

CLINICAL PROBLEMS FOR 2002-2003

Introduction:

These clinical problems translate the objectives and competencies of the curriculum into real life patient encounters that students can expect in a general pediatric clerkship. The brief clinical vignettes represent typical presenting complaints or questions encountered in pediatric practice and parallel the content areas of the pediatric curriculum. The vignettes have been kept brief to serve as "triggers", giving only enough detail to direct further investigation or discussion. The clinical problems are designed to stimulate discussion of appropriate differential diagnoses, initial evaluation and management, and anticipatory guidance and counseling. Vignettes have been grouped into the same chapters as the National Core Curriculum although some overlap exists. For example, the topic of "prevention" is applicable to several of the chapters not just the Prevention chapter.

This clinical problem set can be used in a variety of ways. A clerkship director may use only a few of these problems or the entire set. Faculty can use them to stimulate group discussion about specific curricular objectives. Selected problems or the entire set can be used when developing a program of student self-directed learning. Importantly, the problems are not designed to provide an exhaustive overview of the pediatric clerkship experience but to supplement the student's clinical experience. The current format of clinical problems has not been developed for use in a final clerkship evaluation. In order to use these clinical problems for examination purposes the clerkship director will need to expand the clinical scenario, define the questions further and develop a key of acceptable answers for different grading levels.

COMSEP Curriculum Task Force members met in Nashville, TN during the 2002 annual meeting to review, revise, and update the 1995 clinical problem set. This version represents the first step in the revision process. While task force members strove to ensure style consistency and careful linkage to National Core Curriculum objectives, errors or omissions are likely. The Curriculum Task Force envisions that the clinical problem supplement as a "living document," one that is subject to constant revision and review as errors are corrected, new issues arise, or new data accumulate. The Curriculum Task Force will continuously monitor this document and post revised editions yearly.

Professional Conduct and Attitudes

1. In a crowded elevator a fellow medical student begins discussing a fascinating patient that he had seen earlier in the day. How would you respond?
2. While on attending rounds with the Pediatric Clerkship director (who assigns the final grade for the rotation), you are asked if one of your patients has been febrile during the past 24 hours. You cannot remember if the patient has been afebrile or not. What should you tell the attending?
3. You and two other students are alone waiting for attending rounds to begin. One of the students makes a racist remark about a patient he had seen earlier in the day. What should your response be?
4. During a routine health care supervision visit, a sixteen-year old girl confides to you confidentially that she has been sexually active, has tried marijuana, and on a few occasions snorted cocaine. That evening her mother calls you. She is very concerned about her daughter's behavior and demands to know if the daughter is using drugs or having sex. What are your ethical and legal obligations? What would you tell the mother?
5. The mother of a six-year-old boy is upset that you examined his testicles and penis during a well-child examination. She feels that this part of the examination is private and best left to family discussions. What would you say to her?
6. Brothers aged 10 and 16 present for a routine health care supervision visit with their mother. How would you interview these patients? How would your interview strategy or questions differ?
7. After informing the mother of a two-year-old infant that the child has a viral infection, the mother demands antibiotic for the child. How would you respond?
8. A previously healthy 16 year-old girl presents for a routine health care supervision visit with her mother. When you ask the mother to leave the room, she refuses. How would you approach this situation?
9. The clerkship director has scheduled a mandatory meeting with all the students on the rotation to discuss the final examination. Just before the meeting time, a sixteen-year old girl with cystic fibrosis whom you have been following on the ward says that she needs to talk with you right away and begins to cry. What should you do?
10. During bedside attending rounds, a girl admitted the previous night with a diagnosis of cellulitis is diagnosed with pernio. The mother requests more information about this topic. What would you do? What resources are available?

Health Supervision

1. What advice would you give first-time parents of a two-day old infant regarding feeding, sleeping, and general care of their new baby? When should they expect to see you for “routine care”?
2. A healthy ten month old is starting to “cruise.” What advice would you give to parents to make their house safe?
3. A fifteen-month-old child is seen for “routine care”. He is due to receive his MMR. On exam he has a temperature of 99 F and a runny nose. Should he still be immunized? What are the contraindications to immunization?
4. A twelve-month-old child has been taking 2 mg/kg/day of oral prednisone for the past two weeks for asthma. He is due for his routine immunizations. Would you modify his immunization schedule and if so, why?
5. In the nursery, parents are informed that blood tests need to be drawn from their newborn for “screening tests”. Describe to the parents what these are and why they are performed.
6. A five-year old boy is seen in your clinic for a pre-kindergarten exam. Why would you perform a vision and hearing test?
7. A two-month old girl is brought to the office for a well child examination. The mother is concerned about the potential complications of immunizing her child. How would you address this issue with the mother?
8. A four-month old boy is seen for a well child examination. Following his first set of immunizations he had a temperature of 103 for a day and extreme irritability. The parents are concerned about giving the second set of immunizations. How would you address their concerns? Can he be immunized today?
9. The parents of a previously healthy nine-month-old girl want to know why a hemoglobin level was drawn on her and what will be done with that information. How would you answer their concerns?
10. The parents of a previously healthy three-year-old boy would like their son tested for tuberculosis. What are the indications for tuberculosis testing?
11. The parents of a 14-month-old girl feel that she is not developing at the same pace as her older brother. How would you evaluate her development? What tools are available for developmental screening?
12. The mother of a twelve-month old girl living in a house built four years ago wants to know why her daughter should undergo lead testing. How would you respond to her concerns?

Growth And Development

1. A three-month-old full-term infant has gained 15 ounces (420 gm) since birth. Her height velocity is normal. Her parents want to know if this is adequate. What would you tell them?
2. A fifteen-month-old boy says no recognizable words. His parents are concerned and wonder if he needs speech therapy. How would you respond to their concern?
3. An infant rolled over at four months and sat with assistance at six months, but at one year he is unable to stand or sit alone. His parents are quite concerned and ask if this is normal. Explain your answer.
4. The parents of a nine-month-old infant are concerned because she is not sitting. She has increased tone and scissoring of her lower extremities. She can grasp a rattle, but does not reach for objects. She coos and has a social smile. What would you tell her parents?
5. A six-month-old has a head circumference in the 50th percentile, height in the fifth percentile, and weight in the fifth percentile (baby was at 50th percentile for all measurements at three months). How would you evaluate this child?
6. The parents of a fourteen-month-old boy born at 30 weeks gestational age are concerned he is not walking. He sat alone at nine months and says two to three words in addition to Mama and Dada. How would you counsel these parents?
7. The mother of a ten-year-old girl wants to know when she might start her periods. What would you tell her?
8. A twelve-year-old boy complains that he is the shortest person in his class. He is 54 inches tall. He wants to know if he should take a "growing medicine". What additional information do you need from the history and physical examination before counseling him regarding his growth potential?
9. The parents of an eight-year-old girl want to know how tall she will be. She has consistently been at the 25% for age for both height and weight for the past four years. What would you tell her? What additional family information may modify your response?
10. A six-month old infant is seen for a well child examination. His height and weight have remained at the 25% but his OFC has gone from the 25% to greater than the 95% over the past four months. What would you be most concerned about? How would you evaluate this child?

Behavior

1. The parents of a three-year-old boy are concerned that he is not yet toilet trained. How would you counsel them?
2. A sixteen-month-old has had several episodes of breath holding and cyanosis that leave him limp for a few seconds. They occur when he is angry or upset. What is the most likely diagnosis? How would you counsel the parents?
3. The parents of a three-month-old girl are surprised that she is not yet sleeping through the night. What would you tell them?
4. A seven-year-old boy is still wetting the bed at night. How would you evaluate the patient and counsel him and the family?
5. The parents of a two-year-old are concerned because he "refuses to eat". How would you evaluate him and counsel his family?
6. A fifteen-year-old boy who had been an honor student is reported for truancy. He seems withdrawn from his parent and friends. He quits the soccer team after a fight with his coach. Describe your approach to the evaluation of this child.
7. The parents of a seven-year-old boy receive a call from the child's teacher because he is having difficulty following directions and behaving in class. She feels he has a short attention span. How should you proceed?
8. Her parents bring a fourteen-year-old girl to the clinic after running away from home two days after an argument with them. How would you evaluate this patient? Describe the confidentiality issues that may arise.
9. A seven-year-old girl complains of a stomachache several times a week, often keeping her home from school. It is not associated with vomiting, diarrhea, or fever. How would you evaluate this child?
10. The mother of a ten-month-old girl is concerned because whereas she used to go contentedly to the baby-sitter, she now cries when her mother leaves. What would you tell her mother?
11. After being hospitalized for pneumonia a three-year-old girl begins to wet her pants, talk "baby talk", and ask for the bottle. Her parents are quite distressed and seek your advice. How would you counsel them?
12. The parents of a two-year-old ask how to control their son's temper tantrums. Describe how you would address this situation and what advice you would give.

Nutrition

1. Parents of a newborn infant want to know the advantages and disadvantages of breast-feeding compared to bottle-feeding. How would you counsel them?
2. A mother who is unable to breast-feed because of breast reduction surgery wants to know what types of formula are available and which would be appropriate for her child. How would you counsel her?
3. A healthy 4-month-old breast-fed child presents for a well-child examination. The parents want to know when he can begin solid foods and when he should be weaned from breast milk. How would you counsel them?
4. A mother is concerned that her 5-day-old infant is not breast-feeding well. What historical or physical examination findings would help you investigate her concerns? What additional resources may be available to help support this mother?
5. A healthy two-month-old infant is seen in your office for a routine visit. The mother asks about the need for vitamin and fluoride supplementation in her child. Discuss which supplements should be considered and at what age.
6. A five-year-old boy is now at the 95% for weight and 50% for height whereas previously he had been at the 50% for both height and weight. How would you counsel him and his family? Include the consequences of child hood obesity in your discussion.
7. A thirteen-year-old girl wants to “go on a diet”. Her birthday was last week. Her current weight is 45 kg, and height is 157 cm. How would you evaluate and counsel her?
8. The health conscious parents of a 15-month-old child ask if they can switch her to nonfat milk, as they are concerned about obesity and heart disease. How would you counsel them?
9. A two month old born at term weighing 3.3 kg presents for a well child visit. Today his weight is 4.0 kg, length 56 cm, and head circumference is 39 cm. He is taking four ounces of Enfamil with iron every 3-4 hours. How would you evaluate whether this intake is adequate?
10. A 9 month old is drinking formula. Her parents ask if they can change from formula to cow’s milk as they could save a lot of money. How would you counsel them?
11. An 18 month old is drinking 48 ounces of whole milk a day. Is this appropriate? How would you discuss this with the parents?
12. A 15-year-old wrestler comes in for an annual visit and wants to know your views on supplements and vitamins. How would you evaluate and counsel him?
13. In evaluating an 8-year-old child on routine physical exam, you discover that there is a strong family history of diabetes and the father had a heart attack at age 35. How would you counsel the patient and his family?

Prevention

1. Three brothers ages 1, 10, and 16 present for a routine health care supervision visit. What anticipatory guidance would you give each? How does anticipatory guidance regarding injury prevention change with age?
2. During a routine office visit, the father of a six-year-old boy states that he recently purchased a new shotgun for hunting. What questions would you consider asking the father about storing the gun? What advice would you give to help prevent an accidental injury?
3. A sixteen-year-old girl presents for a routine health care supervision visit. She has had two sexual partners and has used birth control inconsistently. What advice would you give to help prevent a sexually transmitted disease or pregnancy?
4. A ten-year-old boy is seen with a severe headache after falling from his bicycle. He was not wearing a helmet. What advice would you give him?
5. A nine-month-old boy is seen for a routine health care supervision visit. The parents want to know what types of foods he can eat. What foods should he not be offered?
6. The parents of a newborn want to know why the infant has to face backwards in the car seat and ride in the back seat of the car. What would you say to them?
7. The parents of a two-month-old girl want to know why their child has to be immunized. None of their friends, family members, or neighbors has ever had hepatitis B virus infection, tetanus, diphtheria, or polio. What would be your response?
8. A nine-year-old boy has been at the 95% for weight or more for the past three years and at the 10% for height during this same time. What are the long-term health consequences of this condition? How would you counsel the patient and the family?
9. A 12-year-old girl is presents for a pre-participation sports physical examination. What are the key components of the “sports” history and physical examination?
10. The parents of a newborn are concerned about Sudden Infant Death Syndrome and have purchased a baby alarm. What advice would you give them to help prevent SIDS in their infant?

Issues Unique to Adolescence

1. A fourteen-year-old female is seen in the clinic with her mother for acute onset of dysuria and urinary frequency. How would you evaluate and manage this patient?
2. His parents bring a fifteen-year-old boy to your clinic, after he threatened to "take a bunch of pills". Although he seems depressed in affect, he is not currently suicidal. Explain your approach to this young man, including important history, physical exam findings, diagnostic studies, management principles and advice to his parents.
3. A seventeen-year-old female sees you for a pre-college physical. Describe your approach to history, physical exam, and guidance/counseling.
4. A sixteen-year-old boy presents to your clinic with polyuria and weight loss over the past three weeks. Describe the important aspects of the history and physical exam, diagnostic considerations, differential diagnosis, and basic management principles.
5. The mother of a thirteen-year-old female expresses concern that her daughter has not yet had the onset of menses. How would you counsel her?
6. A sixteen-year-old male presents with fever, fatigue, and sore throat for four days. Discuss what aspects of physical exam and lab data will help establish a diagnosis.
7. A fourteen-year-old female well known to your practice makes an appointment to see you alone regarding a desire for contraception. What advice would you give her? What are her rights to confidentiality? What are your responsibilities to inform her parents?
8. A seventeen-year-old female presents to Teen-OB clinic for prenatal care. What screening tests should be performed?
9. A fourteen-year-old male presents for a football sports physical. What are the important points to cover in the history and physical exam?
10. Late one Sunday night, his parents bring a previously healthy fifteen-year-old male to you after he returned home from a party confused and combative. Describe your approach to this clinical problem.
11. A fifteen-year old boy is concerned that he is not yet developing facial hair and is now considerably shorter than most of his peers. How would you evaluate and counsel him?
12. A sixteen-year old girl presents with fever and lower abdominal pain but denies urinary urgency or frequency. She is sexually active and uses condoms infrequently. How would you evaluate this patient?

Issues Unique to the Newborn

1. A newborn has an APGAR score of 5 at one minute and 9 at five minutes. What are the components of the APGAR score? How is the APGAR score used?
2. A 6-hour-old infant born at term is persistently tachypneic with respiratory rates in the 80's. What additional information would be helpful in evaluating the infant? Discuss the diagnostic considerations and initial approach to the evaluation of this child.
3. A full-term infant appears yellow at 48 hours of age. The total bilirubin is 13 mg/dl. What components of the history, physical examination, and laboratory data would be helpful in your evaluating this child?
4. An otherwise thriving 14-day-old infant appears yellow. What additional history and evaluation would be important in assessing this infant?
5. A 24-hour-old infant has not yet stoolled. Discuss the possible explanations and your concerns.
6. The mother of a newborn infant asks your advice about why she should breast-feed her infant. She will need to return to work in 8 weeks and wonders if she should just bottle feed. How would you counsel her?
7. A term newborn weighs 4800 grams. What components of the history and physical examination would be helpful in your assessment? What immediate complications might this infant experience?
8. A mother with no prenatal care and a history of known substance abuse has just delivered a baby. What special medical and social concerns do you have about caring for this infant?
9. The parents of a newborn boy ask your opinion about whether the baby should be circumcised. What should you consider in counseling these parents?
10. Outline the anticipatory guidance you would give the parents of a healthy, full-term first born infant at the time of discharge home from the newborn nursery.
11. The breast-feeding mother of a 4-week-old infant is concerned that her baby is not gaining enough weight. Her mother-in-law has encouraged her to start formula supplements. The baby's birth weight was 7lb 8oz. His current weight is 9lb. How would you evaluate this infant and counsel the mother? What cultural beliefs might be important to discuss?
12. A full term newborn weighs 2000 grams. What factors might have contributed to this infant's small size? How do you assess the maturity of this infant?
13. A term female is delivered via c-section because of frank breech presentation. What features of the history and physical examination would support your concern about development hip dysplasia in this child?

Medical Genetics and Dysmorphology

1. A three-year-old girl presents for evaluation of recurrent pneumonia (five times in two years) and chronic diarrhea. She is at the fifth percentile for height and weight. What are your differential diagnoses? Construct a family pedigree as if her aunt (mother's sister) and cousin (mother's brother's child) have the same condition.
2. A newborn infant has prominent epicanthal folds, small ears, hypotonia, short, broad hands and feet, brachycephaly, and a heart murmur. The mother notes that the baby "looks different" than her two previous children. How would you evaluate this infant and counsel the mother?
3. The parents of a two-year-old boy with developmental delay report a history of mental retardation in several male members of their family. What are your differential diagnoses and what diagnostic screening would you recommend?
4. A 16 year-old girl presents with primary amenorrhea. She has been doing well at school but is not athletic and her height is less than the 5% for age. On physical examination, she has redundant neck skin and broadly spaced nipples. How would you evaluate and counsel this her?
5. The mother of a newborn tells you she has taken phenytoin throughout her pregnancy and wants to know what effect this may have on her baby. How would you counsel the mother?
6. You are asked to evaluate a baby in the nursery who is small for gestational age and microcephalic. How would you evaluate the infant? What questions would be important to ask the mother?
7. A mother of a two-year-old child with sickle cell disease is pregnant and wants to know the likelihood that this child will have sickle cell disease. How would you counsel her?
8. The pregnant mother of one of your patients calls to say that a prenatal ultrasound revealed that her fetus might have spina bifida. She wants to know the implications of the disease. How would you counsel her? Should any special precautions be taken at the time of delivery and in neonatal period?

Common Acute Pediatric Illnesses

SYMPTOMS

Cough

1. A twelve-year-old child presents with a three-day history of cough, chest pain and fever of 101 F. Exam reveals diffuse bilateral crackles. A CXR shows diffuse interstitial markings. Discuss your differential diagnosis. How would you evaluate and manage this patient?
2. A six-week-old afebrile infant with a history of conjunctivitis presents with a staccato cough and tachypnea. Exam reveals bilateral crackles and mild reactions. A CXR shows patchy densities and hyperinflation. Discuss your differential diagnosis. How would you evaluate and manage this patient?
3. A six-month-old former 28-week premature infant presents with URI symptoms, cough, and poor oral intake. She is tachypneic with retractions and diffuse crackles and wheezes. A CXR shows bilateral perihilar streakiness and hyperinflation. Discuss your differential diagnosis. How would you evaluate and manage this patient?
4. A four-year-old presents with a cough for 3-4 days following a URI and fever to 104 F for twenty-four hours. Exam reveals crackles on the right. What would you expect the CXR to show? Discuss your differential diagnosis. How would you evaluate and manage this patient?
5. A two-year-old child presents with abrupt onset of cough, wheeze and tachypnea. He is afebrile. Exam reveals diminished air exchange and wheezing on the right. What is the most likely cause of this patient's findings?
6. A one-month-old infant with a one-week history of cough and congestion now presents with paroxysms of cough associated with blue spells. He is afebrile with a normal examination between paroxysms of coughing. A CXR is normal. Discuss your differential diagnosis. How would you evaluate and manage this patient?
7. A seven-year-old presents with two weeks of cough and nasal congestion following a URI. The cough is worse at night and frequently awakens him. His mother says he has also developed "bad breath". What are your differential diagnoses and how would you manage this patient?
8. An eleven-year-old presents with frequent episodes of a coughing illnesses often triggered by colds. What is the most likely diagnosis? How would you manage this patient?
9. A sixteen year old presents with cough and shortness of breath following exertion. This is affecting his ability to play soccer. What is the most likely diagnosis? How would you manage this patient?
10. A previously healthy fully immunized two-year old boy presents to the emergency room at midnight following the sudden onset of a barking cough and increased work of breathing. What is the most likely diagnosis? How would you manage this patient?

Fever

1. A two-week-old presents with a fever of 101° F. Her exam is unremarkable. What are your concerns? How would you evaluate and manage this patient?
2. A seven-month-old girl presents with a fever to 103°F, mild irritability, and poor feeding. What are your concerns? How would you evaluate and manage this patient?
3. An eight-year-old presents with fevers of 102° F and headache. He has nuchal rigidity. What are your concerns? How would you evaluate and manage this patient?
4. A six-month-old has had a high fever for three days and an otherwise normal exam. On day four he breaks out in an erythematous macular-papular rash shortly after his fever resolves. What is the most likely diagnosis? How would you manage this patient?
5. A seven-year-old girl presents with a history of cough, coryza, conjunctivitis and fever to 103 F now has a macular rash that starts on her face and neck that is spreading to the rest of her body. What are your concerns? How would you evaluate and manage this patient?
6. A 4-year-old boy presents with a five-day history of fever and rash. He has received acetaminophen and amoxicillin without improvement. He is very irritable with a temperature of 103.6° F, bilateral non-purulent conjunctivitis, enlarged cervical nodes, puffy hands, and a maculopapular rash. How would you evaluate and manage this patient?

Sore Throat

1. A six-year-old presents with fever, headache, sore throat, and raised, rough, red rash in his axillae and groin. What is the most likely diagnosis? How would you evaluate and manage this patient?
2. A nine-year-old presents with a sore throat and fever of 101° F. He has small minimally tender anterior cervical lymph nodes and a red pharynx. What is your differential diagnosis? How would you evaluate and manage this patient?
3. A fourteen-year-old female presents with fever, headache and sore throat. She has exudative pharyngitis, enlarged posterior cervical lymph nodes, and splenomegaly. What is your differential diagnosis? How would you evaluate and manage this patient?

Otalgia

1. An eighteen-month-old male with a four-day history of URI symptoms presents with fever, irritability, and pulling at his left ear for the past 24 hours. What is your differential diagnosis? How would you evaluate and manage this patient?

2. A two-year-old has had six episodes of otitis media (which you have diagnosed and treated) over the past seven months. What are the risk factors for recurrent otitis media? What treatment options are available?
3. A fifteen-month-old was treated for acute otitis media three weeks ago. Today his tympanic membrane looks dull, gray, and has poor movement. How would you manage this patient?

Nasal discharge

1. A three-year-old presents with runny nose, mild irritability, with temperatures of 99° F over the past forty-eight hours. Other than clear nasal discharge, his examination is unremarkable. How would you evaluate and manage this child?
2. An eleven-year-old has springtime nasal congestion and itchy eyes which have become more of a problem over the last three years. What is your differential diagnosis? How would you evaluate and manage this child?
3. A sixteen-month-old presents with a history of nasal discharge for the past week presents with a swollen, red eye and fevers to 103° F. What are you most concerned about? How would you evaluate this patient?

Abdominal Pain

1. A ten-month-old presents with bouts of irritability during which he draws up his legs and appears to be in pain. His stools are bloody and he appears lethargic. What is your differential diagnosis? How would you evaluate this patient?
2. A three-year-old has had forty-eight hours of fever, vomiting, and diarrhea. Describe your approach to the differential diagnosis. Discuss management principles based on diagnosis and physical exam findings.
3. A fourteen-year-old male presents with six hours of severe abdominal pain that is now more right sided. He has had no diarrhea. How would you evaluate this patient? How would your approach differ if the patient were a girl?
4. An eight-year-old female presents with abdominal pain, pruritic lesions on the buttocks and lower extremities, and joint swelling. What is your differential diagnosis? How would you evaluate this patient?
5. The mother of a fourteen-month-old baby's feels an abdominal mass while giving her son a bath. What concerns do you have? How would you evaluate this child?
6. The parents of a four-month old boy feel that he is constipated because he squirms and cries while passing stools. How would you evaluate the patient and counsel the parents?

Diarrhea

1. A one-year-old presents with vomiting and diarrhea for three to four days. How would you evaluate and manage this patient?
2. Several children in a daycare center have presented with watery, foul-smelling stools, flatulence and anorexia. How would you evaluate and manage this situation?
3. A six-year-old boy presents with pallor and irritability following a week of abdominal pain and blood tinged diarrheal stools. What would you be most concerned about? How would you evaluate and manage this patient?

Constipation

1. A six-year-old presents with chronic abdominal pain of six weeks' duration and episodic fecal soiling of his underwear. How would you evaluate this patient?

Rashes

1. A four-year-old girl presents to your clinic with a diffuse pruritic rash. She has numerous evanescent raised, erythematous lesions with serpiginous borders and blanched centers. What is the appropriate diagnosis and treatment of this condition?
2. A four-year-old presents with a dry, erythematous, itchy rash in the antecubital and popliteal fossae. Discuss the differential diagnosis and appropriate therapy.
3. An eighteen-month-old presents with many golden-yellow, crusted-weeping lesions around the nose which seem to be spreading according to the child's parents. Discuss the likely diagnosis and management considerations.
4. A five-year-old boy presents following a dog bite on the hand. How would you care for this patient?
5. A fifteen-year old boy is concerned that his acne is worsening. He has multiple open and closed comedones scattered over his face. How would you counsel and treat this patient?

Limb/joint pain

1. A 15-year-old girl badly twisted her ankle while playing basketball earlier in the day. What advice would you give her?
2. An athletic 12-year-old boy complains of pain just below the knee when running and playing soccer. Discuss the possible causes and an approach to the problem.
3. A 14-month-old girl presents with the sudden onset of fever and refusal to walk. Discuss your differential diagnosis and evaluation of this child.
4. A five-year-old presents with a swollen, red knee. Discuss your differential diagnosis and evaluation of this child.

5. A four-year-old presents with a one-week history of multiple joint pain and swelling. Discuss your differential diagnosis and evaluation of this child.

CNS problems

1. A fourteen-year-old girl presents to the ER with a right-sided headache, which she describes as "the worst headache I've ever had." She reports seeing "flashing lights" prior to the onset of the headache. Discuss your initial assessment and treatment of this patient.
2. A nine-year-old boy is sent to the school nurse several times a week for headaches. His mother brings him to the pediatrician for evaluation. Discuss your assessment of this child.
3. A sixteen year old with a history of seizures wants to know if he can get a driver's license. What advice would you give him?

PHYSICAL FINDINGS

Heart murmur

1. On routine physical exam, a five-year-old girl is found to have a heart murmur. How would you distinguish between an innocent and a pathologic murmur?

Lymphadenopathy

1. A ten-month-old girl presents with recurrent pneumonia and failure to thrive. She has thrush and numerous axillary and inguinal nodes. How would you evaluate this patient?
2. A six-year-old, previously healthy, girl presents with a 3 by 5 cm, tender anterior cervical lymph node. What historical and physical examination information is essential to develop an appropriate differential diagnosis?

Splenomegaly

1. A four-year old boy presents with fevers and malaise for a week. He has petechiae, palpable axillary lymph nodes and his spleen is palpated 3 cm below the left cost margin. What is your differential diagnosis? How would you evaluate this patient?
2. A ten-year-old boy with sickle cell disease presents with the sudden onset of pallor and has an enlarged spleen. What would you be most concerned about?

Hepatomegaly

1. A four-year-old child presents with nausea, vomiting, fever and fatigue. On physical exam he has scleral icterus and a tender liver edge palpable 3 cm below the costal margin. Discuss your plan for evaluating this patient.

Possible impaired vision

1. The parents of a four month old are concerned because her eyes cross. What are your concerns? How would you evaluate this patient?
2. You are unable to see a red reflex when examining the eyes of a newborn. Discuss the causes and your approach to the patient.

Impaired hearing

1. The parents of a two-year-old boy are concerned that he is not talking. How would you evaluate the patient and counsel the parents?

Bleeding

1. A previously healthy two-year-old presents with persistent nosebleeds over the past two days and petechiae on her extremities. What is your differential diagnosis? How would you evaluate this patient?
2. On a routine health supervision visit, a 1-year-old boy is found to have an Hgb 8.8, HCT 27%, and a MCV of 68. How would you manage this patient?

Hematuria/Proteinuria

1. A ten-year-old boy complains of "dark urine" and a headache. Discuss your diagnostic approach to this patient.
2. A four-year-old boy is brought to the pediatrician because of "puffy eyes" and sudden weight gain. What is your differential diagnosis and how would you evaluate this patient?
3. A two-year-old girl evaluated for a febrile illness has 1+ ketones and 1+ protein in her urine. Assuming that the remainder of the urinalysis is normal, discuss your assessment.

Chronic Illness and Disability

1. Smoke, dust, and exercise trigger asthma attacks in an 11 year-old-boy with asthma. Both or his parents smoke and he is desperate to play basketball on the school team. Discuss the medical management of this child. How would you negotiate an asthma care plan with the child and family?
2. A 15 year old boy with sickle cell disease is concerned because has not yet developed facial hair and is considerable shorter than his peers. How would you counsel him?
3. A 14-year-old girl with previously well-controlled insulin dependent diabetes mellitus presents in diabetic ketoacidosis for the third time in the past six months. What are the issues that might be adversely affecting her diabetes control?
4. A 17-month old girl is diagnosed with cystic fibrosis after her third hospitalization for pneumonia. Her mother is pregnant. What are the short and long term implications for this girl? What are the implications for the family including the unborn child?
5. A newborn has hypotonia, downward slanting palpebral fissures, a single palmar crease, and an III/VI holosystolic murmur at the mid left sternal border. What would you tell the parents? What are the short-term implications? What are the long-term implications?
6. The parents of an 18-month-old boy are concerned because he is not yet walking. He has lower extremity hypertonia and hyperreflexia. How would you counsel the parents?
7. During routine screening at 14 weeks gestation, the mother of one of your patients is found to be HIV antibody positive. What interventions can be done to minimize perinatal transmission? After delivery, how would you confirm or exclude HIV infection in the infant?

Therapeutics

1. A three-year-old has acute otitis media. She is not allergic to any medications. Which if any antibiotics would you prescribe and why?
2. An eighteen-month-old has purulent conjunctivitis without other findings. How would you manage this patient?
3. A four-year-old girl urinary urgency and dysuria. A clean catch urine shows 50-100 white blood cells. How would you manage this child?
4. A mother asks whether she should use ibuprofen or acetaminophen for fever in her child what is the appropriate dose. What would you tell her?
5. A six-year-old boy has been coughing, particularly at night for 3 days. He has diffuse wheezes. Discuss your initial assessment and treatment.
6. A thirteen-year-old has had a persistent cough without other complaints or findings for the past week. It is now interfering with sleep. How would you manage this patient?
7. A ten-year-old presents with a headache, nasal discharge and a mild cough. His examination is unremarkable. How would you manage this patient?
8. A two-year-old presents with a persistent pruritic rash on his arms and legs. He has patches of erythema with obvious excoriations on the extensor surfaces of his arms and legs and also in the antecubital fossae. How would you treat this condition?
9. An eleven-year-old has a sore throat and a positive rapid streptococcal test. Discuss your assessment and initial management.
10. A known asthmatic complains of worsening cough and wheezing, unresponsive to inhaled albuterol. How would you manage this patient?
11. A six-year-old swimmer complains of otalgia and ear discharge. His right external ear canal is filled with a purulent discharge. Discuss your diagnosis and initial treatment plan.
12. The mother of two young children asks which sunscreen and insect repellent to use on a camping trip. What advice would you give her?
13. A breast-feeding mother is giving oral tetracycline for pneumonia. She wants to know if it safe to take the medication while breast-feeding. How would you counsel her?
14. A two-year-old boy with multiple drug allergies is diagnosed with pneumonia. The physician would like to use doxycycline or ciprofloxacin to treat him. How would you counsel the parents?

Fluid and Electrolyte Management

1. A six-year-old girl admitted for elective surgery and is made NPO (she is not allowed to drink or eat anything). She weighs 21 kg (height is 54 inches). Write an order for her IV fluids prior to surgery.
2. A two-year-old has sustained a severe closed head injury and is comatose. He weighs 14 kg. What factors need to be considered when calculating his daily water requirements? How would this patient's fluid requirements differ from that of a 5-month-old girl admitted with fever to 39.5°C and marked tachypnea?
3. A seven-month-old infant has had fever, vomiting, and diarrhea for the past 24 hours. How would you determine whether to admit this patient to the hospital for intravenous fluids?
4. An infant weighing 8 kg is estimated to be 12% dehydrated. What is the calculated fluid deficit and how should it be replaced? What IV solution(s) should be used? What laboratory tests should be ordered?
5. A two-month-old infant is brought to the Emergency Department because of seizures. He has had diarrhea for five days and has been fed only water and apple juice. What might be the cause of the seizures and how should they be treated?
6. A nine-month-old infant has diarrhea and signs of moderate dehydration. His electrolytes are Na⁺ 162, K⁺ 5.6, Cl⁻ 122, and bicarbonate 12. During IV rehydration the patient has a generalized seizure. What is the probable cause of the seizure? How should it be treated?
7. A nine-month-old infant has vomiting and diarrhea. He has dry mucous membranes and decreased tearing and urination. What type(s) of liquids would you recommend that the mother give to this infant and how often?
8. A nine-year-old child with diabetic ketoacidosis has the following electrolytes: Na⁺ 132, K⁺ 5.4, Cl⁻ 103, and Bicarb 9. As the fluid deficit is corrected, what is likely to happen to the serum K? How should this be managed?
9. A nine-month-old girl presents with two days of vomiting and diarrhea. She is listless and her heart rate is 210. What is the most appropriate initial management of this child?

Poisoning

1. An eighteen-month-old boy is found in the garage coughing and choking. A jar of paint thinner is spilled on the floor and on his clothing. What advice would you give to the parents over the phone? Should they give Ipecac? What is the most serious toxicity of this ingestion/exposure?
2. A two-year-old boy is brought to the Emergency Department in a coma after his mother found him limp and unresponsive in his room. What questions would you want to ask the mother to help learn why this patient might be unresponsive?
3. You receive a phone call from the mother of a 2-year-old child who was found eating the mother's prenatal vitamins. She thinks he may have swallowed 16 tablets. What is the toxic component of prenatal vitamins (if taken in excess)? What advice would you give the mother?
4. After a fight with her boyfriend, a sixteen-year-old girl takes 30 acetaminophen tablets. She presents to the emergency department six hours later when she is feeling nauseated. What is the appropriate management of this adolescent?
5. A three-year-old is brought to the Emergency Department because of weakness, diarrhea, and drooling. He had been playing unsupervised in the garage. He is found to have pinpoint pupils and bradycardia. What is the most likely cause of these symptoms and how should the patient be treated?
6. A three-year-old child is seen in the clinic because of irritability, decreased appetite and intermittent abdominal pain. He has developmental delay and mild anemia. How would you evaluate and manage this child?
7. Parents bring a 12-month-old girl for a routine health care supervision visit. What guidance would you give them so as to minimize the likelihood of an accidental poisoning occurring in the house?
8. A two year old girl is brought to the Emergency Room after ingesting an unknown quantity and type of her grandmother's pills. What findings in the physical exam will help to identify the type of pills? What resources are available to help identify and treat the ingestion?

Pediatric Emergencies

1. A three-year-old child presents to the Emergency Department with acute onset of stridor and tachypnea. Discuss your approach to this patient, including important aspects of the history and physical exam, the differential diagnosis, and management principles
2. A four-month-old baby presents to the Emergency Department with a fever of 104° F and petechiae. What is your differential diagnosis? How would you evaluate and manage this patient?
3. A three-year-old boy presents to the Emergency Department with worsening cough, wheezing and shortness of breath. He has difficulty talking in the Emergency Department. How would you manage this child?
4. A previously healthy fourteen-month-old presents to the Emergency Department following 2-3 minutes of generalized, symmetric tonic-clonic movements. Discuss your approach to the following scenarios:
 - (a) The child was sleepy initially but is now awake, alert, and easily consoled by her parents. Her temperature is 104° F.
 - (b) The child remains somnolent and appears to have nuchal rigidity?
5. A four-year-old boy presents with brief loss of consciousness and vomiting after falling off a six-foot high slide. How would you evaluate him and what are your concerns?
6. The mother of an 18-month-old calls to say her child has pulled splattered hot tea across his face and chest. How would you counsel her?
7. A four-year-old girl is brought to the Emergency Department following the acute onset of cough, increased work of breathing, and tachypnea while at a friend's birthday party. What is your differential diagnosis? How would you evaluate and manage this patient?
8. During a routine health care visit, a fifteen-year old girl with a history of depression confides to you that she would like to end her life. What should you do?
9. A nine-month old boy presents with lethargy. What historical and physical examination findings will help you determine if he has overwhelming sepsis, meningitis, congestive heart failure, or respiratory insufficiency?
10. A mother rushes a 4-month old girl to the emergency department following finding her cyanotic in her crib. Her examination is normal. How would you evaluate this infant and counsel the mother?

Child Abuse

1. A four-year-old male presents to the clinic because of a sore throat for two days. During the physical examination, patterned bruises (including looped shaped marks) on his back and arms are seen. How would you evaluate and manage this patient. What would you tell the parents?
2. A two-year-old presents to the emergency department after breaking her arm during a fall. The child was seen six months ago with a broken leg. What are your concerns? How would you evaluate this child?
3. A seven-year-old female patient presents with vaginal discharge. How would you approach the history and physical exam? In addition to poor hygiene, what else is in the differential diagnosis?
4. An eight-year-old male with urethral discharge grows *N. gonorrhoea* from a urethral culture. What medical, legal, and social issues should you address?
5. A two-month-old boy presents with lethargy and is poorly responsive. He has retinal hemorrhages. What are your ethical and legal obligations? To whom would you report your findings? What would you say to the boy's parents?
6. A nine-month-old boy has a history of poor weight gain for several months. His weight has fallen from the 50% to the 10% over the past four months. During a hospitalization for poor weight gain, he had a normal physical examination; normal laboratory values, and demonstrated excellent weight gain on an age-appropriate diet. Now one month following discharge from the hospital he has lost weight. What would you do for this child? Discuss the medical, legal, and social implications of your actions.
7. An eighteen-month-old infant presents with scald burns to the buttocks and legs. The parents report the child "turned on the hot water tap while playing in the bathtub." How would you differentiate an accidental burn from an inflicted burn?

Child Advocacy

1. A child is seen in the pediatric clinic for vomiting. On further questioning you find that the family is homeless and living in a car. Describe how you would approach helping the family. Discuss how you would treat the child's acute and ongoing medical needs.
2. Certain neighborhoods in the city are noted to have high infant mortality rates. If you were the health officer how would you go about addressing this problem?
3. Severe head injuries and death are associated with bicycle riding. How would you go about promoting helmet use by children?
4. A nine-year old boy with learning disabilities and poor school performance is seen in the clinic. How would you work with the school to increase the likelihood that he gets the services that he needs?
5. You live in a small town and note that many children have dental caries. You find out that the water supply is not fluoridated. How would you proceed?
6. You are working in the Emergency Room and note that over a one-month rotation three infants have been injured in baby walkers. What would you do?
7. The clinic in which you work has a very low immunization rate among the patients. What would you do to improve these immunization rates?