DENVER VATERANS AFFAIRS MEDICAL CENTER
AMBULATORY CARE BLOCK ROTATION CURRICULUM

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1. Educational Purpose and Goals

Most practicing internists will spend the majority of their practice time in the outpatient or ambulatory care setting despite a wide variety of subspecialty and other practice opportunities. The Ambulatory Care Block rotation allows residents the opportunity to develop and refine their skills for initial evaluation and follow-up care in a wide variety of outpatient clinic settings. The residents will see patients in a variety of medicine subspecialty clinics as well as surgical subspecialty clinics, dermatology, the emergency department and more. The residents will gain experience with evaluating, diagnosing and treating a broad spectrum of medical issues and with the process of care in the ambulatory care setting.

2. Principle Teaching Methods

a. Supervised Direct Patient Care

(1) Residents will see patients primarily in the clinics noted above; each patient will be staffed by the attending faculty for the clinic. The population of patients includes all veterans eligible for care at the Denver VAMC.

(2) Each clinic will allow residents to evaluate patients with referral issues specific for that clinic although a portion of the ambulatory care rotation will be spent in the residents continuity clinic and in general care/triage clinic environments. Several of the clinics provide general care for patients with specific health issues, e.g. Hepatitis clinic, and the residents gain familiarity with the disease specific considerations. Other clinics provide a supervised environment for residents to be involved with procedures important to outpatient internal medicine including cryotherapy and biopsies in dermatology clinic, or arthrocentesis and joint injections and exercise treadmill testing. Also emphasized are time-efficient and cost efficient care in the Ambulatory Care setting.

b. Small Group Discussions/Educational Conferences

(1) Morning repost: Residents attend Ambulatory Morning Report (AMR) each morning from 7:30 a.m. – 8:30 a.m. Evidence Based Medicine (EBM) is emphasized and several educational sessions are held each month on the precepts of EBM. Each resident is asked to lead 2-3 of these sessions each month to try to answer clinical questions based on recent literature. They further develop their medical literature searching skills and critical appraisal skills and apply these to specific clinical questions. Other residents attending AMR contribute to the discussion of each presentation along with 2-3 faculty members.

(2) Friday afternoons are reserved for 2 separate types of educational conferences exclusively for the residents on the Ambulatory Care rotation. A workshop led by Ambulatory Care faculty or the library staff emphasizes interactive discussions on multiple ambulatory care topics including dermatology for the Internist Health Care Maintenance or screening activities, evidence based literature searching skills, neurologic topics and more. The second half of the afternoon is again resident led discussions of common outpatient care issues with special emphasis on time and cost management and efficiency of care/optimal use of resources.

(3) Didactics
Each resident is also asked to present a discussion on an important ambulatory care topic to a group of his/her peers attending the continuity clinic conference at DVAMC. This allows for in depth evaluation of specific outpatient issues and allows the resident to investigate these topics and to enhance their presentation/teaching skills.

(4) Noon conference/core curriculum
Attendance at our core curriculum conferences is required; these are held three times weekly at the University of Colorado Hospital. An array of topics are covered from the major disciplines in internal medicine and are repeated in an 18 month cycle.

3. Educational Content

a. Mix of Diseases
Patients encountered will have a full spectrum of medical conditions as seen routinely at the Denver VAMC. Special emphasis is placed on the clinics that will enhance a resident's ability to provide care in the ambulatory setting including Dermatology, Neurology, Orthopedics, and Rheumatology. Other medical and surgical subspecialties are also included as are occasional experiences in the ED/Walk-in Clinic setting.

b. Patients seen on the Ambulatory Care rotation are veterans eligible for care according to federal regulations.

c. Learning Venues
Multiple outpatient clinic sites are available at the Denver VAMC including groups of rooms on the first floor, outpatient clinics on the 6th floor – south and west and the Emergency Department. Several subspecialties have their own clinics where evaluation and procedures can be done. The Denver VAMC is a full-service tertiary referral center for the mountain states region.

d. Procedures

(1) Procedures that are learned or reinforced during the ambulatory rotation can include, but are not limited to:
(a) Dermatologic cryotherapy
(b) Skin biopsies; shave and punch biopsies
(c) Arthrocentesis
(d) Joint injection
(e) Exercise treadmill testing (EET)
(f) Pulmonary function testing
(g) Vascular assessment, Ankle/ Brachial Index
(h) Incision and Drainage
(i) Pelvic examination
(j) Pap smear
(k) Wet mount

(2) Interpretive skills that can be reinforced on the ambulatory rotation:
(a) Serum electrolytes and routine chemistry
(b) Urinalysis and microscopy of the urine
(c) Liver function tests
(d) Joint fluid evaluation
(e) Interpretation of rheumatologic laboratory results
(f) Interpretation of skin biopsy results
(g) Interpretation of liver biopsy results
(h) Review of pap smear results
(i) Wet mount/vaginal discharge evaluation
(j) Pulmonary function tests

(k) ETT interpretation

(3) Consultative skills: Residents serve as supervised consultants in many of the subspecialty and non medical clinic settings and provide consultative feedback to the referring providers as is appropriate.

e. Ancillary Services

All clinics at the Denver VAMC have appropriate clinical administrative and nursing support to facilitate optimal ambulatory health care. Available in a tertiary care environment is access to consultation from other medical and surgical subspecialties and other outside specialties. Also available are case managers, social workers, physical therapy and other staff. Trainees in this outpatient environment gain insight on the importance of team leading and interdisciplinary care provision.

f. Structure of the Rotation

(1) Each day starts with AMR from 7:30 am – 8:30 am. Residents are then scheduled to attend separate clinics in the AM and the PM each day and to attend the noon conference or Medical Grand Rounds over the lunch hour. Further educational conferences are held each Friday afternoon as previously outlined.

(2) There is no overnight call during this rotation.

4. Principal Ancillary Educational Materials

a. All residents receive an orientation session and an outline including the learning objectives at the start of the rotation.

b. Residents are provided handouts each morning in the AMR to enhance understanding of EBM techniques and the specific topics being critically appraised during the sessions.

c. Residents pursue self directed research and education that allows them to participate in and to lead the educational conferences as previously described. EBM is emphasized.

d. Full service libraries are present at both DVAMC and Denison Library at the University of Colorado Health Sciences Center. 24-hour access to on-line programs and literature is available.

e. Computer-based resources are available at the hospitals to facilitate patient care, education and communication. The following are made available:

(1) Computer-assisted diagnosis and decision support
(2) Drug information including side effect and drug-drug interactions
(3) Electronic Medical Record internet accessibility
(4) Electronic textbooks of medicine
(5) E-mail services
(6) Internet access to medical sites on the World Wide Web
(7) Laboratory and radiology results retrieval
(8) Multimedia procedures training
(9) Patient education materials

f. The Medical Record is totally computerized.

5. Methods of Evaluation

a. Resident Performance

(1) Faculty complete computerized resident evaluation forms. The evaluation is competency-based. The evaluation is shared with the resident, who receives a copy, and is internally reviewed by the residency office. The evaluation is part of the resident file and is incorporated into the semiannual performance review for directed resident feedback.

(2) Residents electronically record completed encounter notes and procedure notes when performed. The supervising physician verifies that the resident understands any procedure's indications, contraindications, complications and interpretation. The attending also provides specific feedback on data-gathering and documentation skills.

b. Program and Faculty Performance
   (1) Upon completion of the rotation, residents complete a service evaluation commenting on the faculty, facilities and service experience. Evaluations are reviewed by the program and attending faculty physicians receive anonymous copies of completed evaluations. Collective evaluations serve as a tool to assess faculty development needs. The Training and evaluation committee reviews results annually.

6. Institutional Resources: Strength and Limitations

a. Strengths
   (1) Faculty: Faculty has won numerous awards for teaching excellence.
   (2) Facilities: The hospital is a modernized institution with state-of-the-are cardiac catheterization lab, a dialysis unit, radiology services and experienced technicians.
   (3) Patients: There is an excellent disease mix and patient panel.

b. Limitations
   (1) Population is largely male, though percentage of female veterans is increasing.

7. Rotation Specific Competency Objectives (PGY1)

a. Patient Care:
   (1) History taking: Residents will collect a thorough history by soliciting patient information and by consulting other sources for information and will synthesize this information for review with attending staff. The interviewing will adapt to time available and be appropriate for each specific clinic. The resident will use verbal and nonverbal techniques and will be cognizant of the emotional aspects of the patient's experience.
   (2) Physical examination: Residents will be able to perform a comprehensive physical exam and will modify the exam as indicated for each individual clinic performing an adequate examination to provide for evaluation and care in the specific clinic setting.
   (3) Charting: Residents will record data in a thorough, systematic manner.
   (4) Procedures: Residents will demonstrate knowledge of: procedural indications, contraindications, necessary equipment, specimen handling, patient after-care, and risk and discomfort minimization. They will participate in informed consent and assist patients with decision making. They will correctly identify the meaning of test results.
   (5) Medical Decision Making: Clinical Judgment and Management Plans. All residents will demonstrate improving skills in assimilating information that they have gathered from the history and physical exam. Residents will be able to identify patient problems and develop a prioritized differential diagnosis. Abnormal findings will be interrelated with altered physiology. They will understand their limitations of knowledge and seek the advice of more advanced clinicians. Residents will begin to develop therapeutic plans that are evidence or consensus based. Residents will establish an orderly succession of testing based on their history and exam findings. Specific organ dysfunction will be anticipated based on known side effects of therapy. Additionally, residents will understand the correct administration of drugs, describe drug-drug interactions and be familiar with expected outcomes.

(6) Patient Counseling:
Residents will be able to describe the rationale for a chosen therapy and will be able to describe medication side effects in lay terms. They will assess patient understanding and provide more information when necessary. Residents will demonstrate the ability to be a patient advocate.

b. Medical Knowledge:
Residents will consistently apply current concepts in the basic sciences to clinical problem solving. They will use information from the literature and other sources including electronic databases. Residents will demonstrate satisfactory knowledge of common medical conditions, sufficient to manage urgent complaints with supervision. Residents must exhibit sufficient content knowledge of common conditions to provide care with minimal supervision by completion of the PGY1 year.

c. Interpersonal and Communication Skills:
Residents will develop and refine their individual style when communicating with patients. They will strive to create ethically sound relationships with patients, the physician team and supporting hospital personnel. They will create effective written communications through accurate, complete and legible notes. They will exhibit listening skills appropriate to patient-centered interviewing and communication. Residents will recognize verbal and nonverbal cues from patients.

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

e. Practice Based Learning and Improvement:
Residents will use hospital and University library resources to critically appraise medical literature and apply evidence to patient care. They will use hand-held computers, desktop PC's and Internet electronic references to support patient care and self-education. They will model these behaviors to assist medical students in their own acquisition of knowledge through technology.

f. Systems Based Practice:
Residents will be sensitive to health care costs while striving to provide quality care. They will begin to effectively coordinate care with other health care professionals as required for patient needs.