1. A 72 year-old female presents with vulvular pruritus for the last nine months, which has progressively worsened over the last two months. She states that she went through menopause at age 54 and has been on estrogen and progesterone therapy since that time. Physical examination reveals red lesions with white plaques on the vulva. What should the next course of management include?

A. Refer to a gynecologist for biopsy.
B. Refer to a dermatologist for antifungal therapy.
C. Treat with a topical steroid.
D. Treat with estrogen cream.

**Answer:** A. Refer to a gynecologist for biopsy.

Vulvular squamous cell hyperplasia causes thickening and hyperkeratosis of the vulva. The lesions are red and moist and cause intense pruritus over time the area becomes thickened and a white plaque may develop. Biopsy must be done to evaluate for intraepithelial neoplasm or invasive tumor.

2. A 30 year-old female presents to the emergency department with a syncopal episode. She has a history of irregular menstrual cycles and infertility. She has scanty, persistent vaginal bleeding and sharp pelvic pain. A left adnexal mass is palpated. The most likely diagnosis is

A. placenta abruptio.
B. ectopic pregnancy.
C. pelvic inflammatory disease.
D. ruptured ovarian cyst.

**Answer** B. ectopic pregnancy.

Infertility increases the risk of developing ectopic pregnancy. The onset of vaginal bleeding, pelvic pain, and formation of an adnexal mass makes this the most likely diagnosis.

3. A patient presents complaining of periumbilical pain. Which of the following anatomical sites is this finding associated with?

A. Bladder
B. Stomach
C. Pancreas
D. Small bowel

**Answer:** D. Small bowel

Pain from the small intestine, appendix, or proximal colon causes periumbilical pain.

4. A 53 year-old patient presents with severe pain at the base of the thumb and no other finger involvement. The pain is worse with activity and lasts a short period of time following rest. There is no specific history of trauma to the thumb but the patient admits working with her hands as a typist. Which of the following is the most likely diagnosis?

A. Rheumatoid arthritis
B. Osteoarthritis
C. Hemochromatosis
D. Pseudogout

**Answer:** B. Osteoarthritis
The base of the thumb is typically involved with osteoarthritis as are the DIP joints of the other fingers.

5. A 38 year-old female with history of coarctation of the aorta repair at the age of two presents with fevers for four weeks. The patient states that she has felt fatigued and achy during this time. Maximum temperature has been 102.1 degrees F. She denies cough, congestion, or other associated symptoms. Physical examination reveals a pale tired appearing female in no acute distress. Heart reveals a new grade III-IV/VI systolic ejection border at the apex, and a II/VI diastolic murmur at the right sternal border. What is the most likely diagnosis?

A. Acute myocardial infarction
B. Bacterial endocarditis
C. Acute pericarditis
D. Restrictive cardiomyopathy

**Answer** B: Bacterial endocarditis

Bacterial endocarditis presents as febrile illness lasting several days to weeks, commonly with nonspecific symptoms, echocardiogram often reveals vegetations on affected valves.

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
Answer: 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,

7. Which of the following findings is usually associated with Addison's disease?

A. Weight gain
B. Hypertension
C. Increased pigmentation
D. High plasma cortisol levels

Answer: C. Increased pigmentation

Patients with Addison's disease have diffuse tanning over nonexposed and exposed skin due to increased melanocytic factor that is released with adrenocorticotropic hormone.

8. A 60 year-old patient with COPD characteristic of emphysema presents with a cough and increased sputum production. The following information is noted: Temperature 100°F (37.8°C); Respiratory rate 20/min; Heart rate 88 beats/min; pH 7.44; PaO2 75 mmHg; PaCO2 40 mmHg; O2 saturation 92%. Physical examination is remarkable for increased AP diameter, diminished breath sounds without wheezes, rhonchi, or other signs of respiratory distress. Which of the following would be an appropriate treatment for this patient?

A. Broad-spectrum antibiotic
B. Admission to the hospital
C. Oxygen at 6 L/min by nasal cannula
D. Brief course of oral theophylline

Answer: A. Broad-spectrum antibiotic
A. Sputum production is extremely variable from patient to patient, but any increase in sputum with a history of COPD reported by a patient must be regarded as potentially infectious and treated promptly.

9. Which of the following physical findings suggest pernicious anemia?
   A. Splenomegaly and hepatomegaly
   B. Petechiae and ecchymosis
   C. Loss of position and vibratory sensation
   D. Cheilosis and koilonychia

Answer: C. Loss of position and vibratory sensation

Loss of position and vibratory sensation are common neurologic findings in pernicious anemia.

10. A 60 year-old male presents with a normochromic, normocytic anemia and splenomegaly. His past history reveals several episodes of bacterial pneumonia in the past year. The WBC count is 43,000 mm3 with 25% segmented neutrophils, 3% blasts, 70% mature lymphocytes, 1% basophils, and 1% eosinophils. This most likely represents
   A. myelodysplastic syndrome.
   B. acute lymphocytic leukemia.
   C. chronic lymphocytic leukemia.
   D. chronic myelogenous leukemia.

Answer: C. chronic lymphocytic leukemia.

Chronic lymphocytic leukemia usually occurs after the age of 50 presenting with lymphocytosis > 20,000 mm3 and lymphocytes that appear mature.