1. A 3 year-old girl is diagnosed with atopic dermatitis. Which of the following disorders is this child at risk for in the future?

A. Asthma  
B. Tinea pedis  
C. Squamous carcinoma  
D. Systemic lupus erythematosus (SLE)

A. Up to 50% of patients with atopic dermatitis develop asthma and/or allergic rhinitis in the future.

2. A 3 year-old boy is seen in the office with a 5-day history of fever, erythema, edema of the hands and feet, a generalized rash over the body, bilateral conjunctival injections, fissuring and erythema of the lips, and cervical adenopathy. Antistreptolysin A (ASO) titer and throat culture are negative. The most serious systemic complication associated with this disorder is

A. renal.  
B. cardiac.  
C. pulmonary.  
D. hepatic.

B. The patient most likely has Kawasaki syndrome. The major complication with this disorder is coronary artery aneurysms, which are reported in up to 20% of affected children. The etiology of this disorder is uncertain, although a bacterial toxin with super antigen properties may be involved.

3. Which of the following medication classes is the treatment of choice in a patient with variant or Prinzmetal's angina?

A. Calcium channel blockers  
B. ACE inhibitors  
C. Beta blockers  
D. Angiotensin II receptor blockers
A. Calcium channel blockers are effective prophylactically to treat coronary vasospasm associated with variant or Prinzmetal's angina.

4. Pharmacologic treatment of a patient with gestational diabetes should consist of which of the following?

A. Oral hypoglycemic agents  
B. Regular insulin  
C. Oral corticosteroids  
D. Glucagon

B. Regular insulin is the drug of choice as this will maintain the mother's blood sugar but not cross the placenta.

5. Which of the following is an indication for vaccination against hepatitis A?

A. Illicit drug users  
B. Health care workers  
C. Renal dialysis patients  
D. Routine vaccination starting at birth

A. Hepatitis A vaccine is recommended for illicit drug users, anyone living or traveling to endemic areas, sewage workers, food handlers, homosexual and bisexual men, animal handlers, patients with a history of chronic liver disease or a clotting factor disease as well as children and workers in day care settings and institutions.

6. A 2 month-old infant presents for a routine health maintenance visit. The mother has been concerned about the infant's hearing since birth. Physical examination reveals no apparent response to a sudden loud sound. Which of the following is the most appropriate diagnostic evaluation?

A. Audiometry  
B. Tympanometry  
C. Acoustic reflectometry  
D. Auditory-evoked potentials

D. Brainstem auditory-evoked potentials evaluate the sensory pathway and identify the site of any anatomical disruption. The test does not require any active response from the patient and is useful in the evaluation of suspected hearing loss in an infant.

7. A 53 year-old female status post abdominal hysterectomy 3 days ago suddenly develops pleuritic chest pain and dyspnea. On exam, she is tachycardic and tachypneic with rales in
the left lower lobe. A chest x-ray is unremarkable and an EKG reveals sinus tachycardia. Which of the following is the most likely diagnosis?

A. Atelectasis  
B. Pneumothorax  
C. Pulmonary embolism  
D. Myocardial infarction

C. This patient's risk factors for pulmonary embolism include advanced age, surgery, and prolonged bedrest. While the diagnosis of pulmonary embolism is difficult to make due to nonspecific clinical findings, the most common symptoms include pleuritic chest pain and dyspnea associated with tachypnea. Chest x-ray and EKG are usually normal.

8. Which of the following is an independent risk factor for development of a mesothelioma?

A. Cigarette smoking  
B. Asbestos exposure  
C. Radon gas exposure  
D. Chronic obstructive lung disease

B. Studies confirm the association of asbestos exposure to the development of mesothelioma.

9. A 34 year-old female with a history of asthma presents with complaints of increasing asthma attacks. The patient states she has been well-controlled on albuterol inhaler until one month ago. Since that time she notices that she has had to use her inhaler 3-4 times a week and also has had increasing nighttime use averaging about three episodes in the past month. Spirometry reveals greater than 85% predicted value. Which of the following is the most appropriate intervention at this time?

A. Oral prednisone  
B. Oral theophylline (Theo-Dur)  
C. Salmeterol (Serevent) inhaler  
D. Beclomethasone (Qvar) inhaler

D. This patient has progressed to mild persistent asthma. In addition to her inhaled beta2-agonist (albuterol), she should be started on an anti-inflammatory agent. Inhaled corticosteroids, such as beclomethasone, are preferred for long-term control.
10. Which of the following mechanisms leads to a primary pneumothorax?

A. Penetrating or blunt trauma forces
B. Underlying lung cancer
C. Pressure of air in the pleural space exceeds room air pressure
D. Rupture of subpleural apical blebs due to high negative intrapleural pressures

D. A primary spontaneous pneumothorax is thought to result from a rupture of subpleural apical blebs secondary to high negative intrapleural pressures.