1. A patient with prostate cancer has a nonpalpable, focal lesion, and the patient is reluctant to have surgery at this time. Which of the following would best monitor disease progression?

A. Periodic rectal exams  
B. Transrectal ultrasonography  
C. Measurements of serum acid phosphatase  
D. Measurements of prostate-specific antigen  

D. Measurements of prostate-specific antigen - PSA measurement correlates well with volume and stage of disease and is the recommended examination for monitoring disease progression.

2. If a woman has a normal 28-day menstrual cycle what tissue and hormonal phase occurs during the last 14 days?

A. Proliferative follicular phase under the influence of estrogen.  
B. Secretory luteal phase under the influence of estrogen and progesterone.  
C. Proliferative follicular phase under the influence of estrogen and progesterone.  
D. Secretory luteal phase under the influence of estrogen.  

B. Secretory luteal phase under the influence of estrogen and progesterone. - The endometrial changes seen in the latter half of the cycle are under the influence of both estrogen and progesterone from the corpus luteum. During this phase, the endometrium becomes more vascularized and slightly edematous.
3. A 24 year-old male presents for routine physical examination. On physical examination, you find that the patient's upper extremity blood pressure is higher than the blood pressure in the lower extremity. Heart exam reveals a late systolic murmur heard best posteriorly. What is the most likely diagnosis in this patient?

A. Hypertrophic obstructive cardiomyopathy
B. Patent foramen ovale
C. Coarctation of the aorta
D. Patent ductus arteriosus

C. Coarctation of the aorta - Coarctation of the aorta commonly presents with higher systolic pressures in the upper extremities than the lower extremities and absent or weak femoral pulses.

4. A mother brings a 3 month-old infant to the office because she is concerned about a red, vascular, nodular growth on the child's back. It appears to be enlarging slightly and the vessels are slightly dilated. It seems to cause the child no discomfort. The most likely diagnosis is

A. a hemangioma.
B. a pigmented nevus.
C. a salmon patch (stork bite).
D. a malignant melanoma.

A. A hemangioma - A hemangioma is a bright red to deep purple vascular nodule or plaque that often develops at birth, may enlarge, and may regress and disappear with aging.

5. A 45 year-old male with Type 1 diabetes presents with the following lipid panel: Total cholesterol 321 mg/dL; Triglycerides 225 mg/dL; HDL 30 mg/dL; LDL 155 mg/dL. The treatment of choice for this patient is

A. Nicotinic acid (Niacin).
B. Cholestyramine (Questran).
C. Gemfibrozil (Lopid).
D. Simvastatin (Zocor).
D. Simvastatin - As of now, Simvastatin is still considered the drug of choice - as it will decreases triglyceride level, decrease LDL, and increase HDL. (I do foresee changes to this recommendation in the future)

6. A 45 year-old male presents with abdominal pain and one episode of mild hematemesis, which happened days ago. On physical examination, vital signs are stable and he is in no acute distress. Hemoglobin and hematocrit are unremarkable; endoscopy reveals non-bleeding small superficial ulceration of the duodenal bulb. Rapid urease test is positive. Which of the following is the most appropriate treatment at this time?

A. Schedule for a selective vagotomy and antrectomy
B. Start an antacid along with omeprazole (Prilosec)
C. Schedule elective ulcer excision and start sucralfate (Carafate)
D. Start omeprazole (Prilosec) and antibiotic therapy against H. pylori

D. Start omeprazole (Prilosec) and antibiotic therapy against H. pylori - Treatment goals of H. pylori associated ulcers include eradicating the infection with appropriate antibiotics as well as use of a proton pump inhibitor, such as omeprazole, to promote ulcer healing.

7. A 19 year-old female presents with a sore throat for nearly two weeks. She complains of fatigue and a low-grade fever. On physical examination, there is cervical, axillary, and inguinal lymphadenopathy, and mild splenomegaly. On review of the blood smear, which of the following would be expected?

A. Atypical lymphocytes
B. Hypersegmented neutrophils
C. Hypochromic red blood cells
D. Schistocytes

A. Atypical lymphocytes - The hallmark of infectious mononucleosis is the presence of lymphocytosis with atypical large lymphocytes seen in the blood smear. These are larger than normal mature lymphocytes, stain more darkly, and frequently show vacuolated, foamy cytoplasm, and dark chromatin in the nucleus.

8. Which of the following increases the risk of developing testicular cancer?
A. Low socioeconomic status
B. History of cryptorchidism
C. Multiple episodes of epididymitis
D. Being of African-American ethnicity

B. History of cryptorchidism - The major predisposing risk factor is cryptorchidism unrepaired until after age two.

9. A 17 year-old patient presents to the emergency department with agitation and hallucinations, and has one seizure. He admits to using "some drugs" but does not know what they were. On physical examination, temperature is 103 degrees F, BP 140/90, pulse 120, respirations 20. Remainder of the examination is unremarkable. Which of the following diagnostic studies will be of most help in managing this patient?

A. Drug screen
B. Urine dipstick
C. Complete blood count
D. Serum creatinine kinase

D. Serum creatinine kinase - Serum creatinine kinase is the most sensitive test to detect rhabdomyolysis, a serious complication of seizures and hyperthermia related to drug abuse.

(note) * A. Although a drug screen may identify specific drugs, the results will not alter the care of this patient.

10. Which of the following medications is the treatment of choice for patients with chronic gout to prevent recurrence of symptoms during its quiescent phase?

A. Probenecid (Benemid)
B. Allopurinol (Zyloprim)
C. Colchicine
D. Indomethacin (Indocin)

B. Allopurinol - Allopurinol is the best drug to lower serum urate in overproducers, stone formers, and patients with advanced renal failure. It is a xanthine oxidase inhibitor that is used to prevent the formation of uric acid.