there is a basic neuroimaging review.

E. Residents will be responsible for reviewing one general Neurology topic per week and giving a short presentation during the morning lecture.

F. Other resident responsibilities include providing continuity of care for Neurology clinic patients seen by prior clinic residents. This consists of returning phone calls and reviewing patient lab. work. Any questions concerning this care will be discussed with the Neurology staff.

III. Teaching Endeavors Through Patient Care

A. Objectives

1. Interpreting the significance of neurological symptoms

2. Performing a neurological examination

3. Interpreting the signs obtained in the examination

4. Localization of diseases process in the nervous system

5. Integration of symptoms and signs into neurological syndromes and recognizing neurological illnesses

6. Making a differential diagnosis

7. Learning the basis of neuroimaging (CT scan, MRI), and electrodiagnostic studies (EEG's and EMG's)

8. Utilizing laboratory data to complete topographic and etiologic diagnoses

9. Defining pathophysiologic mechanisms of disease processes

10. Formulating plan for investigation and management

11. Assessing prognosis

12. Understanding main neurological manifestations of systemic diseases

13. Identifying emergencies and need for expert assistance

B. Evaluation of Patient Care
Resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examination

2. Thoroughness of the review of available medical data obtained from patients

3. Performance of appropriate procedures on patients

4. Accuracy and thoroughness of patient’s assessment

5. Appropriateness of diagnosis and therapeutic decisions

6. Soundness of medical judgment

7. Consideration of patient’s preferences in making therapeutic decisions

8. Completeness of medical charting

C. At the completion of the rotation residents should be able to manage neurological disease such as epilepsy, migraine headaches, vertigo, dizziness, strokes, dementia, Parkinson's disease, multiple sclerosis, amyotrophic lateral sclerosis, neuropathies, head and spinal cord injuries and neurological complication of systemic diseases. These skills are acquired in the inpatient consultation service, inpatients, outpatient visits, and the Epilepsy clinic:

IV. Medical Knowledge

A. Objectives
These objectives will be taught through didactic sessions, and at bedside teaching.

1. Classification, pathogenesis, diagnosis, complications and treatment of
   Epilepsy (seizure disorder)
   Syncope
   Headache
   Vertigo/dizziness
   Stroke
   Brain and spinal tumors
   Head and spinal injuries
   Dementia
   Parkinson's disease
   Multiple sclerosis
   Motor neuron disease
   Infection diseases of the nervous system
   Neuropathies
   Diabetic neuropathies
   Acute and chronic inflammatory demyelinating neuropathies
   Toxic neuropathies
   Toxic neuropathies
   Neuropathies due to systemic diseases
   Neuromuscular junction diseases
   Myopathies
   Hereditary
   Acquired

2. Neurological complications of systemic diseases

3. Adverse effects, pharmacokinetics and pharamacodynamics
   Antiepileptic drugs
   Antiparkinson drugs
   Immunomodulator
   IV Immunoglobulins
   Antihypertensive medicines
   Psychotropic medicines

Neurotropic medicines
Anticoagulant medicines

B. Evaluation of Medical Knowledge
Residents' medical knowledge of Neurology will be assessed by their ability to:

1. Answer specific questions and to participate in didactic sessions

2. Properly present assigned topics (these will be examined for completeness, accuracy, organization, and resident's understanding of the subject)

3. Apply the learned information on patients care setting

4. Give more than their share and demonstrate interest, and enthusiasm in learning

V. Practice Based Learning Improvement

A. Performance will be judged by ability to:

1. use feedback and self-evaluation to improve performance

2. read the required material from textbook, journals and handouts

3. use medical literature search tools at the library and through on-line to find appropriate articles that apply to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives and Evaluation

1. Residents should be able to decide when to call another specialist for evaluation and management on a patient with a neurological disease.

2. Residents should be able to clearly present the problem to the consultant and ask a precise question to the consultant.

3. Residents should continue to develop their ethical behavior and the humanistic qualities of respect, compassion, empathy, and rapport with patients and family to promote the patient's welfare.

4. Residents should provide effective education and counseling to patients.

5. Residents must write organized and legible notes.

6. Residents must communicate to the staff in a timely fashion any problem or conflict that arouse during interaction with the patients.

VII. Professionalism

A. Objectives and Evaluation

Residents will be evaluated on their ability to demonstrate the following objectives:

1. Development of ethical behavior and humanistic qualities of respect, compassion, integrity, and honesty

2. Willing to acknowledge errors and determine how to prevent them in the future

3. Responsibility and reliability at all times

4. Consideration of needs from patients, families, colleagues and support staff

5. Professional appearance at all times

VIII. Systems Based Learning

A. Objectives and Evaluation

1. Residents should gain insight into and appreciation of the psychosocial effects of chronic illness.

2. Residents should enhance their utilization of communication with many health services and professionals such as nutritionists, nurse clinicians, physician assistants, social workers podiatrist, ophthalmologist, physical therapist, surgeon, radiologist and nuclear medicine specialist.

3. Residents should learn the importance of preventive medicine in routine health care and specifically in the area of neurological disease management.

4. Residents should be knowledgeable on the use of cost effective medicine

5. Residents will assist in development of systems of improvements to correct identified problems.

IX. Educational Material

A. Mandatory Reading

1. Gilmans, Newman SW: Maner and Gatz's Essentials of clinical neuroanatomy and neurophysiology. Philadelphia FA Davis company 1994.

2. Adams RD, Victor M: Principles of Neurology, current edition. McGraw-Hill Publisher.

3. Section on Neurology in Harrison's Principles of Internal Medicine; McGrew–Hill, Publisher.

4. Section on Neurology in Cecil's Textbook of Medicine, WB Saunders, Publisher.

5. All handouts provided through the course

B. Suggested Reading

1. The Neurologic Examination. Russell De Yong, current edition.

2. Patten J. Neurological differential diagnosis. Springer, Publisher, 1995

3. Patten and Posner, Stupor and coma. Current edition.

4. Medical Literature: A collection of updated review articles will also be provided which address all basic areas of Neurology. Residents are strongly encouraged to read as many of these articles as possible. In addition residents are encouraged to read basic neurological journals such as Neurology, Archives of Neurology and Annals of Neurology.

C. Neuroimaging: There is a formal instruction to interpret of neuroimaging techniques.

X. Evaluation

A. Residents Evaluation

The Faculty will fill out the standard Evaluation Form using the criteria for evaluations as delineated above to grade the residents' performance in each category of competency.

B. Program Evaluation

The residents will fill out an evaluation of the Neurology rotation at the end of the month. This will include constructive criticism for improvement; or suggestions to further enhance training.

XI. Feedback

Residents should receive frequent (generally daily) feedback in regards to their performance during the rotation. Residents will be informed about the results of the evaluation process and input will be requested from residents in regards to their evaluation of the Neurology rotation. There will be a formal evaluation and verbal discussion with the resident at the end of the rotation

XII. Appendix: Resources

A. Texas Tech and Thomason have large patient populations with a broad spectrum of Neurological diseases.

B. The indigent care done at Texas Tech and Thomason gives the opportunity to see pathology otherwise not available in a more affluent population.

C. Pathology and Radiology have excellent diagnostic testing services available.

D. The Neurology service at Texas Tech consists of two full-time adult neurologists, three part-time adult neurologists, and one pediatric neurologist.

Scope of services: 700 outpatient visits a month, 75 inpatient neurological consultations, about 30 admissions per month. Daily exposure to electroencephalography readings and about an average of 100 electrodiagnostic procedures (EMG/NCV) per month. Residents attend the 1300-patient epilepsy clinic.

OPTHALMOLOGY

I. Educational Purpose

To give the residents formal instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of ophthalmic disorders.

II. Principal Teaching Methods

A. The residents will receive individual instruction by the ophthalmology faculty through seeing patients in the ophthalmology clinic and didactic teaching sessions.

1. The residents will see indigent care, Medicaid, Medicare, private insurance, and private pay patients referred from the Internal Medicine clinics, Emergency Department, and other Texas Tech clinics. This will allow the resident to see a wide variety of patients from various ages, socioeconomic, educational, and cultural backgrounds.

2. Each dilated patient will be evaluated with a direct ophthalmoscope by the residents, and then discussed and seen by the staff.

3. The ophthalmology staff will give two didactic teaching lectures weekly.

4. The residents will be responsible for reviewing 2-3 general ophthalmology topics for the month and giving short presentations on these topics on Tuesday mornings.

III. Patient Care

A. Objectives
These objectives will be taught in relation to specific patients whenever possible in the clinic or on the consult service. Otherwise they will be discussed in the didactic sessions.

1. Recognize symptoms of anterior uveitis. Seek pertinent physical exam and laboratory information to identify possible systemic associations.

2. Identify signs and symptoms of diabetic retinopathy. The residents will be taught to perform an adequate examination of the fundus and this will be demonstrated during this rotation. Become familiar with grading scales for diabetic retinopathy and possible treatment options.

3. Be able to advise patients on recommended eye exam intervals based on age, type, duration, and severity of diabetes.

4. Identify signs and symptoms of cataracts and their management, including the use of visual acuity guidelines for treatment. Be familiar with the possible systemic causes of cataracts.

5. Identify ophthalmic signs and symptoms of thyroid dysfunction and their management.

6. Identify the signs and symptoms of glaucoma. Be aware of different medications and surgical techniques available to treat glaucoma.

7. Identify hypertensive retinopathy through a detailed examination of the fundus.

8. Differentially diagnose a red eye. The resident must also be able to differentiate dry vs allergic eye complications. Identify systemic conditions that commonly lead to dry eye.

9. The residents should learn the importance of preventative medicine in routine health care and specifically in the area of diabetes management.

B. Evaluation of patient care
The residents will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Accuracy and thoroughness of patient assessments.

4. Appropriateness of diagnostic and therapeutic decisions.

5. Soundness of medical judgment.

6. Consideration of patient preferences in making therapeutic decisions.

IV. Medical Knowledge

A. Objectives
Theses objectives will be taught through the didactic sessions and in clinic as they relate to specific patients in the clinic and on the consult service.

1. Diabetes
Classification, diagnosis and grading of retinopathy, pathogenesis, complications and treatments.

2. Thyroid Disease
   Pathogenesis, diagnosis and treatment of ocular complications, Superior Limbic Keratoconjunctivitis.

3. Anterior Uveitis
   Pathogenesis, diagnosis and grading, associated systemic conditions and diagnostic lab tests, complications, treatment.

4. Glaucoma
   Pathogenesis, diagnosis and grading, complications, epidemiology, and treatment.

5. Hypertensive retinopathy
   Pathogenesis, diagnosis and grading, complications, and treatment.

6. Red Eye
   Differential diagnosis, Dry vs Allergy, Systemic causes of dry eye, treatment.

7. Cataract
   Pathogenesis, diagnosis and grading, and treatment.

B. Evaluation of Medical Knowledge
The resident's medical knowledge of ophthalmology will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in the didactic sessions.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

4. The resident's interest level in learning.

V. Practice Based Learning Improvement

The resident's performance will be evaluated on his/her willingness and ability to obtain the following objectives.

A. Objectives

1. The resident should read the required material and articles provided to enhance learning.

2. The resident should use feedback and self-evaluation in order to improve performance.

3. The resident should use the medical literature search tools in the library to find appropriate article related to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives and Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a specialist for evaluation and management of a patient with an ocular disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listen to the patient's complaints to promote the patient's welfare.

4. The resident must communicate any patient problems to the staff in a timely fashion.

VII. Professionalism

A. Objectives and Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. System Based Learning

A. Objectives and Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nurse clinician, podiatrist, ophthalmologist, optometrist, neurologist and surgeon.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in the determining of the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The residents will assist in development of systems' improvement if problems ate identified.

IX. Educational Materials

A. Mandatory Readings
James, Bruce, Chew, Chris, Bron, Anthony, (2003)Ophthalmology, Blackwell Publishing ISB#1-4051-0714-6

B. Suggested Readings
Carlson, Nancy B., Kurtz, Daniel, (2004); Clinical Procedures for Ocular Examination, McGraw Hill ISB#0-07-137078-1 (selected topics)
Gault, Janice A., Ophthalmology Pearls, (2003), Hanley & Belfus ISB#1-56053-498-2

Tasman, William, Jaeger, Edward A., (2001), Atlas of Clinical Ophthalmology, Lippincott Williams & Wilkins ISB#0-7817-2774-X

C. Medical Literature
A collection of updated review articles will also be provided which address basic areas of ophthalmology. The resident is strongly encouraged to read as many of these articles as possible.

X. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to ophthalmology.

B. Program Evaluation

1. The residents will fill out and evaluation of the ophthalmology rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in ophthalmology are welcome at any time.

XI. Feedback

A. The resident should receive frequent feedback in regards to his or her performance during the ophthalmology rotation. The resident will also receive a structured verbal evaluation after one week. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the ophthalmology rotation.

B. The faculty is encouraged to use the "early concern" and "praised card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

OTOLARYNGOLOGY-HEAD AND NECK SURGERY

FACIAL PLASTIC AND RECONSTRUCTIVE SURGERY

I. Educational Purpose

To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of Head and neck disorders.

II. Principal Teaching Methods

A. The residents will be working under direct faculty supervision at all times in the clinic and in the operating room. History and physical examination will be completed as directed and the resident will be expected to provide interpretations of audiologic, laboratory, and radiographic examinations. A synthesis of the available data into a relevant differential diagnosis and treatment plan will be expected.

B. Otolaryngology-Head & Neck Surgery sees clinic Monday – Thursday and operates Monday, Thursday and Friday. Rotator's time will be divided between clinic and the operating room in an equitable fashion.

III. Medical Knowledge

A. The residents will be expected to learn the clinical etiology, presentation, evaluation and treatment for the following medical problems:

1. Hearing loss
2. Otalgia
3. Hoarseness
4. Vertigo
5. Sore Throat
6. Neck mass
7. Dysphagia
8. Head and neck trauma
9. Facial Paralysis
10. Facial cosmetic deformities
11. Recurrent sinusitis
12. Epistaxis

IV. Patient Care

A. Interns, residents and students will be expected to accomplish the following:

1. Learn how to perform a physical examination of the head and neck,

including learning the use of the flexible fiberoptic laryngoscope and the operating microscope.

2. Learn the differential diagnoses and treatment of common otolaryngologic complaints.

3. Learn how to interpret a basic hearing test.

4. Understand the scope of modern Otolaryngology-Head & Neck Surgery and Facial Plastic and Reconstructive Surgery.

V. Practice Based Learning and Improvement

A. The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives.

1. The resident should use feedback and self-evaluation in order to improve performance.

2. The resident should read the required material and articles provided to enhance learning.

3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with head and neck disease.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient problems to the staff in a timely fashion.

VII. Professionalism

A. The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. The resident should improve in the utilization of and communication with many health services and professionals such as the audiologist, speech therapist, nurse clinician, ophthalmologist, physical therapist, surgeon, and radiologist.

B. The resident should improve in the use of cost effective medicine.

C. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

D. The resident will assist in development of systems' improvement if problems are identified

IX. Educational Materials

Textbook for the course is currently *Essentials of Otolaryngology,* Fourth Edition, Editor Frank Lucente and Gady Har-El, Copyright 2003. The textbook is supplemented by a 50-page handout outlining the significant disease processes and examination with which the rotators should be familiar. Additional reading when relevant will be directed from major textbooks and from current journals.

X. Evaluation

A. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to otolaryngology. The residents will be counseled face-to-face prior to departing the service regarding their performance.

B. Program Evaluation

1. The residents will fill out an evaluation of the otolaryngology rotation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in otolaryngology are welcome at any time.

XI. Feedback

The resident should receive frequent (generally daily) feedback in regards to his or her performance during the otolaryngology rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the otolaryngology rotation.

PHYSICAL MEDICINE AND REHABILITATION

I. Educational Purpose

To give the residents formal intensive instruction, clinical experience, and the opportunity to acquire expertise in the evaluation and management of physical medicine and rehabilitation disorders.

II. Principal Teaching Methods

A. The resident will receive instruction through conferences by Texas Tech physicians, outside speakers and the Physical Therapy department.

B. The resident will obtain insight in physical medicine and rehabilitation through cases seen in the clinics and inpatient (ICU and ward) services.

C. A 2-4 week rotation in Physical Medicine and Rehabilitation will be available which can be arranged outside of Texas Tech. The resident will learn physical medicine and rehabilitation through attending clinics and observing inpatients at local rehabilitation hospitals under the supervision of physical medicine physicians.

III. Patient Care

A. Objectives
These objectives will be taught in relation to specific patients whenever possible in the clinic or on the consult service. Otherwise they will be discussed in the didactic sessions.

1. Learn the differences between impairment, disability, and handicap.

2. Learn how to diagnose and manage the common musculoskeletal disorders, including fibromyalgia, myofascial pain, repetitive motion disorders, and overuse syndromes.

3. Learn to recognize the complications of prolonged bed rest (contractures, pressure sores, deep venous thrombosis, osteoporosis, muscular deconditioning, etc.

4. Describe various physical medicine treatment modalities, including diathermy, ultrasound, electrical stimulation, and others.

5. Learn various types of therapeutic exercises.

6. Describe the health care team for rehabilitative medicine and roles of allied health professional.

7. Know when to use the various assistive devices that may reduce disability including wheelchairs, prosthetics, orthotics, and others.

8. Know the principles of evaluation and management of chronic pain.

9. Know the methods for minimizing long-term disability from acute illness (for example, prophylaxis against DVT, bedsores, contractures).

10. Assess the effects of impairment on a patient's daily function.

11. Know the principles of evaluation and management of common sport injuries.

B. Evaluation of Patient Care
The resident will be evaluated using the following criteria:

1. Completeness and accuracy of medical interviews and physical examinations.

2. Thoroughness of the review of the available medical data on each patient.

3. Performance of appropriate maneuvers and procedures on patients.

4. Accuracy and thoroughness of patient assessments.

5. Appropriateness of diagnostic and therapeutic decisions.

6. Soundness of medical judgment.

7. Consideration of patient preferences in making therapeutic decisions.

8. Completeness of medical charting.

IV. Medical Knowledge

A. Objectives
These objectives will be taught through the didactic sessions and at bedside teaching as they relate to specific patients in the clinic and on the consult service.

1. Learn the differences between impairment, disability, and handicap.

2. Learn how to diagnose and manage the common musculoskeletal disorders, including fibromyalgia, myofascial pain, repetitive motion disorders, and overuse syndromes.

3. Learn to recognize the complications of prolonged bed rest (contractures, pressure sores, deep venous thrombosis, osteoporosis, muscular deconditioning, etc.
4. Describe various physical medicine treatment modalities, including diathermy, ultrasound, electrical stimulation, and others.

5. Learn various types of therapeutic exercises.

6. Describe the health care team for rehabilitative medicine and roles of allied health professional.

7. Know when to use the various assistive devices that may reduce disability including wheelchairs, prosthetics, orthotics, and others.

8. Know the principles of evaluation and management of chronic pain.

9. Know the methods for minimizing long-term disability from acute illness (for example, prophylaxis against DVT, bedsores, contractures).

10. Assess the effects of impairment on a patient's daily function.

11. Know the principles of evaluation and management of common sport injuries.

B. Evaluation of Medical Knowledge
The resident's Medical knowledge of Physical Medicine & Rehabilitation will be assessed by the following:

1. The resident's ability to answer directed questions and to participate in the didactic sessions.

2. The resident's presentation of assigned short topics. These will be examined for their completeness, accuracy, organization, and the resident's understanding of the topic.

3. The resident's ability to apply the information learned in the didactic sessions to the patient care setting.

4. The resident's interest level in learning.

V. Practice Based Learning Improvement

The residents performance will be evaluated on his/her willingness and ability to obtain the following objectives.

A. Objectives
1. The residents should use feedback and self-evaluation in order to improve

performance.

2. The resident should read the required material and articles provided to enhance learning.
3. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

VI. Interpersonal and Communication Skills

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should learn when to call a subspecialist for evaluation and management of a patient with rehabilitation disorder.

2. The resident should be able to clearly present the consultation cases to the staff in an organized and thorough manner.

3. The resident must be able to establish a rapport with the patients and listen to the patient's complaints to promote the patient's welfare.

4. The resident should provide effective education and counseling for patients.

5. The resident must write organized and legible notes.

6. The resident must communicate any patient's problems to the staff in a timely fashion.

VII. Professionalism

A. Objectives & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. Objective & Evaluation
The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services and professionals such as the nutritionist, the nurse clinician, podiatrist, ophthalmologist, physical therapist surgeon, and nuclear medicine specialist.

2. The resident should improve in the use of cost effective medicine.

3. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

4. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Material

A. Suggested Reading:
Physical Medicine and Rehabilitation. Garrison, 2003

X. Evaluation

A. Resident Evaluation

1. The faculty will fill out the standard evaluation form using the criteria for evaluations as delineated above to grade the resident in each of the six competencies as related to Physical Medicine and Rehabilitation.

B. Program Evaluation

1. The resident will fill out an evaluation of the Physical Medicine and Rehabilitation at the end of the month.

2. Any constructive criticism, improvements, or suggestions to further enhance the training in Physical Medicine and Rehabilitation are welcome at any time.

XI. Feedback

A. The resident should receive frequent (generally daily) feedback in regards to his or her performance during the Physical Medicine & Rehabilitation rotation. The resident will be informed about the results of the evaluation process, and input will be requested from the resident in regards to his or her evaluation of the rheumatology rotation.

B. The faculty is encouraged to use the "early concern" and "praise card" throughout the rotation. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

PRACTICED BASED LEARNING AND IMPROVEMENT

MEDICAL INFORMATION SCIENCES ANDASSESSMENT OF MEDICAL LITERATURE

I. Educational Purpose

To give the residents formal instruction and the opportunity to acquire expertise in epidemiology, bibliography retrieval and assessment of medical literature.

II. Principal Teaching Methods

A. The resident will receive instruction through conferences by Texas Tech physicians and outside speakers in epidemiology, bibliography retrieval and assessment of medical literature.

B. The resident will also obtain insight in epidemiology, bibliographic retrieval and assessment of medical literature through articles discussed with staff on their rotations.

C. The resident will gain expertise in epidemiology, bibliographic retrieval and assessment of medical literature during their experiences in research and through the conferences they will give.

III. Knowledge Objectives

A. The resident will learn how bias and change affect the accuracy of observations on individual patients.

B. The resident should be stimulated to continue to use the medical literature for gaining further medical knowledge and self- improvement.

C. The resident will learn how to assess the validity of original research concerning diagnosis, prognosis, treatment and prevention.

D. The resident will learn the strengths and weaknesses of randomized clinical trials, case-control studies, cohort studies (retrospective, prospective) and meta-analysis.

E. The resident will be able to judge the validity of colleagues' synthesis of clinical evidence such as review articles, continuing medical education courses, or consultant advice.

F. The resident will learn the meaning, uses, and limitations of statistical power, P values and confidence intervals, relative risk, attributable risk, and "number

needed to treat".

G. The resident should be able to describe how to estimate the pretest probability of a disease and how to use Bayes' theorem to estimate post-test probability.

H. The resident should be able to define and use sensitivity specificity, and likelihood ratio of diagnostic information.

I. The resident should know and be able to detect potential biases in estimates of sensitivity and specificity.

J. The resident should understand the value of decision trees and expected value of decision-making.

K. The resident should understand and utilize sensitivity analysis and cost-effectiveness analysis.

L. The resident should be stimulated to continue to use the medical literature for gaining further medical knowledge and self- improvement.

M. The resident will become familiar with library systems and data based retrieval methods

IV. Assessment and Communication Skills

A. The resident should gain insight and appreciation of the uses for clinical epidemiology and critical assessment of medical literature.

B. The resident should be able to assess the validity of published evidence for themselves.

C. The resident should improve in the use and communications with many health services and professionals.

V. Ethics

A. The resident should use feedback and self-evaluation in order to improve performance.

B. The resident should learn when to call the ethics committee for end of life issues.

C. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

D. The resident must always consider the needs of patients, families, colleagues, and support staff.

E. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

F. The resident must be responsible and reliable at all times.

G. The resident must maintain a professional appearance at all times.

H. The resident should improve in the use of cost effective medicine.

VI. Educational Materials

Biostatistics in Clinical Medicine. 3rd Ed. Ingelfinger, Mosteller 1994**.**

VII. Feedback

Each resident will receive frequent feedback regarding his or her performance in all areas. Among more valuable examples are feedback given by attending staff in clinics and inpatient services, monthly written evaluation of attending staff, comments and lectures.

PATIENT CARE

I. Educational Purpose

During internal medicine training at Texas Tech University Health Sciences Center at El Paso and Thomason Hospital practiced based learning goes on daily in patient care and education, teaching rounds, morning report, clinics, outpatient services, chart reviews, informal talks, review of charts by Quality Resource Management and Quality Improvement Services. The residents will also be required each year to review all of their continuity patient charts for quality of care. The purpose is to improve the quality of medical care given by the resident through many modalities such as mentoring, self-assessment, 360°-evaluations, and structured conferences.

II. Principal Teaching Methods

A. The Internal Medicine residency program strives to develop the following lifelong learning habits (learning never ends). Residents will learn the ability to understand the patient's health needs, the needs of their families, respecting the patient's confidentiality, improvement of the patient care skills, appropriate inpatient and outpatient care, need for keeping up with the literature, avoiding inappropriate tests and consults, avoiding unnecessary or risky procedures which are of marginal or no benefit to the patient. The costs of doing or not doing certain tests, procedures, unnecessarily short/long hospital stays should be considered.

B. The residents will have the opportunity to improve their interview techniques, physical examination skills, clinical assessments, proper use of lab tests and personnel, recording of differential diagnosis and plan of management. They will also be taught good bedside manners, proper record keeping (time, procedure notes, consults), and timeliness.

C. They will learn appropriateness, inappropriateness, benefits, and risks of various exams, tests, and procedures. The appropriate methods for obtaining proper consents, writing do not resuscitate notes, proper process for transfer to other patient care facilities, and documentation of use of restraints will be taught.

D. During this month rotation each year the residents will review each outpatient record in their continuity clinic panel and fill in a chart which documents the completeness of their primary care and preventative medicine procedures ordered for each patient.

III. Knowledge & Patient Care Objectives

A. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems.

B. The resident will assist in development of systems' improvement if problems are identified.

C. Procedures

1. During the three years of Internal Medicine training, residents will have ample opportunity to learn about indications, contraindications, complications, and interpretation of the following procedures and tests: intravenous lines, central lines, lumbar punctures, bone marrow aspiration and bone marrow biopsies, paracentesis, thoracentesis, foley catheters, nasogastric tubes, arterial blood gases, plain x-rays, contrast radiography, ultra sound, CAT-scans, and MRI scans.

2. More specialized procedures or additional procedures will be taught/practiced/interpreted in some particular rotations or electives. Examples include: Swan-ganz catheterization in ICU/CCU, flexible sigmoidoscopy, esophagogastroduodenoscopy in gastroenterology, etc.

D. Practice Skills

1. The internal medicine residents will be evaluated continually by supervising attending staff and senior residents as well as the consultants, nursing, and QRM personnel. The following will be assessed, deficiencies identified, and means of improvement will be pointed out:

   a. Histories and physicals/bedside manners

   b. Politeness, respect to the patient/patient confidentiality

   c. Assessment of patient health

   d Development of a management plan

   e. Need for admission

   f. Need for continued care

   g. Discharge planning

   h. Follow up care

   i. Purpose and use of supporting staff, lab facilities, nursing home, and hospice care

j. Cost effectiveness, usefulness, limitations, benefits, and alternatives of invasive or non-invasive procedures

IV. Communication and Documentation Skills

A. The resident should improve in the utilization of and communication with many health services and professionals.

B. The resident must be able to establish a rapport with the patients and listens to the patient's complaints to promote the patient's welfare.

C. The resident should provide effective education and counseling for patients.

D. The resident must be able to effectively communicate with colleagues and support staff.

E. The resident must write organized and legible notes.

F. The resident must communicate any patient problems to the staff in a timely fashion.

V. Ethics

A. The resident should use feedback and self-evaluation in order to improve performance.

B. The resident should learn when to call the ethics committee for end of life issues.

C. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

D. The resident must always consider the needs of patients, families, colleagues, and support staff.

E. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

F. The resident must be responsible and reliable at all times.

G. The resident must maintain a professional appearance at all times.

VI. Educational Material

During the ward, ICU/CCU or outpatient experience, didactic teaching, teaching at bedside, attending physician rounds, consultations, morning report and conferences are

the major ways of improving the quality of care provided. The internal medicine staff, QRM team, Thomason Hospital and Texas Tech University play a major role in providing a teaching environment.

VII. Evaluation

A. This is an ongoing process, which starts at the beginning of residency and continues through graduation. The major means of evaluation are constant evaluation of quality of care by attending staff and supporting staff.

B. Practiced based medicine and improvement goals will be discussed at the residents' meetings with their advisors and the program director. The residents will be expected to improve their abilities from year to year. The residents' performance on their continuity clinic patient preventative medicine practices will be evaluated annually and methods for improvement discussed with them.

C. Identifiable problems

1. Once an actual or potential problem has been identified a determination will be made as to whether it will be assessed prospectively, concurrently or retrospectively. Possible areas which will be evaluated for problems include:

   a. All readmissions within 30 days of prior admission and ending in death
   b. Abnormal lab studies not addressed by residents
   c. Patients refusing treatment/leaving AMA
   d. Hospital induced events like drug reactions or transfusion reactions and patient injuries
   e. Deaths
   f. Cardiac or respiratory arrests while patient is hospitalized for other reasons
   g. Complications of procedures
   h. Response to consultation
   i. Sub-therapeutic/toxic dosing of medications
   j. Inappropriate medication prescriptions
   k. Patient care (histories and physicals, tests, procedures, progress notes, consultations) and interpersonal skills (peers, supporting staff, supervisors).

2. Appropriate action will be implemented to eliminate or reduce the identified issue. These include:

   a. medical staff educational programs
   b. implementation of new/revised policy or procedure
   c. staffing changes

d. equipment or facility changes
e. practitioner counseling/guidance as needed
f. peer action.

D. M & M Conference

M&M conferences are held at least quarterly with faculty and house staff in attendance. An appropriate case(s) is/are chosen which has/have potential learning objectives and presented by the house staff. The house staff will be evaluated on their presentation and their presentation skills of the M & M conference. The house staff will learn through examples non-optimal patient outcomes due to known complications, potential errors, or systems problems. The root cause will be identified and possible actions to avoid future events will be discussed.

E. Q A and Risk Management Talks

Quality assessment meetings are held at least quarterly with faculty and house staff in attendance. Coordinators maintain minutes. Reports from various committees (e.g. tissue and transfusion, pharmacy and therapeutics, infection control and medical records) are reviewed and recommendations made.

VIII. Feedback

Each resident will receive frequent feedback regarding his or her performance in all areas. Among more valuable examples are feedback given by attending staff in clinics and inpatient services, monthly written evaluation of attending staff, comments and lectures. Concurrent and retrospective review of medical records are conducted on a regular basis and focused review of individual cases, identified patterns or trends are also done from time to time.

PROFESSIONALISM

I. Educational Purpose

To give the residents formal intensive instruction and clinical experience in making ethical decisions as related to patient care and to understand and practice in a professional manner.

II. Principal Teaching Methods

A. Instruction is provided by a core series of lectures through the year.

B. During the intensive care rotation, issues of ethics that come up serve as opportunities to instruct and review the knowledge base in ethics.

C. The residents are encouraged to read the medical ethics section of their medicine textbook.

III. Knowledge Objectives

A. The resident should read the required material and articles provided to enhance learning.

B. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems.

C. The resident should use the medical literature search tools in the library to find appropriate articles related to interesting cases.

D. The resident will assist in development of systems' improvement if problems are identified.

E. The resident will learn the prognostic side of medical ethics.

1. Definitions and concepts of medical futility

2. The persistent vegetative state

3. Post-anoxic brain injury

4. APACHE data on prognosis versus number and duration of organ failures

5. Medical and ethical issues related to the feasibility of domiciliary care for seriously ill persons, issues of medical and social suitability for hospice care

F. Residents will learn the social side of medical ethics.

1. The extent and limits of the patient's right to self-determination

2. Informed Consent

3. The right to refuse treatment, limitations on that right in the case of children, ethical and legal implications in the case of the patient leaving "against medical advice".

4. Religious beliefs as circumscribers of medical care; Jehovah's Witnesses and Christian Scientists.

5. The ethical and legal basis for the family's right to "substituted judgment," for a patient unable to decide for himself.

6. Ethical and legal issues relating to medical decisions to be made for permanently incompetent persons.

7. Ethical and legal issues related to abuse of patients by their friends or relatives.

G. The resident will learn the limits to care.

1. Limits to care as posted in "living wills" "do not resuscitate."

2. The ethical and legal basis for decision to withdraw life support

3. The legal definition of brain death.

H. The resident will learn about conflict of interest.

1. Ethical problems related to temptations

IV. Communication and Documentation Skills

A. The resident must be able to establish a rapport with the patients and listen to the patient’s complaints to promote the patient’s welfare.

B. The resident should provide effective education and counseling for patients.

C. The resident must write organized and legible notes.

D. The resident must communicate any patient problems to the staff in a timely fashion.

E. The resident should improve in the utilization of and communication with many health services and professionals.

V. Ethics

A. The resident should use feedback and self-evaluation in order to improve performance.

B. The resident should learn when to call the ethics committee for end of life issues.

C. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

D. The resident must always consider the needs of patients, families, colleagues, and support staff.

E. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

F. The resident must be responsible and reliable at all times.

G. The resident must maintain a professional appearance at all times.

H. The resident should improve in the use of cost effective medicine.

VI. Educational Materials

A. Mandatory Reading
  1. Sections on Ethics, Decision Making, and Economic Issues in Harrison's Principle of Internal Medicine, McGraw-Hill publisher Chapters 1-4.

B. Suggested Reading
  V. The American College of Physicians Ethics Manual
  VI. On Doctoring edited by R. Reynolds and J. Stone. Simon & Schuster 1995.
  VII. My Own Country: A Doctor's Story. By A. Verghese. Vintage Publisher 1995.

VII. Evaluation

A. On each rotation, the resident's compassion and integrity and ethical approach to medicine are part of the evaluation.

B. The faculty advisor plays an important role in using resident evaluations from other rotations to see how the resident is developing as an ethical person.

C. Annual meetings with the Program Director at the time of the annual resident evaluation provide an opportunity to emphasize and reinforce the resident's development as an ethical and compassionate physician with sound knowledge of medical ethics.

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VIII. Feedback

The resident should receive frequent feedback in regards to his or her performance during the rotation in regards to the ethical and professional approach to medical care. The resident will be informed about the results of the evaluation process and input will be requested from the resident in regards to his or her evaluation.

PSYCHIATRY

I. Description of Rotation

This four-month assignment is a primary care experience. The resident functions at the intern level on a team with other senior residents and attending faculty. Rotations will include various medicine outpatient clinics as well as the medicine consultation service. Direct patient care responsibility, augmented by a thorough didactic curriculum, is the basis of this rotation. All cases are individually staffed on site by attending faculty. This rotation may be substituted with a Family Practice or Pediatrics rotation. Periodic evaluations of resident performance by Internal Medicine faculty are forwarded to the Residency Training Director.

II. Educational Objectives:

A. Knowledge Objectives:
By the end of the Internal Medicine (or other primary care) rotation the resident will demonstrate knowledge of:

1. Medical illnesses commonly seen in primary care settings, their treatment, and their impact on the psychiatric population.

2. The common radiological and laboratory examinations and their interpretations.

3. Significant medical literature that supports evidence-based medicine as it applies to the patient that he/she cares for on the Internal Medicine Service.

4. The clinical data that is necessary to recognize and assess risks, particularly as it pertains to determining whether inpatient or outpatient care is indicated.

III. Skills Objectives:

A. By the end of the Internal Medicine Rotation, the resident will demonstrate the ability to:

1. Perform an adequate medical diagnostic interview.

2. Obtain a clinically relevant medical history.

3. Perform an adequate physical examination on his/her patients.

4. Diagnose common medical problems as often seen in primary care settings.

5. Participate in the consultation process for patients referred from non-medical services for diagnosis and treatment of primary care problems.

6. Present cases to the general medical or subspecialty faculty attending the clinic or consultation service.

IV. Attitude Objectives:

A. By the end of the Internal Medicine Rotation or Primary Care Rotation rate the following attitudes:

1. Respect for medically ill patients and their families.

2. Respect for the role of the team of professionals who care for medically ill patients.

3. Understands the importance and impact of the multiple systems that impact on the medically ill patient.

4. Demonstrates professionalism and ethical behavior in the practice of medicine.

5. An appreciation of the importance of self-directed learning.

V. Assessment Tools

A. The PGY-I internal medicine resident will be assessed by:

1. Written evaluations of clinical care by assigned Internal Medicine faculty.

2. Performance during clinical presentations to assigned faculty and other team members.

3. Level of participation in teaching rounds and didactic presentations.

VI. Educational Material

A. Essential Reading:
Each attending on the consultation service will assist the resident with literature and selected references which may be helpful in managing specific patient related problems encountered during the rotation. There are a few key references that will help augment the resident's experience with outpatient and consultation service medically ill patients.

B. Reference material including medical texts concerning general medicine consultation and preoperative evaluation are available in the Gallo Library of the Health Sciences.

C. Residents are encouraged to peruse these references for additional guidelines for the evaluation of patients on the outpatient and consultation services.

1. Gross, RJ, Caputo GM, Eds. *Kammerer and Gross' Medical Consultation: The Internist on Surgical, Obstetric, and Psychiatric Services*, 3rd Edition. Williams and Williams. Baltimore, 1998.
2. Goldman, L, Lee T, Rudd P. Ten commandments for effective consultations. *Arch Intern Med* 1983; 143:1753-1755.

VII. Evaluation

All residents in the Department of Internal Medicine receive formal evaluations on standardized evaluation forms. Evaluation and feedback will occur during the rotation, which will generally be in the PG-2 year allowing sufficient time and opportunity for further education and improvement during the remainder of that year and in the PG-3 year, either on ward rotations or on a second consult service rotation.

VIII. Feedback

Residents will receive feedback from the attending physician during the consultation rotation. Review is especially encouraged at the midpoint and at the end of the rotation, when the resident and attending should schedule a face-to-face discussion of the learning experience on the consultation service.

IX. Resources

General Medicine consultation is frequently requested from Psychiatry, Orthopedics, General Surgery, and OB/GYN. Patients from these services provide the Internal Medicine resident with a broad experience in delivering consultation concerning a vast array of problems. The support services from the Departments of Pathology, Radiology and the Gallo Library of the Health Sciences are very helpful in the evaluation of these patients. Texas Tech Outpatient Internal Medicine Clinics have a full array of subspecialty clinics that augment the general medicine clinic population that the resident is exposed to.

RADIOLOGY

I. Educational Purpose

To give residents formal, informal instruction and clinical experience in the evaluation and clinical correlation of the results of various imaging techniques utilized in a modern radiology department.

II Principal Teaching Methods

A. The resident will receive individual instruction by the radiology attendings at the Radiology department of Thomason hospital.

B. The resident is expected to report to the Radiology department from 08:00 hours to16:00 hours or later.

C. The resident will observe the radiologist interpreting the morning images and/or performing the morning fluoroscopic procedures. The resident is also expected to observe special procedures, diagnostic ultrasound, mammography, and nuclear medicine procedures performed in the department.

D. The resident should also spend time with various self instructional teaching material in the department.

E. The resident is required to be present at all pertinent radiological conferences during their elective.

F. The resident is encouraged to discuss with the radiologist any interesting material or cases. Although the best way to learn radiology is by discussion with the radiologist at the workstation, the resident is provided with opportunities and appropriate materials to enhance his/her learning achievement.

III. Medical Knowledge

A. Residents will increase their fund of knowledge concerning:

1. The ability to understand the principles of radiological studies
2. Utilization of imaging techniques in the acutely injured or ill patient
3. Effective evaluation of acute chest and abdominal conditions
4. Therapeutic and diagnostic interventions with imaged guided procedures
5. Basics aspects of medical radiation exposure and protection

6. Physiologic principles of nuclear medicine and functional MRI

7. Newer neuroimaging techniques for cerebral diseases and conditions

8. Their awareness and use of the data base that exists in radiology

IV. Patient Care

A. The residents will increase their skills in patient care by:

1. Recognizing appropriateness of various imaging procedures

2. Correlating imaging procedures with clinical findings

3. Appreciate concerns with techniques for performing imaging studies

4. Recognizing abnormal radiological findings of the commonly-used imaging studies

5. Proper interpretation of the imaging consultation report

V. Practice Based Learning Improvement

A. The residents should be able to:

1. Use feedback and self-evaluation in order to improve performance

2. Read the required material and articles provided to enhance learning

3. Use the medical literature search tools to find appropriate articles related to interesting cases.

4. Develop capabilities in interpreting results of basic radiogical studies.

VI. Interpersonal and Communication Skills

A. The residents should gain skills in:

1. The proper role of radiological consultation

2. Obtaining appropriate clinical information needed to complete an imaging study

3. Addressing patients' concerns about radiation and imaging procedures

4. Understanding technical limitations of imaging procedures in certain settings

VII. Professionalism

A. The residents should demonstrate the following:

1. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

2. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

3. The resident must be responsible and reliable at all times.

4. The resident must always consider the needs of patients, families, colleagues, and support staff.

5. The resident must maintain a professional appearance at all times.

VIII. Systems Based Learning

A. The resident will be evaluated on his/her ability to demonstrate the following objectives:

1. The resident should improve in the utilization of and communication with many health services professionals; such as technologists, sonographers and other support staff.

2. The resident should improve in the prudent, cost-effective and judicious use of imaging studies and other diagnostic testing by recognizing the value and limitations of various imaging procedures.

3. The resident should develop a systematic approach to utilize available imaging techniques to work-up the patients with various clinical findings.

4. The resident will assist in determining the root cause of any error which is identified and methods for avoiding such problems in the future.

5. The resident will assist in development of systems' improvement if problems are identified.

IX. Educational Materials

A. Web resources:
  1. Learning Radiology.com

B. Lectures:
  1. Fundamentals of chest roentgenology
  2. Differential diagnoses in chest disease
  3. The ABC of heart disease
  4. Differential diagnoses in cardiac disease
  5. 22 “must see” Diagnostic Images for Medical Students
  6. Plain film of the abdomen
  7. Approach to Small Bowel Disease
  8. Differential Diagnoses in GI Disease
  9. Differential Diagnoses in MSK Disease
  10. CT is us.com

C. Teaching Files
  1. Chest
  2. Liver
  3. Pancreas
  4. Trauma

D. Texts
  1. The Emergency Patient. Charles S. Langston, Lucy Frank Squire. Saunders, 1975
  2. Emergency Radiology. T. Keats. Mosby, 1988 2nd Edition
  3. Radiology of the Emergency Patient: An Atlas Approach. Edited by Edward I. Greenbaum. New York: Wiley, c1982.
  4. Videodisc: Head and neck, GI, GU Ultrasound files

X. Evaluation

A. The performance of residents will be evaluated in the following manner:

1. Attendance at the required morning X-ray film review

2. Assigned case presentations and conference presentations will be evaluated

3. Ability to interpret results of commonly used imaging studies

4. Mid-rotation evaluation session between the resident and the consult service attending for that month

XI. Feedback

Residents will receive feedback with respect to achieving the desired level of proficiency. Ways in which they can enhance their performance will be discussed when the desired level of proficiency has not been achieved. Evaluation and feedback will occur during the rotation. These rotations will be in the PGII year or in the PGIII year. A formal evaluation and verbal discussion with the resident is to be done at the end of the rotation.

SYSTEMS BASED PRACTICE

LEGAL MEDICINE

I. Educational Purpose

Residents will learn to identify factors which precipitate medical malpractice lawsuits. Residents will learn risk management measures which will minimize the risk of being sued. The resident will understand the significance of documentation in relation to its effect on medical malpractice. The resident will know what to expect should a malpractice lawsuit be brought against him/her.

II. Principal Teaching Methods

A. Lectures, conferences, seminars

B. Case studies

C. Faculty instruction in clinical settings

III. Knowledge Objectives

A. The resident should provide effective education and counseling for patients.

B. The resident will become proficient at obtaining 'Informed Consent'.

C. They will learn to avoid actions which might lead to anger, distrust, or, inappropriate expectations from the patient.

D. The resident will learn an appreciation for our judicious system and defense attorneys.

E. Residents will learn to recognize factors that might serve to precipitate a malpractice lawsuit.

F. Residents will identify such factors and, when possible, prevent or minimize their effects.

G. The resident will understand the various parties involved in a lawsuit.

H. The resident will learn the proper steps to take when notified of a potential lawsuit.

I. The resident will learn the various components of pre-trial, trial and post-trial events.

J. The resident will learn proper preparation for himself, assistance for his attorney and provide, when appropriate, suggestions for defense experts, literature, etc.

K. The residents will learn appropriate conduct during depositions and in the courtroom.

IV. Communication and Documentation Skills

A. Demonstrate open communication and honesty with patients.

B. The resident should improve in the utilization of and communication with many health services and professionals.

C. The resident will learn respect for the patient and learn to communicate in a manner which the patient can fully comprehend.

D. The resident will learn how documentation or the lack thereof can help or adversely affect a malpractice lawsuit.

E. The resident will demonstrate appropriate documentation and will learn inappropriate forms of communication (such as open disagreement in front of the patient or "finger pointing" in the chart).

F. The resident will demonstrate proper documentation by including appropriate details of date and time, the patient's understanding and attitude towards the situation, and what information was given to the patient.

G. The resident should understand that his written word is his best defense in a medical malpractice situation.

V. Ethics

A. The resident will learn proper conduct and empathy towards patients.

B. Residents will develop appropriate relationships between themselves, their patients and staff.

C. The resident must always consider the needs of patients, families, colleagues, and support staff.

D. The resident should continuously develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

E. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

F. The resident must be responsible and reliable at all times.

G. The resident must maintain a professional appearance at all times.

VI. Educational Material

A series of lectures will be provided for the residents. These will include a yearly 7-hour Legal Workshop for Physicians with required attendance as well as bi-annual lectures provided by the defense attorneys for Texas Tech.

VII. Evaluation

Residents will be asked to express their opinions of the lecture series to the Program Director, Assistant Program Director or other faculty. Attendings are asked on a monthly basis to evaluate residents rotating on their team in such areas as Patient Relationships and Recordkeeping. M & M Conferences will be held on a regular basis to point out problems in documentation, inappropriate actions or treatment, etc.

VIII. Feedback

Attendance will be taken at each lecture. The resident will be notified on a monthly basis if attendance is satisfactory. Inappropriate conduct, witnessed by attendings during the year, will be documented and will then be brought to the attention of the Program Director, Assistant Program Director and Resident Evaluation Committee. Appropriate **action will be taken by this committee.**

CASE MANAGEMENT, BILLING, CODING, AND REIMBURSEMENT

I. Educational Purpose

To train the resident in current managed care systems with regard to DRG coding, reimbursements, length of stay issues, and denials.

II. Principal Teaching Methods

A. In both the first and third years, the residents will meet with a case manager at Thomason hospital for a 90 minute small group presentation which gives an overview of inpatient practices.

B. During the first and third years, the resident will attend one day of case management rounds on the ward, one day of high-dollar patient rounds, and at least one day of ICU case management rounds.

C. The resident will meet with the personnel in the outpatient billing department every Friday afternoon during the first year Systems Based Practice rotation and during the 2nd or 3rd year when on endocrinology to learn outpatient billings and coding practices.

III. Knowledge Objectives

A. Understand the meaning of DRG and CPT coding.

B. Become familiar with the current managed care systems.

C. Become familiar with the methods of reimbursement in the inpatient and outpatient settings.

D. Understand Length of Stay and how it ties to reimbursement issues.

E. Learn common reasons for denials and what can be done to prevent them.

F. Understand how improved documentation impacts on reimbursement.

G. The resident should read the required material and articles provided to enhance learning.

H. The resident will improve in using case managers and social workers to facilitate discharge planning.

IV. Communication and Documentation Skills

A. The resident must be able to establish a rapport with the patients and listen to the patient's complaints to promote the patient's welfare.

B. The resident should provide effective education and counseling for patients.

C. The resident must communicate any patient problems to the staff in a timely fashion.

D. The resident will learn to write organized and legible notes.

E. The resident will learn to improve documentation to increase reimbursement.

F. The resident should improve in the utilization of and communication with many health services and professionals.

V. Ethics

A. The resident should use feedback and self-evaluation in order to improve performance.

B. The resident should put into practice the suggested changes in order to improve coding and billing of services.

C. The resident should continue to develop his/her ethical behavior and the humanistic qualities of respect, compassion, integrity, and honesty.

D. The resident must always consider the needs of patients, families, colleagues, and support staff.

E. The resident must be willing to acknowledge errors and determine how to avoid future similar mistakes.

F. The resident must be responsible and reliable at all times.

G. The resident must maintain a professional appearance at all times.

H. The resident should improve in the use of cost effective medicine.

VI. Evaluation

Residents will be asked to complete a written evaluation of their time spent with the case manager and the coders. Attendings are asked, on a monthly basis, to evaluate residents rotating on their teams in systems based practice.