

Adolescent Medicine Goals and Objectives  
UCHSC Internal Medicine Residency  
Goals and Objectives

Please refer to the Primary Care (PC) Internal Medicine Overview Curriculum for a complete description of competency-based goals and PGY-based training goals. Below is a summary specific to this PC rotation to better delineate its unique features.

Adolescent Medicine Goals:

1. Gain knowledge of common adolescent health problems and how to diagnose and treat them.
2. Recognize the public health and community health implications of providing care to the adolescent population (or not providing care).
3. Understand the unique legal environment surrounding adolescent health care.
4. Perform a sensitive pelvic exam, and become proficient at microscope identification of common gynecologic complaints.

Adolescent Medicine Objectives:

1. Know the pathophysiology, presentation, and management of common problems in Adolescent Health as above.
2. Develop skills in adolescent specific history and physical exam, specifically interviewing the adolescent, the parent, taking a sexual history.
3. Understand when referral is necessary.
4. Recognize patterns of behavioral risk factors and counsel the adolescent and parent appropriately.

Clinical Experience/Course Description:

Residents will do a month-long rotation that will include outpatient clinics in Adolescent Medicine and inpatient consultation. Clinics will be based at High Street, Urban Peak Homeless Shelter, La Clinica Tepeyac, and Englewood High School. Inpatient consults will be performed at Presbyterian St. Luke's Hospital. Residents will not be expected to take call and will at no time violate work hours rules. They will be expected to attend their regularly scheduled continuity clinics and conferences.

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## 1. Purposes and Educational Value

Adolescence is defined as the psychosocial transition of a child into an independent adult. Adolescents have a unique set of health care issues. The management of these issues encompasses many issues common to the outpatient practice of internal medicine, and with which many residents remain uncomfortable at the end of their training period, including: diagnosis and treatment of sexually transmitted infections (STI's), prescription and management of contraception, effective counseling for risk behavior modification, and diagnosis and management of substance abuse and mental health issues. Internal Medicine physicians will see approximately 8% of all adolescent primary care health visits, and percentage that has doubled in the last 10 years. It is to be anticipated that this percentage will continue to increase as the prevalence of "adult" diseases, like diabetes and hypertension, become more common in the adolescent population.

## 2. Principal Teaching Methods

- a. Residents will encounter adolescent patients in a variety of outpatient settings, including:
  - an adolescent continuity care clinic
  - an adolescent gynecology clinic
  - a homeless shelter for adolescents
  - a school-based clinic for middle and high school aged youth
  - a "Teen Clinic" at a clinic for undocumented workers
  - during outreach to street youth in Denver
- b. Residents will attend 1 hour lectures on common aspects of adolescent medicine during noon conferences and pre-clinic conferences.
- c. Residents will participate in a CD-ROM based standardized patient interview, addressing key skills in interviewing and managing adolescents, in a small group format during the Primary Care Core Lecture series.
- c. Residents will attend 2 hour weekly didactic sessions with the faculty physician during the adolescent medicine rotation. Didactic sessions will address cases seen during the previous week, and patient-based learning cases from the syllabus, with their accompanying review articles.
- d. Evidence-based learning and independent study are expected during the Course. At the end of the course, a 2-page review article on a topic encountered during the rotation is expected. This article will be published in an on-line adolescent medicine newsletter to all other internal medicine residents and General Internal Medicine Faculty.

### 3. Educational Content

- a. The patients encountered will represent common adolescent health issues, which would be expected to be seen in a general internist's office.
- b. The majority of the content will be presented in the ambulatory care setting, during the adolescent rotation. The residents will usually see 1 new patient and 3 to 5 follow up patients with the faculty physician in each half-day.
- c. No ACGME procedures or interpretive skills are learned on this rotation.

### 4. Method of Evaluation

#### a. Residents:

1. A pre- and post-test is administered to each rotating resident. The pre-test is a multiple choice test which is expected to stimulate questions and reading. The post-test consists of question taken from the ABIM MKSAP, version 10.
2. Residents will be evaluated on the composition, thoroughness, and sophistication of the analysis of the literature, of the required 2 page evidence-based review paper.
3. Faculty attending physicians will complete evaluation forms provided by the residency for each resident. The evaluation will be shared with the resident, sent to the residency office, and placed in the resident's file.

#### b. Faculty

Upon completion of the rotation, residents will be asked to complete a service evaluation form commenting on the faculty, facilities, and service experience. These evaluations will be sent to the residency office for review and the attending faculty physician will receive quarterly copies of completed evaluation forms. The Training and Evaluation Committee will review results annually.

### 5. Objectives for the Adolescent Medicine Rotation

The residents will be expected to have an understanding of the following issues, and their evaluation and management:

1. The Adolescent History and Physical
  - a. Age-appropriate screening
  - b. Unique interview and exam points
  - c. Risk-behavior screening
  - d. Consent and Confidentiality issues

- e. Effective counseling techniques for risk-behavior modification
2. Sports and Pre-participation physicals
    - a. Conduct an age-appropriate evidence-based pre-participation evaluation
    - b. Understand absolute and relative contraindications to sports participation
    - c. Identify, evaluate, and manage abnormal blood pressure in adolescents
    - d. Identify, evaluate, and manage heart murmurs
  3. Sexually Transmitted Infections
    - a. The proficient sexual history
    - b. Screen for, diagnose, and treat STI's in adolescents and young adults
    - c. Address screening, diagnosis, and treatment differences for men-who-have-sex-with-men (MSM's)
    - d. Address diagnosis and treatment issues for abnormal Pap smears unique to adolescents
    - e. Effective counseling for risk factor reduction
  4. Prevention of Unwanted Pregnancies
    - a. Components of effective pregnancy prevention programs
    - b. The selection and prescription of effective contraception
    - c. Management of contraceptive side-effects and complications
  5. Dysfunctional Uterine Bleeding
    - a. Normal and abnormal manifestations of the menstrual cycle
    - b. Evaluation and diagnosis of DUB
    - c. Management of DUB
  6. Physical and Sexual Growth and Development
    - a. The stages of normal pubertal development
    - b. The differential diagnosis of pubertal and growth delay
    - c. The initial evaluation of adolescent short stature and pubertal delay
  7. Psychosocial Growth and Development
    - a. The stages and components of psychosocial growth and development

- b. The impact of psychosocial development on health risk behaviors
  - c. Effective counseling strategies for each development stage
8. Adolescent Mental Health Issues
- a. The evaluation of School Failure
  - b. Diagnosis and management of Attention Deficit Disorder in adolescents and adults
  - c. The manifestation and evaluation of depression in adolescents
  - d. Depression treatment and management issues unique to adolescents
9. Eating Disorders: Obesity, Anorexia, and Bulimia
- a. The prevalence and epidemiology of eating disorders
  - b. Health consequences of eating disorders and co-morbid states
  - c. Recognize and diagnosis the forms of eating disorders
  - d. Treatment and management issues related to caring for patients with eating disorders
  - e. Components of the multi-disciplinary approach
10. Acne
- a. The pathophysiology of acne
  - b. Pharmacologic and non-pharmacologic approaches to management
11. The Parent
- a. Identify and separate youth issues from parental issues
  - b. The legal aspects of confidentiality, consent and payment
  - c. Assist parents in counseling and guiding their youth

In addition to the above rotation-specific description, the following goals and objectives apply to the rotation as a whole as well as to continuity clinics which the residents are required to attend throughout the rotation.

### **I. Educational Purpose and Goals**

Outpatient care is essential for the training of physicians who will enter the ambulatory workforce. Primary care electives focus on specialized areas of outpatient medicine, but all of them have similar purpose and goals. Exposure to an array of outpatients presenting to clinics is the primary goal. Unique interviewing skills, focused exams, and specialized procedures as well as common diagnostic differentials and treatment plans are components of each rotation. A complete list of Primary Care Electives is at the bottom of this

document, and specialized features for each rotation are in a separate document.

## **II. Principal Teaching Methods**

### **A. Supervised Direct Patient Care:**

Residents encounter patients via the outpatient clinic setting. Faculty supervise histories, physical exams, and management. Patients are seen both under direct supervision and in concurrent (exception model) care with attending involvement. Evidence-based management is stressed, as well as an emphasis on cost-effective care and health-systems' impact on the treatment plan.

Communication skills are stressed, and behavioral medicine skills are implemented as well.

### **B. Didactic Sessions**

Residents are encouraged to attend the ongoing core didactic series of lectures while on most of these rotations. This includes Medical Grand Rounds and the Noon Conference Series. In addition, handbooks, core articles, and scheduled didactics are part of each of these rotations.

## **III. Educational Content**

### **A. Mix of Diseases**

Encountered patients have a variety of conditions representative of common medical problems.

### **B. Patient Characteristics**

Patients reflect the clinic base which at most sites has federal payors, private commercial insurance, Medicaid and other state funded programs for underserved, and self pay.

### **C. Learning Venues**

Determined by rotation.

### **D. Procedures**

1. Interpretive skills for any tests related to the field of study are developed throughout the month.

1. Blood tests

2. Radiographic tests

3. Consultative skills: Residents are expected to learn the role of serving as a consultant on these rotations.

### **E. Ancillary Services**

1. Subspecialist and Primary Care faculty

2. All medical subspecialty fellows

3. Residents from other specialty training programs: General Surgery, Psychiatry, Orthopedics, Neurosurgery.

4. Case managers

5. Nursing staff

6. Physical Therapy and Occupational Therapy

7. Respiratory Therapy specialists

8. Numerous other ancillary staff – clinical, administrative, and paraprofessionals

#### F. Structure of Rotation

1. These are weekday, business hours rotations without expectation for call or weekend availability.
2. These are in outpatient clinics, all with University affiliation or primary status. Some rotations can place residents on the ward services as a consultant or in the operating room if they choose. This is infrequent.

### **IV. Principal Ancillary Educational Materials**

- A. All residents and managing physicians are provided with a Curriculum and Learning Objectives prior to the start of each rotation.
- B. Residents are assigned targeted reading in primary literature sources by Managing Attending and Teaching Attending physicians throughout the rotations.
- C. Full service libraries are present either immediately if on campus at Denison Library at the University of Colorado Health Sciences Center or at Presbyterian St. Luke's Medical Center. 24-hour access to on-line programs and literature is available.
- D. 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
- E. The Medical Record is totally computerized.

### **V. 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 procedures. The supervising physician verifies that the resident understands the

procedure's indications, contraindications, complications and interpretation.

3. In person feedback is given both at mid-month and at the end of the rotation. In addition, due to the nature of these rotations with intensive one-on-one experiences with dedicated faculty, there is ample time for feedback throughout each day/session.

#### 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.

### **VI. Institutional Resources: Strengths and Limitations**

#### A. Strengths

- 1 Faculty. Faculty has won numerous awards for teaching excellence at each site.
2. Facilities. Sites are all at modern facilities with state-of-the-art care being practiced. Often with cutting edge research going on.
3. Patients. There is an excellent disease mix and patient panel.

#### B. Limitations

1. Continuity can be obtained for some visits throughout the month, but is not possible for the entire rotation given the outpatient nature and constraints of one month blocks.
2. Demand for certain rotations (examples – orthopedics and informatics) can outstrip availability. Additional high-quality mentors may need to be found.

### **VII. Rotation Specific Competency Objectives**

#### A. Patient Care

1. History taking. Residents at all levels of training will collect a thorough history by soliciting patient information and by consulting other sources of primary data in a logical and organized fashion. History-taking will be hypothesis driven. Interviewing within the confines of clinic schedules will be learned, use of appropriate nonverbal techniques, and demonstration of consideration for the patient will all be expected. The resident will inquire about the emotional aspects of the patient's experience while demonstrating flexibility based on patient need.
2. Physical Exam. Residents at all levels of training will learn a focused physical exam relevant to the goals of the rotation, describing the physiological and anatomical basis for normal and abnormal findings.
3. Charting. Residents at all levels of training will record data in a thorough, systematic manner.
4. Procedures.

Throughout the course of the month, any procedures related to the rotation will be learned under close observation with the goal of having the resident become independently skillful by the end of the month. All residents will be expected to understand and be able to verbalize the indications, risks, benefits, after-care, and follow-up of any procedures used. They will perform the consent of patients, and they will be expected to track results, interpret results, and provide results to patients in a language patients can understand.

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 progressively be able to generate a rational differential diagnosis for the most common conditions seen on each rotation, and they will correctly identify and interpret abnormal findings. They will understand their limitation of knowledge and seek the advice of more advanced clinicians. Residents will establish an orderly succession of testing based on their history and exam findings. Basics of treatment as well as common side effects of treatment will be understood by the end of the rotation.

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 and also educate patients and families for enhanced compliance.

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.

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 ancillary staff. 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. They will exhibit team leadership skills through

effective communication as manager of a team whenever applicable on these rotations. When practicable, residents are expected to assist junior peers, medical students, and other hospital personnel to form professional relationships with support staff. Residents will respond to feedback in an appropriate manner and make necessary behavioral changes. Senior residents should be able to successfully negotiate nearly all “difficult” patient encounters with minimal direction and function with decreasing reliance upon attending physicians.

#### 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. They will assess the effectiveness of their own interventions and reorganize if they find inefficiencies or omissions. Whenever possible they will seek out and analyze data on practice experience, identify areas for improvement in knowledge or patient care performance and make appropriate adjustments. They will regularly demonstrate knowledge of the impact of study design on validity or applicability to individual practice.

#### F. Systems Based Practice

Residents will be sensitive to health care costs while striving to provide quality care. They will effectively coordinate care with other health care professionals as required for patient needs. Clinical practice guidelines will be used whenever applicable. Residents will be expected to seek out and understand current outpatient guidelines, but also recognize the limitations of these guidelines and when they may not be applicable. They will work with patient care managers, discharge coordinators and social workers to coordinate and improve patient care and outcomes.