

Adolescent Medicine Curriculum:

This is an outline of the goals and objectives for the adolescent medicine curriculum that residents will work on during their three years of pediatric training that includes a one month block rotation on adolescent medicine. At the beginning of the block rotation the resident will do a self assessment that will include a survey of prior adolescent patient care experiences, knowledge and attitudes; and identify strengths and weaknesses; and then with guidance from the attending outline individual learning plan and priorities. The resident will be expected to track learning activities (that include patient care, chart reviews, lectures, discussions, readings, information modules, cases, power point presentation, etc) on pre-formatted logs. At the end of the rotation the resident and attending will review the logs and create an individualized education plan that the resident will work on throughout the remainder of their residency training program. (See description of adolescent block rotation). By the end of the third year of their residency program the resident should be able to independently recognize and manage/address common adolescent issues, problems and conditions.

I. GOAL: Prevention Screening and Counseling. Understand the role of the pediatrician in the prevention of adolescent health problems through screening, counseling and advocacy.

- A. Understand content and process of the health supervision visit
 - 1. Discuss and follow recommendations for the frequency, type and content of adolescent health care visits outlined by the Bright Futures 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 the individual adolescent (eg., 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). Utilize a variety of interview techniques/skills. (eg. careful listening, definition, open-ended questions, clarification, summary, announcement, indirect approach)
 - 4. Be familiar with questionnaires (eg., Initial and periodic Adolescent Preventive Services Visit Forms developed as an adjunct to GAPS), trigger questions (eg., from Bright Futures), and structured interview techniques (eg., HEADSS, HEADSFIRST). Discuss pros and cons of questionnaires and interviews.
 - 5. Complete a sensitive and skillful physical examination of male and female adolescents and young adults.
 - 6. Counsel and provide health education to the parent/guardian and to the patient in a developmentally-appropriate manner, remaining respectful of the adolescent's needs and privacy. Utilize a bi-directional conversation style, avoid lecturing.
 - 7. Understand roles of a pre participation sport screens/evaluations.
- 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. Exam personal attitudes and belief that influence the delivery of adolescent health care
- F. Explain the differences and similarities in health supervision visits for adolescents with special needs, such as those with:
 - 1. Nontraditional living situations (eg., detention centers, foster care, homeless, independent living, parenting teens)
 - 2. Chronic diseases (eg., cystic fibrosis, mental retardation, diabetes)
 - 3. Financial, social, cultural or language barriers
- G. Immunizations
 - 1. Evaluate immunization status (AAP and ACIP recommendations; CDC guidelines and resources)
 - 2. Know administration guidelines for indicated immunizations
 - 3. Provide vaccine information to adolescent patients and obtain assent
 - 4. Know how to report adverse reactions
 - 5. Discuss strategies to improve vaccination rates among teens
- H. Health promotion
 - 1. Identify, assess risks, and counsel adolescents and families in the context of health promotion and recommended guidelines (eg., 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)
 - 2. Empower adolescents to become increasingly responsible for their own health and well-being
 - a. Help adolescents to use health services appropriately during their teens
 - b. Improve their knowledge of health issues
 - c. Obtain their assent for care
 - d. Guide them in their transition to adult care (Involve them in management plans, Diabetes self care, Family planning)
 - e. Educate adolescents through demonstration and instruction (eg. perform routine breast, testicular self-examination, inhaler use)
- I. Adolescent Health Advocacy
 - 1. Describe/understand ways pediatricians can improve adolescent health and prevention services at the federal, state and/or local level
 - 2. Discuss advocacy strategies to improve or prevent at least one adolescent health problem seen while caring for adolescent patients
 - 3. Know about health care insurance: Medicaid, Chips, private plans and how they affect access and the provision of care to adolescent patients
 - 4. Be aware of media influences
 - 5. Know about health department and other youth serving agency

- resources/services
6. Know about community efforts and campaigns to improve adolescent health and well being
 7. Assess community based efforts: accessible, effective, developmentally appropriate
 8. Participate in an advocacy or service effort at the state or local level (Knowledge, leadership or service to an organization/group dealing with adolescent issues)
 9. Participate in outreach efforts (eg. Mobile unit, Ebenezer clinic, health department clinics)

Goal II: History and Physical Examination screens

- A. Perform and interpret adolescent screening according to guidelines by experts in the field (e.g., AAP, Bright Futures and GAPS), and demonstrate familiarity with indications and timing, including:
 1. History/Physical examination, screens, e.g.
 - cardiovascular disease or risk
 - Hypertension
 - Nutritional risk (BMI, obesity, underweight, disordered eating)
 - Dental and periodontal disease
 - Musculoskeletal problems
 - Menstrual disorders
 - Pubertal development (sexual maturity ratings)
 - Skin problems (acne severity; hirsutism: Gallway-Ferriman Score)
 - Sexually transmitted diseases
 - Scoliosis (using scoliometer)
 - Thyroid disease
 - Preparticipation Sports Evaluation
 2. Psychosocial screening (eg., school performance, mood disorders, tobacco and substance abuse, sexual risks, media use, other risk taking behaviors)
HEADSS interview
GAPS questionnaire
Bright Futures trigger questions
Columbia Teen Screen
CRAFFT
Connors/Vanderbilt ADD Screens
Smoking history
 3. Laboratory or procedural screens, eg.
Hearing
Vision
Anemia
Hyperlipidemia
HIV/Aids
Tuberculosis

III. Goal: Adolescent Medical Home

- A. In addition to well visits, the acute care and chronic management visits provide anticipatory guidance and health maintenance opportunities
- B. Understand the concept and look for a “hidden agenda”

- C. 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 (eg., 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
- D. Maintain an interactive and supportive primary care relationship with adolescents and their specialty consultants when patients are referred for management of specific disorders
- E. Recognize the role(s) and the pros/cons of other health/mental health care sites eg.
- Health department
 - Family planning sites
 - School based clinics
 - College health clinics
 - Urgent care facilities
 - Hospital based emergency department
 - Mobile units
 - Youth serving agencies

IV. Goal: Normal Vs. Abnormal. Understand normal adolescent behavior, growth development and physiology and recognize deviations from the normal

- 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, pubertal changes, and the menstrual cycle including the 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 are 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.

V. Goal: Evaluate and manage common signs, symptoms and adolescent situations, recognizing those that can be managed by the general pediatrician and those that ought to be referred.

- A. Evaluate and manage common undifferentiated signs and symptoms, situations, or risks in adolescents, recognizing when referral is indicated.
1. Develop a strategy to evaluate complaints in adolescents that may represent functional complaints or psychosocial problems
 2. Recognize common patterns of functional complaints in adolescents eg.:
 - headaches

- abdominal pain
- fatigue
- chest pains

3. Develop a sensitive, supportive approach to the evaluation of these concerns
4. 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. Allergies: seasonal/environmental
2. Behavioral/mental Health: 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 inquiries suspicious of risk taking behavior or abuse, recent loss (e.g., death of friend, parent), anxiety, depression, social isolation, rushed or pushed adolescents, moodiness, anger outbursts.
3. Cardiovascular: chest pain, syncope, murmurs, IHSS, hypertension
4. Dental: mouth and tooth pain or injury; painful or swollen gums or mucosa, TMJ and facial pain
5. Dermatologic: rashes, hair loss, pigment changes, changing moles
6. GI: acute and chronic abdominal pain, acute and chronic diarrhea, dyspepsia, vomiting, constipation
7. Growth/endocrine: abnormalities in growth rate or puberty; thyroid enlargement
8. GU/Nephrology: dysuria, frequency, scrotal swelling; scrotal pain, feared STD, sexual concerns or dysfunction in male, need for contraception in female, breast asymmetry; also describe findings on history that would initiate a pelvic exam
9. 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
10. Hematology/oncology: fatigue, anemia, swollen glands, fear of cancer
11. Infections: fever with no obvious cause, lymphadenopathy, upper respiratory symptoms including sore throat and ear pain, deficient immunizations, objections to recommended immunizations
12. Musculoskeletal/Sports medicine: back pain, limp, joint pains, minor injuries/pains, excessive/rapid muscular development in an athlete; missed periods in a female athlete
13. Neurologic: headaches, dizziness, passing out, head injury, altered behavior
14. Nutritional: Obesity, weight loss, unusual eating habits (vegan diet, alternative diets or food supplements, diet changes during sports training to enhance performance)
15. Otolaryngology: recurrent nasal congestion or drip, large tonsils, persistent laryngitis hearing loss
16. Pulmonary: shortness of breath, wheezing, cough
17. Genetics

18. Other

VI. GOAL: Common Conditions Not Referred. Diagnosis 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, chest pain
 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, impetigo
 6. Growth/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. Hematology/oncology: iron deficiency anemia, eosinophilia, thalassemia trait, sickle cell trait, mild-moderate eosinophilia, low white blood cell count thrombocytosis
 10. Hematology/oncology; iron deficiency anemia, eosinophilia, thalassemia trait, sickle cell trait, mild-moderate eosinophilia, low white blood cell count, thrombocytosis
 11. Infections: mononucleosis, strep throat, sinus infections, ear infections, conjunctivitis, common causes of infectious diarrhea and vomiting, mild cases of hepatitis (see other systems)
 12. Musculoskeletal/sports: kyphosis, scoliosis < 20 degrees by Cobb angle on x-ray, Osgood-Schlatter Disease, patello-femoral syndrome, initial assessment of back pain, minor musculoskeletal strain, costochondritis, mild overuse syndromes
 13. Neurologic: common seizure disorders, uncomplicated tics, tension headaches, uncomplicated migraine headaches
 14. Nutritional: exogenous obesity, pre-eating disorder behaviors, vegetarian diet, supplements
 15. Pulmonary: mild, moderate and exercise induced asthma, respiratory tract infections

VII. GOAL: Conditions Generally Referred. Recognize, manage, and refer adolescent conditions that generally require consultation or referral

- A. Conduct the initial assessment, develop a differential diagnosis, and 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/Mental Health: 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: nephritic/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 Diseases: appendicitis, severe or unusual infections, HIV
12. Musculoskeletal: patellar dislocation, scoliosis $> 20^\circ$ 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. Genetic: Turner, Noonan, Klinefelter, Fragile X
16. Other: Celiac disease, juvenile rheumatoid arthritis (JRA), systemic lupus erythematosus (SLE), chromosomal abnormalities

VIII. GOAL: Demonstrate high standards of professional competence while working with adolescents (Pediatric Competencies in Brief).

Competency 1: Patient Care. Provide adolescent care that is development and age appropriate, compassionate, and meets or exceeds performance standards

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) Foster appropriate parent engagement

3. Understand and apply principles of confidentiality, consent and assent to the care of adolescent patients.
4. Appropriately utilize community resources to address or enhance the health care and well being of adolescents

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.
3. Be familiar with a variety of information resources including
 - CDC website (immunizations, STD, MMWR guidelines)
 - AAP and WHO websites
 - Textbooks
 - Journals
 - Survey sites (MTF, YRBS)
 - Patient/Parent Information (web sites eg., youngwomenshealth.org, literature, support groups)

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 including the motivational interview and use of contracts. Develop strategies for patients/families that are suspicious or mistrust authority.
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
 - power point presentations
 - poster/talking point presentations
 - question and answer process
4. Maintain accurate, legible, timely, confidential and legally appropriate medical records and consultation reports for adolescents in the outpatient and inpatient setting

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 (eg. WHO: medical eligibility for contraceptive use; NIH: Asthma Guidelines; AAP: Menstrual cycle as a vital sign)
2. Use scientific methods and evidence to investigate, evaluate and improve one's patient care practice related to adolescents
 - participate or evaluate a Quality Improvement/assurance activity
 - understand the plan, do, study, act process-cycle

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
 - Develop a prioritized education plan for the Adolescent Block Rotation and a plan for the remainder of the training program
 - Be familiar with Pedialink

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

1. Demonstrate personal accountability to the well being of patients (eg., 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

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 system as they apply to care of adolescents and their families (eg., challenges to access and continuity of care; factors affecting billing and reimbursement)
2. Be aware of institutional, state and federal regulations, initiatives, and (proposed) legislation that affects the health care system and care of adolescents.
3. When providing care to adolescents in all clinical settings, consider cost and resource allocation without compromising quality of care
4. Recognize and advocate for adolescents who need assistance to deal with health care system complexities
5. Recognize the limits of one's knowledge and expertise and take steps to avoid medical errors
6. Participate in community based efforts to improve the health and well being of adolescents (eg. WV Children's Day at the Legislature, asthma coalition, Prevent Child Abuse WV, RAZE)

IX. GOAL: Procedures

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

Genital wart treatment
Gynecologic evaluation: external genital examination, pelvic examination
Pap smear Guidelines
Wet prep
STD Detection

- B. Diagnostic and screening 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

Vision

Hearing
Tuberculosis
Hyperlipidemia
Glucose intolerance
Scoliosis, scoliometer
HIV
Pulmonary function tests
Tilt table testing
CBC; Anemia (serum ferritin, hemoglobin content of reticulocyte, RDW smear
mentzer index)
Urine analysis
Drug testing
Pelvic ultrasound
Breast scan
Liver function test
Hepatitis screens

***Highlighted Goals for common adolescent health care issues**

X. GOAL: Sports Medicine

- A. Routine physical activity
1. Understand and provide guidance about the importance of routine physical activity as a part of adolescents daily life
 2. Obtain a physical activity history as part of a comprehensive visit
 3. Promote physical activities that can be enjoyed as part of a healthy adult lifestyle
- B. Pre-participation Evaluation
1. Evaluate sports readiness including special needs patients (eg. chronic conditions, disabilities)
 2. Recognize conditions that may affect participation
 3. Be able to provide participation recommendations
 4. Recognize psychosocial issues related to participation
 5. Perform 14 step musculoskeletal screening examinations
 6. Incorporate key concepts about adolescent exercise, physiology, training including aerobic anerobic strength training and flexibility
 7. Use opportunity to include risky behavior screen and to evaluate immunization status
 8. Provide sports-related safety guidance including sun protection
 9. Provide nutrition guidance
 10. Provide return to play guidance
 11. Know the specific injuries associated with different sports activities (knee-soccer; elbow-baseball)
 12. Recognize the importance of the history
- C. Recognize, evaluate, manage and know when to refer
1. musculoskeletal injuries including overuse syndromes
 2. head injuries
 3. athletic Triad
 4. heat illness/dehydration
 5. chest pain
 6. syncope

XI: Goal: Nutrition and eating disorders understand health supervision for adolescents related to healthy diet and eating patterns. Recognize and manage disordered eating, nutritional deficiencies, complications of obesity underweight and know when to refer

A. Assessment and screening

1. Chart (track) height, weight and vital signs
 - use growth curves
 - calculate body mass index
 - definitions of at risk for overweight, underweight
2. Provide guidance for healthy life styles
 - food variety, portions
 - caffeine
 - physical activity
3. Obtain a nutritional history
 - assess eating patterns
 - food fads, preferences, supplements
 - bingeing, purging, hoarding, laxatives
 - body image
 - evidence of food insecurity
4. Assess risk for obesity/hyperlipidemia/hypertension
 - diet, family history, psychosocial/habits, weight change
 - recognize acanthosis nigricans
5. Recognize findings that could suggest an eating disorder
 - bradycardia, hypothermia, lanugo hair, finger callous, dental enamel erosion, amenorrhea, irregular menses

B. Recognition and management of common nutrition related problems

1. Common deficiencies in the adolescent diet and their consequences
 - calcium, folic acid, iron
2. Be able to assess and provide guidance to adolescents that adhere to special diets or food restrictions (eg. vegetarians, Weight Watchers, Atkins)
3. Those that are at risk of overweight
4. Those that are overweight and associated consequences/complications (eg.)
 - hyperlipidemia
 - insulin resistance
 - pseudotumor cerebri
 - sleep apnea
 - fatty liver
5. Conditions associated with obesity (eg.)
 - PCOS
 - Prader Willi
6. Eating disorders (anorexia, bulimia, NOS)
 - common presentations; diagnostic criteria
 - complications
 - role of pediatrician
 - management strategies
 - when to refer
7. Anemia in an adolescent
 - causes
 - laboratory evaluation
8. Risk for osteopenia/osteoporosis
 - anticipatory guidance
 - those at increased risk (eg. anorexia, Turner syndrome, galactosemia,

northern latitudes)

XII. Pubertal Development

A. Growth and sexual maturity

1. see Goal IV
2. Describe and identify SMR/Tanner stages
3. Provide anticipatory guidance
4. Recognize, evaluate, manage and know when to refer
 - short/tall stature
 - delayed puberty
 - delayed menarche
 - arrested puberty

B. Psychological development and risky behaviors

1. see Goal II, A.2
2. see Goal IV
3. Understand the stages of psychosocial development in adolescence, the ages at which they usually occur, issues of appearance and self esteem, and the relevance to health care and management plans
4. Understand the importance of relationships with families and peers and connectedness to school
5. Be able to identify an adolescent's assets
6. Be familiar with risk taking behaviors
 - review trend data (eg. Monitoring the Future, Youth Risk Behavior Survey)
7. Perform comprehensive risk assessment
 - HEADSS
 - Trigger questions
 - Questionnaires
8. Recognize the influence of parents, peers, other adults including teachers and health care professionals, media, spirituality, and world wide web
9. Provide anticipatory guidance/health promotion (see Goal I, H)
 - support positive parent-teen relationship
 - encourage problem solving
 - communication skills
 - self-esteem building
 - integrate when appropriate with acute care visits

C. Recognize, evaluate, manage and know when to refer

1. parent teen conflict
2. anxiety, stress, phobias
3. somatic complaints (Goal V.A)
4. depression and suicide (Goal XVIII)
5. tobacco and substance abuse (Goal XVI, XVII)
6. abuse (domestic and dating violence, verbal, physical and sexual)
7. sexual orientation issues (Goal XV)
8. Be able to teach stress relaxation technique
 - Deep breathing
 - Visual imagery
 - Progressive muscle relaxation

XIII. School Health

A. Patient as a student

1. Use of structured interview, questionnaire, and trigger questions to gather information about school performance, attendance and conduct
2. Identify risk factors for school problems and risk of dropping out (eg. learning disabilities, ADD, homelessness or near homelessness, absenteeism, inappropriate educational placement)
3. Identify the “working student”; assess the pros and cons of employment
4. Define the student’s “home” (eg. foster care, independent living, near homelessness, parenting teen, group home, juvenile justice placement)
5. Recognize the importance of future plans and the student’s “self description”
6. Assess parent engagement (eg. limitations: employment, transportation, illness, mental health, transportation, family/financial stress, military service)
7. Look for indicators of school connectedness
8. Identify students with chronic or special health care needs
9. Assess the health status of the school environment (safety, allergens, promote physical activity and nutrition)
10. Know the components, regulations and indications for an I.E.P. (individualized education plan)

B. School Based Services

1. Learn about school policies and regulations that affect the health care and well being of adolescents in one’s practice (eg. medication/OTC policies, self medication, school bus idling, food service standards)
2. Learn about school mandated screenings (TB, vision, hearing, immunization)
3. Learn about available services (eg. nursing, counseling, daycare, fitness programs)
4. Learn about health education programs (eg. curriculum, sex/HIV, parenting)
5. Learn about chronic care management plans, regulations, requirements (eg. diabetes, asthma, feeding tubes, medication ports)
6. Role of the school nurse

C. School Based Health Centers

1. Advantages, disadvantages and limitations as a medical home, collaborative partner, and outreach initiative
2. Be aware of variations in services and level of care
3. The members, roles and practice parameters of the school health team
4. Learn about approaches to improve the immunization status of adolescents
5. Understand the interplay between the school system and the health center
6. Identify efforts to engage parents
7. Identify health promotion efforts including those that help students to obtain and to appropriately use health services
8. Identify the efforts to promote oral health care
9. Look for hidden agenda for “frequent flyers” in health center
10. Identify advocacy efforts on local, state, federal levels

D. Recognize, evaluate, manage and know when to refer

1. School avoidance, absenteeism
2. Conduct/disruptive behavior
3. ADD

4. Chronic illness with special school/educational needs
5. Pregnant/parenting teen needs
6. Drop out risk
7. Recognize "GAPS" in primary care
8. Address unmet health care needs
9. Anger and stress management
10. Injuries
11. Hyperventilation/syncope
12. Differences/similarities/barriers to health care for rural and urban teens

XIV. Injury Prevention

(see Goal I, H; Goal II, A 2; Goal X)

- A. Assessment/screening
 1. Describe how developmental and behavioral stages of adolescence and psychosocial factors related to risks for injury, violence and abuse
 2. Determine the potential risk for intentional and unintentional injury using structured interview including the CRAFFT, questionnaires and trigger questions during health maintenance and as appropriate during acute care visits
 3. Explain the 4 major risk factors associated with injuries to adolescents
 - substance use
 - failure to use safety devices (eg. seat belts, helmets)
 - access to fire arms
 - sports participation (see Goal X)

- B. Health promotion/counseling
 1. Tailor injury counseling to adolescents for their particular exposure/ participation and level of psychosocial development
 2. Recognize barriers to compliance with anticipatory guidance
 3. Specifically address factors known to increase risk eg. alcohol: driving/boating/swimming
 4. Promote problem solving
 5. Be able to counsel about
 - motor vehicle/ATV
 - firearm access/safety
 - substance abuse
 - safety devices
 - seat belts
 - helmets
 - flotation

- C. Recognize, evaluate, manage and know when to refer
 1. Injuries should prompt a risky behavior screen
 2. Be alert that injuries may be a flag for complex psychosocial issues (eg. domestic/dating violence; anger/stress management)
 - intentional "cutting"
 - self inflicted hand injuries
 - arm bruises

XV. Sexuality

- A. Assessment/screening

1. Assess the adolescent's knowledge of sexual identity, activity, reproduction and disease transmission and relate to stages of adolescent psychosocial development
2. Gather information about the adolescent's sexual development and sexuality using a structured interview, questionnaire and trigger questions
3. Obtain a sexual history
 - sexual identity
 - abstinence
 - partners (preferences, risky behaviors, abuse)
 - condoms/contraceptive use
 - sexual activities
4. Assess the risk for
 - STD/HIV
 - pregnancy
 - exploitation
 - abuse (past/present)
5. Recognize cultural influence including influence of parents, siblings, peers, spirituality and the media

B. Health promotion

1. Provide and support sexuality education and promote healthy sexual attitudes and accurate knowledge about identity, relationships, intimacy, contraception and STDs.
2. Promote skills for communicating about sexual issues
3. Discuss healthy intimate relationships and sexual identity
4. Discuss exploitation, date rape and other situations of vulnerability with adolescents and parents.
5. Promote problem solving:
 - discuss the anticipation and the development of strategies to handle risky situations (eg. considerably older dates, use of alcohol)
 - abstinence, "safer" sexual activities
6. Provide demonstrations and instruction on
 - condoms
 - contraception
 - prevention of disease transmission
7. Contraception options: indications, risks and contraindication

C. Recognize, evaluate, manage, know when to refer

1. Adolescents with sign/symptoms/for risk of STD
2. Adolescents with sign/symptoms of pregnancy
3. Adolescents with sign/symptoms or concerns about HIV/aids
4. Concerns/fears related to sexual identity/orientation
5. Domestic/dating violence/exploitation
6. Pregnant adolescent
7. Dysuria/urine + leukocytes

XVI. The Menstrual Cycle

A. Assessment and screening

1. Recognize the menstrual cycle as a vital sign: flag for serious medical conditions
2. Understand and recognize the pubertal progression to menarche
3. Recognize the normal, abnormal and suspicious variations in the menstrual cycle, flow and pain

4. Understand the differences between ovulatory and anovulatory cycles
 5. Understand the importance and obtain the menstrual histories of mothers and sisters
- B. Health promotion
1. Anticipate and provide information about menarche and menstrual cycles
 2. Provide guidance about tampon use
- C. Recognize, evaluate, manage and know when to refer
1. Irregular periods
 2. 1° and 2° amenorrhea
 3. Delayed menarche
 4. Vaginal discharge
 5. PCOs
 6. Dysmenorrhea
 7. Pregnancy

XVII. Tobacco Use

- A. Assessment and Screening
1. Assess risk factors for use and those associated with use
 2. History of use should include types of tobacco and patterns of use (tobacco use questionnaire)
 3. Recognize signs of tobacco use that may present on physical examination
 4. Assess users willingness to quit
 5. Assess adolescent's knowledge/attitudes about the effects of tobacco use, passive exposure
- B. Health promotion
1. Positive reinforcement (health & social benefits) for nonuser
 2. Discuss risk/social disadvantages
 3. Discuss strategies to resist use
 4. Be aware/support office/community/school smoking prevention efforts. Know about efficacies of interventions
 5. Be able to discuss strategies for quitting including information about available cessation programs
- C. Recognize, evaluate, manage, refer
Medical conditions or exacerbations due to use
1. oral changes
 2. asthma/cough
 3. other substance use
 4. reflux
 5. physical activity/performance
 6. respiratory illnesses

XVIII. Goal: Substance Use

- A. Assessment and screening
1. Understand risk factors for use (see Goal XVII tobacco use)

(including alcohol and those associated with use

- family factors
- peer factors
- individual factors
- availability
- morbidities/mortality
- social consequences
- “self-medicating”

2. Use structured interview, questionnaire and trigger questions to gather information about an adolescent’s attitudes and use of substances
3. Use of CRAFFT
4. Be aware of chosen substance(s) of use, patterns and trends, methods, and associated signs and symptoms (systemic complaints) and consequences of use. (eg. inhalants, alcohol, marijuana, OTC methamphetamines)
5. Role of drug screens
6. Discuss appropriate use of OTC

B. Health promotion tobacco use

1. parallel goal XVII.B
2. strategies to handle/avoid risky situations
3. Discuss consequences (eg. date-rape, fetal alcohol syndrome)
4. Support initiatives that strengthen residency, promote assets, school connectedness and self esteem
5. Discuss performance enhancing substances

C. Recognize, evaluate, manage and know when to refer

1. substance use problem
2. related injuries
3. systemic/somatic complaints
4. physical findings
5. consequences
6. co-morbidities

XIX. Depression/Suicide/Bereavement/OCD

A. Assessment and screening

1. Know the main characteristics (symptoms and behavioral changes) of depression, bereavement, and OCD
2. Identify teens at risk and those exhibiting adverse consequences utilizing
 - a. structure interview, questionnaires and trigger questions
 - b. review of systems to screen for associated somatic complaints
 - c. behavioral history to screen for associated behaviors
 - d. family/social history
 - e. determine assets/support system
 - individual
 - family
 - social
 - f. recognize signs/symptoms of psychosis
 - g. utilize variety of interview skills
 - open ended
 - clarification
 - restatement
 - listening time
3. know about-recognize co-morbidities

4. become familiar with Columbia Teen Screen
5. know about and recognize risks and protectors for suicide
6. know about Pediatric Symptom Checklist-17
7. know about modified Patient Health Questionnaire – 9
8. understand concept of “connectedness”

B. Recognize, evaluate, manage or know when to refer

1. suicidal adolescent
 - a. know how to access emergency help
2. recognize risk factors that can complicate grief
3. role of pharmacotherapy and Cognitive Behavior Therapy (CBT) for treatment of depression and OCD
4. understand the steps in cognitive restructuring, a key principle of Cognitive Behaviors Therapy (CBT)
5. know about the common pharmaco therapeutic drugs: indications and side effects
 - a. be aware of black box warnings
 - b. know about the FDA med watch website
6. know about referral resources accessible to patients in your practice
7. know about community/school assets to strengthen the adolescent support system

XX. Dermatological conditions

A. Recognize, evaluate, manage and know when to refer

1. acne
2. hirsutism
3. atopic dermatitis
4. contact dermatitis
5. seborrhea
6. psoriasis
7. dermatophytoses
8. piercings, tattoos
9. hydradenitis suppurativa
10. staphylococcal skin infections
11. hair loss
12. neurocutaneous syndromes
 - a. tuberous sclerosis
 - b. neurofibromatosis

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3. Association of Pediatric Program Directors
4. Pediatric RRC, January 2006
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