

The University of Arizona Pediatric Residency Program

Primary Goals for Rotation

Adolescent Medicine

1. **GOAL:** Understand the role of the pediatrician in the prevention of adolescent health problems through screening, counseling and advocacy.
2. **GOAL:** Understand normal adolescent behavior, growth, development and physiology and recognize deviations from the norm.
3. **GOAL:** Evaluate and manage common signs, symptoms and situations or risks in adolescents, recognizing when referral is indicated.
4. **GOAL:** Diagnose and manage common conditions in adolescents that generally do not require referral.
5. **GOAL:** Recognize, manage, and refer adolescent conditions that generally require consultation or referral.
6. **GOAL:** Demonstrate high standards of professional competence while working with adolescents.

1. GOAL: Understand the role of the pediatrician in the prevention of adolescent health problems through screening, counseling and advocacy.

A. Discuss and follow recommendations for the frequency, type and content of adolescent health care visits outlined by the Bright Futures, AAP Health Supervision Guidelines and GAPS guidelines, and describe the rationale behind these recommendations.

B. Perform adolescent health maintenance visits, demonstrating ability to:

1. Organize the visits appropriate for situation (e.g., individualization according to the adolescent's developmental level, social, cultural, spiritual/religious, national [immigrant] background, and family characteristics).
2. Obtain and interpret a history from the adolescent's parent(s), including: concerns about the adolescent's health, past medical history, family history, psycho-social history, spiritual or religious history, academic performance, needs for anticipatory guidance, etc.
3. Obtain and interpret a detailed, sensitive, and private history from the adolescent (assessing current health concerns, bio-psycho-social history, spiritual or religious history, and behaviors that may affect health).
4. Be familiar with questionnaires (e.g., Initial and Periodic Adolescent Preventive Services Visit Forms developed as an adjunct to GAPS), trigger questions (e.g., from Bright Futures), and structured interview techniques (e.g., HEADSS; HEADSFIRST).
Complete a sensitive and skillful physical examination of male and female adolescents and young adults.
5. Counsel and provide patient education in a developmentally-appropriate manner, remaining respectful of the adolescent's needs and privacy.

C. Discuss how to make the office environment suitable to serve this age group and provide education and counseling to both adolescents and their parents (e.g., discussion of office consent and confidentiality policies for health visits and release of medical records, separate waiting rooms, extended hours, patient education methods).

D. Discuss and follow federal, state and local laws that apply to adolescent health care, such as consent for confidential services and release of medical records, times when confidentiality may be abrogated, refusal of medical care, contraception, access to abortion, mental health, STD and chemical dependence services.

E. Explain the differences in health supervision visits for adolescents with special needs, such as those with:

1. Nontraditional living situations (e.g., detention centers, foster care, homeless)
2. Chronic diseases (e.g., cystic fibrosis, mental retardation, diabetes)
3. Financial, social, cultural or language barriers

F. Perform and interpret adolescent screening according to guidelines by experts in the field (e.g., AAP, Bright Futures and GAP), and demonstrate familiarity with indications and timing, including:

1. Physical examination screens (e.g., cardiovascular disease or risk, nutritional risk, dental disease, musculoskeletal problems and pre-participation sports physicals, sexual maturity ratings, skin problems, sexually transmitted diseases, scoliosis [using scoliometer], thyroid disease)
2. Psychosocial screening (e.g., school performance, mood disorders, tobacco and substance abuse, sexual risks, media use, other risk taking behaviors)
3. Laboratory or procedural screens (e.g., hearing, vision, anemia, hyperlipidemia, tuberculosis)

G. Evaluate immunization status and administer indicated immunizations.

H. Identify, assess risks, and counsel adolescents and families in the context of health promotion and illness or problem care for common or important conditions according to recommended guidelines (e.g., AAP, Bright Futures and GAP). Example topics from these guidelines are: communication skills and self-esteem building; education and career or vocational planning; injury and violence prevention; substance abuse; nutritional issues; pregnancy prevention; etc.).

I. Educate adolescents through demonstration and instruction to perform routine breast and testicular self-examination.

J. Help adolescents to use health services appropriately during their teens and guide them in their transition to adult care.

K. Empower adolescents to become increasingly responsible for their own health and well-being.

L. Describe ways to improve adolescent health and prevention services at the federal, state and/or local level.

M. Discuss advocacy strategies you might use to improve or prevent at least one adolescent health problem you see in your patient population.

2. GOAL: Understand normal adolescent behavior, growth, development and physiology and recognize deviations from the norm.

A. Recognize the wide range of normal patterns of physical growth and pubertal development during adolescence and appropriately counsel patients and their families about pubertal variations.

B. Describe the pathophysiology, evaluation and management of variations in growth patterns and pubertal changes, including indications for referral.

C. Recognize the range of normal psychosocial development in adolescents; the stages of development across early, mid and late adolescent years; and appropriately identify when behaviors lie outside the norm, requiring special intervention or referral.

D. Order and interpret clinical and laboratory tests to identify adolescent disease versus non-disease, taking into account physiologic values for adolescents at different stages of maturity.

3. GOAL: Evaluate and manage common signs, symptoms and situations or risks in adolescents, recognizing when referral is indicated.

A. Develop a strategy to evaluate complaints in adolescents that may represent functional complaints or psychosocial problems.

1. Recognize common patterns of functional complaints in adolescents (e.g., headaches, abdominal pain, fatigue, chest pains).
2. Develop a sensitive, supportive approach to the evaluation of these concerns.
3. Recognize characteristics in the adolescent's history or health course warranting further diagnostic tests versus watchful and supportive observation.

B. Evaluate and manage the following signs, symptoms, and common adolescent situations, recognizing which can be managed by the general pediatrician and which ought to be referred to an adolescent subspecialist or other subspecialist:

1. Behavioral/psychiatric: school avoidance, absenteeism, truancy and drop out; poor school behavior; poor school performance; sleep disturbance; somatic complaints; social avoidance; parent-adolescent disagreements; concerns about peer pressure; bullied adolescent; overscheduled/extended adolescents; emotional and educational needs of pregnant adolescents and adolescent parents; emotional and educational needs of gifted adolescents; recurrent injuries suspicious of risk taking behavior or abuse, recent loss (e.g., death of friend, parent), anxiety, depression, social isolation, rushed or pushed adolescents
2. Cardiovascular: chest pain, syncope, murmurs, IHSS, hypertension
3. Dental: mouth and tooth pain or injury; painful or swollen gums or mucosa, TMJ and facial pain
4. Dermatologic: rashes, hair loss, pigment changes, changing moles
5. GI: acute and chronic abdominal pain, acute and chronic diarrhea, dyspepsia, vomiting, constipation
6. Growth/endocrine: abnormalities in growth rate or puberty; thyroid enlargement
7. GU/Nephrology: dysuria, frequency, scrotal swelling; scrotal pain, feared STD, sexual concerns or dysfunction in male, need for contraception in male
8. GYN: missed, irregular or excessive vaginal bleeding; vaginal discharge or pain; feared STD; lower abdominal pains; feared pregnancy; sexual concerns or dysfunction in female; need for contraception in female, breast asymmetry; also describe findings on history that would initiate a pelvic exam
9. Hematology/oncology: fatigue, anemia, swollen glands, fear of cancer
10. Infections: fever with no obvious cause, lymphadenopathy, upper respiratory symptoms including sore throat and ear pain, deficient immunizations, objections to recommended immunizations
11. Musculoskeletal/Sports medicine: back pain, limp, joint pains, minor injuries/pains, excessive/rapid muscular development in an athlete; missed periods in a female athlete
12. Neurologic: headaches, dizziness, passing out, head injury, altered behavior
13. Nutritional: Obesity, weight loss, unusual eating habits (vegan diet, alternative diets or food supplements, diet changes during sports training to enhance performance)

14. Otolaryngology: recurrent nasal congestion or drip, large tonsils, persistent laryngitis, hearing loss
15. Pulmonary: shortness of breath, wheezing, cough

4. GOAL: Diagnose and manage common conditions in adolescents that generally do not require referral.

- A. Recognize presenting symptoms, diagnose, describe the pathophysiology, and manage common presentations of the following conditions:
1. Allergies: environmental and seasonal allergies
 2. Behavioral/psychiatric: mild cases of substance abuse (tobacco, alcohol, inhalant and illicit drugs), non-organic headaches, common migraines, mild to moderate Attention Deficit Hyperactivity Disorder (ADHD); mild manifestations of anxiety, mood and conduct disorders; chest pain related to anxiety
 3. Cardiovascular: risk for cardiovascular disease in adulthood, hyperlipidemia, hypertension, functional heart murmurs
 4. Dental: viral exanthems and aphthous ulcers
 5. Dermatologic: acne, viral exanthems, dermatophytoses, eczema, pityriasis rosea, contact dermatitis, seborrhea, urticaria, acanthosis nigricans, body art including piercings and tattoos, hirsutism
 6. Endocrine: thyroid disease, galactorrhea, hirsutism, non-pathologic short or tall stature, male gynecomastia, polycystic ovary syndrome (PCOS)
 7. Gastrointestinal: gastroesophageal reflux disease (GERD), mild gastritis, dyspepsia, peptic ulcer disease, rectal fissures, hemorrhoids, encopresis, constipation
 8. GU/ Nephrology: epididymitis, mild varicocele, UTI, proteinuria and hematuria, enuresis, urethritis
 9. GYN: dysmenorrhea, pre menstrual syndrome (PMS), mild dysfunctional uterine bleeding, amenorrhea, vaginitis, cervicitis, STDs, uncomplicated pelvic inflammatory disease (PID), pregnancy diagnosis, breast mass
 10. Hematology/oncology: iron deficiency anemia
 11. Infections: mononucleosis, strep throat, sinus infections, ear infections, common causes of infectious diarrhea and vomiting, mild cases of hepatitis
 12. Musculoskeletal/sports: kyphosis, scoliosis < 20 degrees by Cobb angle on x-ray, Osgood-Schlatter Disease, patello-femoral syndrome, back pain due to minor musculoskeletal strain, costochondritis, mild overuse syndromes
 13. Neurologic: common seizure disorders, uncomplicated tics, migraine headaches
 14. Nutritional: exogenous obesity, pre-eating disorder behaviors, vegetarian diet
 15. Pulmonary: mild, moderate, and exercise induced asthma, respiratory tract infections

5. GOAL: Recognize, manage, and refer adolescent conditions that generally require consultation or referral.

- A. Conduct the initial assessment, develop a differential diagnosis, initiate treatment and/or referral as appropriate of the following conditions that affect adolescents:
1. Allergy/Immunology: severe allergic reactions (bee, food), immunodeficiency disorders

2. Behavioral/psychiatric: anorexia nervosa, bulimia, chronic fatigue syndrome, moderate-severe depression, suicidal/homicidal ideation, learning disabilities, substance abuse including performance enhancing medications, obsessive compulsive disorder (OCD), severe anxiety disorders, psychosis, conduct disorders, conversion reactions, drug overdoses
3. Cardiovascular: mitral valve prolapse, pathologic heart murmurs, refractory hypertension
4. Dental: abscess, caries, fractured or avulsed tooth, severe trauma to jaw and soft tissues, malocclusions
5. Dermatologic: cystic or nodular acne, psoriasis, alopecia, pyoderma, hydradenitis suppurativa, hirsutism
6. Endocrinology: thyroid disease, galactorrhea, hirsutism or virilism, abnormal growth, precocious and delayed puberty, diabetes mellitus types I and II, non-pathologic short or tall stature, Turner syndrome
7. Gastrointestinal: appendicitis, inflammatory bowel disease (IBD), refractory encopresis/constipation, irritable bowel syndrome
8. GU/Nephrology: nephrotic/nephritic range proteinuria, testicular torsion, scrotal mass, moderate-severe varicocele, hydrocele, inguinal hernia, genitourinary trauma, obstructive uropathy, renal hypertension, chronic renal disease
9. GYN: pregnancy, ectopic pregnancy and other complications of pregnancy, amenorrhea of undetermined etiology, dysfunctional uterine bleeding, polycystic ovary syndrome, ovarian cysts, tumors and torsion, Bartholin's abscess, suspected endometritis, complicated PID, PAP smear abnormalities, persistent breast masses, breast mass, endometriosis, congenital mullerian anomalies, contraception in teens with chronic disease
10. Hematology/Oncology: hemoglobinopathies, bone marrow depression, cancer, clotting disorder, bleeding disorder
11. Infectious Disease: appendicitis, severe or unusual infections, HIV
12. Musculoskeletal: patellar dislocation, scoliosis > 20° by Cobb angle on x-ray, suspected bone tumors, fractures, refractory back pain, chronic joint pain
13. Neurologic: uncommon and difficult to control seizures, serious head injury or concussion, acute and chronic neurology conditions, severe headaches
14. Pulmonary: severe asthma, cystic fibrosis
15. Other: Celiac disease, juvenile rheumatoid arthritis (JRA), systemic lupus erythematosus (SLE), chromosomal abnormalities

B. Work effectively with a wide range of health professionals who care for adolescents with health care issues.

1. Describe the role and general scope of practice of adolescent-trained specialists, general pediatricians, family practitioners, and other providers (e.g., gynecologist, behavioral health counselors, school staff) who are involved with the care of adolescents.

2. Recognize situations where adolescents benefit from the skills of professionals trained in the care of adolescents.

3. Advocate for the adolescent and his/her family to secure effective, coordinated care for the adolescent using appropriate resources in the community and health profession.

C. Maintain an interactive and supportive primary care relationship with adolescents and their specialty consultants when patients are referred for management of specific disorders.

6. GOAL: Demonstrate high standards of professional competence while working with adolescents.

A. Competency 1: Patient Care. Provide family-centered patient care that is development- and age-appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

1. Use a logical and appropriate clinical approach to the care of adolescents, applying principles of evidence-based decision-making and problem-solving.

2. Provide sensitive support to adolescents and their families in all clinical settings (outpatient, continuity, adolescent clinic, school and community settings, mental health services, inpatient hospital services).

B. Competency 2: Medical Knowledge. Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

1. Demonstrate a commitment to acquiring the base of knowledge needed for care of adolescents.

2. Know and/or access medical information efficiently, evaluate it critically, and apply it to adolescent care appropriately.

C. Competency 3: Interpersonal Skills and Communication. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

1. Communicate skillfully with adolescents and their families, using effective interview, counseling and patient education strategies.

2. Communicate effectively with physicians, other health professionals, and health-related agencies to create and sustain information exchange and teamwork for patient care.

3. Develop effective strategies for teaching students, colleagues, other professionals and laypersons.

4. Maintain accurate, legible, timely, confidential and legally appropriate medical records and consultation reports for adolescents in the outpatient and inpatient setting.

D. Competency 4: Practice-based Learning and Improvement. Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate and improve one's patient care practice.

1. Identify standardized guidelines for diagnosis and treatment of conditions common to adolescents and adapt them to the individual needs of specific patients.

2. Use scientific methods and evidence to investigate, evaluate and improve one's patient care practice related to adolescents.

3. Identify individual learning needs, systematically organize relevant information resources for future reference, and plan for continuing acquisition of knowledge and skills related to adolescents.

E. Competency 5: Professionalism. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diversity.

1. Demonstrate personal accountability to the well being of patients (e.g., following-up lab results, writing comprehensive notes, and seeking answers to patient care questions).
2. Demonstrate a commitment to professional behavior in interactions with patients, staff and professional colleagues.
3. Adhere to ethical and legal principles of care; demonstrate appreciation of and understanding of issues pertinent to adolescents (treatment of minors, confidentiality, etc.).
4. Be sensitive to diversity and recognize one's own biases that may affect one's response to adolescents.

F. Competency 6: Systems-Based Practice. Understand how to practice high-quality health care and advocate for patients within the context of the health care system.

1. Identify key aspects of health care systems as they apply to care of adolescents and their families (e.g., challenges to access and continuity of care; factors affecting billing and reimbursement).
2. When providing care to adolescents in all clinical settings, consider cost and resource allocation without compromising quality of care.
3. Recognize and advocate for adolescents who need assistance to deal with health care system complexities.
4. Recognize the limits of one's knowledge and expertise and take steps to avoid medical errors.

Procedures

A. GOAL: Technical and therapeutic procedures. Describe the following procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.

1. Genital wart treatment
2. Gynecologic evaluation: postpubertal
3. Urethral swab

B. GOAL: Diagnostic and screening procedures. Describe the following tests or procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.

1. Scoliosis, scoliometer

Adapted From

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