

## Pediatric Cases

1. The mother of a previously healthy nine-month-old girl living in a house built four years ago wants to know why her daughter should undergo lead and hemoglobin testing. She also wants to know if she can switch her daughter from formula to whole milk to save money. How would you respond to her concerns? What are the local (Chicago) and national guidelines for blood lead screening? What guidelines exist regarding hemoglobin testing?
2. A two-month-old born at term weighing 3.3kg presents for a well child visit. Today his weight is 4.0kg, length 56cm and head circumference is 39cm. He is taking 4 ounces of Enfamil with iron every 3-4 hours. How would you evaluate whether this intake is adequate?
3. The parents of an 18-month-old girl feel that she is not developing at the same pace as her older brother. They have heard a lot about autism on television, and are worried that she might be autistic. How would you evaluate her development and address her parents concerns? What tools are available for developmental screening?
4. A six-year-old girl admitted for elective surgery and is made NPO. She weighs 21kg (height is 54 inches). Write an order for her IV fluids prior to surgery.
5. 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? What other conditions may this child be at risk for in the future?
6. A six-month-old has a head circumference in the 50<sup>th</sup> percentile, height in the 5<sup>th</sup> percentile and weight in the 5<sup>th</sup> percentile. The baby was at the 50<sup>th</sup> percentile for all measurements at 3 months. How would you evaluate this child?
7. A six-month-old infant is seen for a well child examination. His height and weight have remained at the 25<sup>th</sup> percentile, but his head circumference has gone from the 25<sup>th</sup> percentile to greater than the 95<sup>th</sup> percentile over the last four months. What would you be most concerned about? How would you evaluate this child?
8. A four-year-old presents with cough for 3-4 days following a URI and fever to 104F for 24 hours. Exam reveals crackles on the right. What would you expect the CXR to show? What is on your differential diagnosis? How would you evaluate and manage this patient?

9. A sixteen-month-old with a history of nasal discharge for the past week presents with a swollen red eye and fevers to 103F. What are you most concerned about? How would you evaluate and manage this patient?
10. A fourteen-year-old male presents for a football sports physical. What are the important points to cover in the history and physical exam?
11. A mother brings her previously healthy 6-year-old son to clinic because he has been limping and complaining of left leg and knee pain for 1 week. He has experienced no recent trauma, and his past medical history is unremarkable. His physical examination reveals a temperature of 100F orally with no lower extremity swelling, misalignment or weakness. He has tenderness over the right knee, hepatosplenomegaly and petechiae on his cheeks and chest. Formulate a differential diagnosis for this patient. What is the most likely diagnosis? How would you evaluate this patient?
12. 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?
13. The mother of a thirteen-year-old female expresses her concern that her daughter has not yet had the onset of menses. How would you counsel her?
14. A 6-year-old girl presents with short stature. She has been doing well at school but is not athletic, and her height is less than the 5<sup>th</sup> percentile for age. Her parents are both of average height. On physical examination, she has normal features, except for slightly broadly spaced nipples. What is on your differential diagnosis? How would you evaluate her?
15. A 17-year-old African-American boy presents with a 3-day complaint of "brown urine." He has experienced no major illnesses or injuries, but two weeks ago, he, like several other family members, had a few days of low-grade fevers, fatigue and sore throat. This resolved without antibiotics, and he has been well since. His review of systems is remarkable only for his slightly puffy eyes, which he thinks is due to staying up late to play video games. He denies drug use. He is sexually active with his girlfriend, and they "usually" use condoms. On physical examination he is afebrile, his blood pressure is 140/90 mmHg, and the only significant physical finding is some periorbital edema. The urine dipstick has a specific gravity of 1.035 and contains 2+ blood and 2+ protein. What could cause the hematuria, and what is the most likely cause? What work-up would you pursue? What is the likely prognosis for this patient?
16. 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?

17. A 3-year-old girl comes to the clinic with a several-week history of episodic abdominal pain that is not associated with other symptoms. She is growing normally. On physical examination, she has a blood pressure of 130/88 mmHg, heart rate 82 bpm, and temperature 98.9°F (37.2°C). She has a smooth, firm, 7-cm x 7-cm mass palpated in the right upper quadrant of her abdomen that does not cross the midline. The remainder of the examination is normal. What could be responsible for the mass, and what is the most likely diagnosis? What is the best management for this condition?

18. A seven-week-old girl presents with a fever to 103F, mild irritability and poor feeding. What are your concerns? How would you evaluate and manage this patient? Would your concerns or management change if this were a seven-month-old girl?

19. 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?

20. 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.

21. 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. What is on your differential diagnosis? How would you evaluate and manage this patient?

22. A previously healthy 3-year-old boy presents with sudden onset of rash. His mother says he had been playing when she noticed small red spots and a large purple area on his skin. He has had no fever, upper respiratory tract infection symptoms or diarrhea, and he is not taking medications. Three weeks previously, he had a mild illness that self-resolved after 48 hours. He is playful on examination, but he has multiple petechiae and purpuric lesions on his upper and lower extremities and on his trunk. He has neither adenopathy nor splenomegaly. What is on your differential diagnosis? How would you evaluate this patient?

23. Smoke, dust and exercise trigger asthma attacks in an 11-year-old boy with asthma. Both of his parents smoke, and he is desperate to play basketball on the school team. Discuss how you would determine the medical management of this child. How would you negotiate an asthma care plan with the child and family?

24. 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?

25. You are working a shift in the Emergency Department and two ill infants with diarrhea are brought in at the same time. The first is a two-month-old infant with new-onset seizures. He has had diarrhea for five days and has been fed only water and apple juice. The second is a nine-month-old girl with two days of vomiting and diarrhea. She is listless, and her heart rate is 210. What is the most appropriate initial management of each child? What are you most worried about for each?

26. 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?

27. 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?

28. A mother reports that her 4-year-old daughter had a sore throat and difficulty swallowing for 3 days. She has been irritable and does not want to move her neck. Her appetite and intake have decreased, and she has vomited twice overnight. She has had no upper respiratory symptoms. She is otherwise healthy with up-to-date immunizations. The physical examination is remarkable for fever up to 102F, bilateral tonsillar exudates and an erythematous posterior oropharynx with right posterior pharyngeal wall swelling. What is the most likely diagnosis? What is the most appropriate next step in the evaluation?

29. A 3-year-old boy has a 20-day history of high fevers that spike twice daily. He was diagnosed with otitis media on the fifth day of fever and was prescribed amoxicillin, but the fever persisted. The fever is associated with a faint rash on the trunk and proximal extremities and complaints of "body aches." A CXR is normal, but a CBC shows leukocytosis, thrombocytosis and anemia. He has developed an aversion to bearing weight and continues to have fevers to 102.5°F, but otherwise he has normal vital signs. His examination is remarkable for scattered lymphadenopathy, hepatosplenomegaly and mild swelling of his interphalangeal joints and knees. What is the most likely diagnosis? What is the best diagnostic test for this disorder? What is the treatment for this condition?