

The University of Arizona Pediatric Residency Program

Primary Goals for Rotation

Outpatient Pediatrics

1. **GOAL:** Evaluate and manage common signs and symptoms associated with the practice of pediatrics in the Primary Care Pediatric Outpatient Department.
2. **GOAL:** Recognize and manage common childhood conditions presenting to the Primary Care Pediatric Outpatient Department.
3. **GOAL:** Utilize common diagnostic tests and imaging studies appropriately in the outpatient department.
4. **GOAL:** Understand how to use physiologic monitoring and special technology in the Primary Care Pediatric Outpatient Department, including issues specific to care of the chronically ill child.
5. **GOAL:** Demonstrate high standards of professional competence while working with patients in the continuity and outpatient setting.

1. GOAL: Evaluate and manage common signs and symptoms associated with the practice of pediatrics in the Primary Care Pediatric Outpatient Department.

A. Evaluate and manage the following signs and symptoms that present in the context of health care promotion:

1. Infancy: malpositioning of feet, hip clicks, skin rashes, birthmarks, jitteriness, hiccups, sneezes, wheezing, heart murmur, vaginal bleeding and/or discharge, foul smelling umbilical cord with/without discharge; undescended testicle, breast tissue, breast drainage, malpositioning of feet, malrotation of lower extremities, developmental delays, sleep disturbances, difficulty feeding, dysconjugate gaze, failure to thrive, frequent infections, abnormal head shape or size, evidence of abuse or neglect, abdominal masses, abnormal muscle tone
2. General: Acute life-threatening event (ALTE), constitutional symptoms, excessive crying, failure to thrive, fatigue, fever, weight loss or gain, dental caries, excessive thumb-sucking or pacifier use, sleep disturbances, difficult behaviors, variations in appetite, variations in toilet training, overactivity, somatic complaints, poor school performance, attention problems, fatigue, masturbation, anxiety, violence
3. Cardiorespiratory: Apnea, chest pain, cough cyanosis, dyspnea, heart murmur, hemoptysis, hypertension, inadequate respiratory effort, respiratory failure, rhythm disturbance, shortness of breath, stridor, syncope, tachypnea, wheezing
4. Dermatologic: Congenital nevus and other birth marks, ecchymoses, edema, paleness, petechiae, pigmentary changes, purpura, rashes, urticaria, vascular lesions, foul smelling umbilical cord
5. EENT: Acute visual changes; dysconjugate gaze; conjunctival injection; ear or eye discharge; ear, throat, eye pain, edema, epistaxis; nasal foreign body; hoarseness; stridor
6. Endocrine: growth disturbance, short stature, heat or cold intolerance, normal and abnormal timing of pubertal changes, polydipsia, polyuria
7. GI/Nutrition/Fluids: Abdominal pain, mass or distention; ascites; constipation; dehydration; diarrhea; dysphagia; encopresis; hematemesis; inadequate intake of calories or fluid; jaundice; melena; obesity; rectal bleeding; regurgitation; vomiting
8. Genitourinary/Renal: Change in urine color, dysuria, edema, enuresis, frequency, hematuria, oliguria, pain referable to the urinary tract, scrotal mass, pain or edema, trauma to urinary tract or external genitalia, undescended testicle, enuresis
9. GYN: Asymmetry of breast development, abnormal vaginal bleeding, pelvic or genital pain, vaginal discharge or odor; vulvar trauma or erythema, delayed onset of menses, missed or irregular periods
10. Hematologic/Oncologic: Abnormal bleeding, bruising, hepatosplenomegaly, lymphadenopathy, masses, pallor
11. Musculoskeletal: Malpositioning of feet, malpositioning of legs, hip clicks, abnormal gait, abnormal spine curvature, arthritis or arthralgia, bone and soft tissue trauma, limb or joint pain, limp, variations in alignment (e.g., intoeing)

12. Neurologic: Delays in developmental milestones, ataxia, change in sensorium, diplopia, headache, head trauma, hearing concerns, gait disturbance, hypotonia, lethargy, seizure, tremor, vertigo, visual disturbance, weakness
13. Psychiatric/Psychosocial: Acute psychosis, anxiety, behavioral concerns; conversion symptoms, depression, hyperactivity, suicide attempt, suspected child abuse or neglect

2. GOAL: Recognize and manage common childhood conditions presenting to the Primary Care Pediatric Outpatient Department.

- A. Evaluate and manage the common conditions and situations presenting in the context of health promotion visits.
 1. Infancy: Breast feeding, bottle feeding, colic, congenital hip dislocation, constipation, strabismus, colic, parent-infant interactional issues, sleep problems, child care decisions, separation protest, stranger anxiety, failure to thrive, recurrent respiratory and ear infections, positional foot deformities, rashes, teething, injury prevention and safety
 2. General: Colic, failure to thrive, fever, overweight, iron deficiency, lead exposure, strabismus, hearing problems, child care decisions, well-child and well adolescent care (including anticipatory guidance), parental issues (financial stress, divorce, depression, tobacco, alcohol or substance abuse, domestic violence, inadequate support networks)
 3. Allergy/Immunology: Allergic rhinitis, angioedema, asthma, food allergies, recurrent infections, serum sickness, urticaria
 4. Cardiovascular: Bacterial endocarditis, cardiomyopathy, congenital heart disease (outpatient management of minor illnesses), congestive heart failure, heart murmurs, Kawasaki disease, palpitations, rheumatic fever
 5. Dermatology: abscess, acne, atopic dermatitis, cellulitis and superficial skin infections, impetigo, molluscum, tinea infections, viral exanthems, verruca vulgaris, other common rashes of childhood and adolescence
 6. Endocrine/Metabolic: Diabetes mellitus, diabetes insipidus, evaluation for possible hypothyroidism, growth failure or delay, gynecomastia, hyperthyroidism, precocious or delayed puberty
 7. GI/Nutritional: Appendicitis, bleeding in stool, constipation, encopresis, foreign body ingestion, gastroenteritis, gastroesophageal reflux, hepatitis, inflammatory bowel disease, nutritional issues, obesity, pancreatitis
 8. GU/Renal: Electrolyte and acid-base disturbances (mild), enuresis, glomerulonephritis, hematuria, Henoch Schonlein purpura, nephrotic syndrome, obstructive uropathy, proteinuria, undescended testicles, UTI/pyelonephritis
 9. Gynecologic: Genital trauma (mild), labial adhesions, pelvic inflammatory disease, vaginal discharge or foreign body
 10. Hematology/Oncology: Abdominal and mediastinal mass (initial work up), anemia, hemoglobinopathies, leukocytosis, neutropenia, thrombocytopenia

11. Infectious Disease: Cellulitis, cervical adenitis, dental abscess with complications, initial evaluation and follow-up of serious, deep tissue infections, laryngotracheobronchitis, otitis media, periorbital and orbital cellulitis, pharyngitis, pneumonia (viral or bacterial), sinusitis, upper respiratory tract infections, viral illness, recurrent infections
12. Musculoskeletal: Apophysitides, femoral retro- and anteversion, fractures, growing pains, hip dysplasia, limp, metatarsus adductus, sprains, strains, tibial torsion
13. Pharmacology/Toxicology: Common drug poisoning or overdose, ingestion avoidance (precautions)
14. Neurology/Psychiatry: Acute neurologic conditions (initial evaluation), behavioral concerns, discipline issues, temper tantrums, biting, developmental delay, seizures (evaluation and adjustment of medications), ADHD, learning disabilities, substance abuse
15. Pulmonary: Asthma, bronchiolitis, croup, epiglottitis, pneumonia; sinusitis, tracheitis, viral URI and LRI
16. Surgery: Initial evaluation of patients requiring urgent referral, pre- and post-op evaluation of surgical patients (general, ENT, ortho, urology, neurosurgical, etc.)

3. GOAL: Utilize common diagnostic tests and imaging studies appropriately in the outpatient department.

A. Demonstrate understanding of the common diagnostic tests and imaging studies used in the outpatient setting, by being able to:

1. Explain the indications for and limitations of each study.
2. Know or be able to locate age-appropriate normal ranges (lab studies).
3. Apply knowledge of diagnostic test properties, including the use of sensitivity, specificity, positive predictive value, negative predictive value, likelihood ratios and receiver operating characteristic curves, to assess test utility in clinical settings.
4. Recognize cost and utilization issues.
5. Interpret the results in the context of the specific patient.
6. Discuss therapeutic options for correction of abnormalities.

B. Use appropriately the common laboratory studies in the Outpatient setting:

1. CBC with differential, platelet count, RBC indices
2. Blood chemistries: electrolytes, glucose, calcium, magnesium, phosphate
3. Hemoglobin A1C
4. Cholesterol
5. Renal function tests
6. Tests of hepatic function (PT, albumin) and damage (liver enzymes, bilirubin)
7. Serologic tests for infection (e.g., hepatitis, HIV)
8. CRP, ESR
9. Routine screening tests (e.g., neonatal screens, lead)
10. Wet preps and skin scrapings for microscopic examination, including scotch tape test for pinworms
11. Tests for ova and parasites
12. Thyroid function tests
13. Culture for bacterial, viral, and fungal pathogens, including stool culture

14. Urinalysis
15. Gram stain
16. Developmental, behavioral and depression screening tests

C. Use the common imaging, diagnostic or radiographic studies when indicated for patients evaluated in the Outpatient Pediatric Clinic:

1. Plain radiographs of the chest, extremities, abdomen, skull, sinuses
2. CT, MRI, angiography, ultrasound, nuclear scans (interpretation not expected) and contrast studies when indicated
3. Bone age films
4. Electrocardiogram and echocardiogram
5. Skin test for tuberculosis

4. GOAL: Understand how to use physiologic monitoring and special technology in the Primary Care Pediatric Outpatient Department, including issues specific to care of the chronically ill child.

A. Demonstrate understanding of the monitoring techniques and special treatments commonly used in the Pediatric Outpatient Department:

1. Discuss indications, contraindications and complications.
2. Demonstrate proper use of technique or treatment for children of varying ages.
3. Interpret results of monitoring based on method used, age and clinical situation.

B. Appropriately use the monitoring techniques commonly used in the Pediatric Outpatient Department:

1. Cardiac monitoring
2. Pulse oximetry
3. Repeated assessment of temperature, heart rate, respiratory rate, blood pressure, as clinically indicated during an office visit

C. Use appropriately or be familiar with the following treatments and techniques in the Pediatric Outpatient Department:

1. Universal precautions
2. Hand washing between patients
3. Isolation techniques
4. Administration of nebulized medication
5. Injury, wound and burn care
6. Oxygen delivery systems
7. Intramuscular, subcutaneous and intradermal injections

D. Recognize normal and abnormal findings at tracheostomy, gastrostomy, or central venous catheter sites, and demonstrate appropriate intervention or referral for problems encountered.

E. Demonstrate skills for assessing and managing pain.

1. Use age-appropriate pain scales in assessment.
2. Describe indications for and use of behavioral techniques and supportive care, and other non-pharmacologic methods of pain control.

5. GOAL: Demonstrate high standards of professional competence while working with patients in the continuity and outpatient setting.

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 outpatients, applying principles of evidence-based decision-making and problem-solving.

2. Provide sensitive support to patients and their families in the outpatient setting.

3. Provide effective preventive health care and anticipatory guidance to patients and families in continuity and outpatient settings.

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 knowledge needed for care of children in the continuity and general ambulatory setting.

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

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. Provide effective patient education, including reassurance, for conditions common to the outpatient setting.

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 and other professionals.

4. Maintain accurate, legible, timely, and legally appropriate medical records in this clinical 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 outpatient care, and adapt them to the individual needs of specific patients.

2. Work with health care team members to assess, coordinate, and improve patient care in the outpatient setting.

3. Establish an individual learning plan, systematically organize relevant information resources for future reference, and plan for continuing acquisition of knowledge and skills.

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 staff and professional colleagues.
3. Adhere to ethical and legal principles and be sensitive to diversity.

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 (e.g., public and private insurance) as they apply to the primary care provider, such as the role of the PCP in decision-making, referral, and coordination of care.
2. Demonstrate sensitivity to the costs of clinical care in the outpatient setting, and take steps to minimize costs without compromising quality.
3. Recognize and advocate for families who need assistance to deal with system complexities, such as lack of insurance, multiple medication refills, multiple appointments with long transport times, or inconvenient hours of service.
4. Recognize one's limits and those of the system; 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. Abscess: I & D of superficial abscesses
2. Abscess: aspiration
3. Bladder: catheterization
4. Conjunctival swab
5. Ear: cerumen removal
6. Eye: eyelid eversion
7. Eye: patch
8. Eye: fluorescein eye exam
9. Foreign body removal (simple): nose
10. Foreign body removal (simple): ear
11. Foreign body removal (simple): subcutaneous
12. Ingrown toe nail treatment
13. Inguinal hernia: simple reduction
14. Intravenous line placement
15. Liquid nitrogen treatment for molluscum/warts
16. Lumbar puncture
17. Medication delivery: inhaled
18. Medication delivery: IV
19. PPD: placement
20. Pulmonary function tests: peak flow meter
21. Pulse oximeter: placement
22. Rectal swab
23. Reduction of nursemaid elbow
24. Skin scraping

25. Sterile technique
26. Subungual hematoma: drainage
27. Suctioning: nares
28. Suctioning: oral pharynx
29. Throat swab
30. Tooth: temporary reinsertion
31. Urethral swab
32. Venipuncture
33. Wood's lamp examination of skin

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. ECG: emergency interpretation
2. ECG: perform
3. PPD: interpretation
4. Monitoring interpretation: pulse oximetry
5. Radiologic interpretation: abdominal X-ray
6. Radiologic interpretation: chest X-ray
7. Radiologic interpretation: extremity X-ray
8. Radiologic interpretation: sinus films
9. Tympanometry evaluation: interpretation
10. Vision screening

Adapted From

Kittredge, D., Baldwin, C. D., Bar-on, M. E., Beach, P. S., Trimm, R. F. (Eds.). (2004). APA Educational Guidelines for Pediatric Residency. Ambulatory Pediatric Association Website. Available online: www.ambpeds.org/egweb.