



KAPLAN MEDICAL

Dr. Pestana's Surgery Notes

THIRD EDITION

Audio Companion

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Images

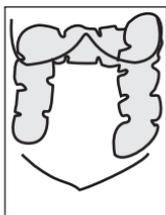


Figure 3.1:
Radiological
appearance of
dilated colon

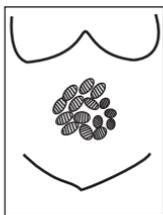


Figure 3.2:
Radiological
appearance of
dilated small bowel

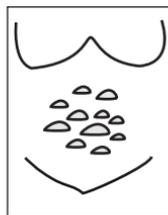


Figure 3.3:
Air fluid levels
described
in the recording



Figure 4.1: Volvulus of the sigmoid



Figure 5.1:
Annular Pancreas
Duodenal Atresia



Figure 5.3:
Malrotation

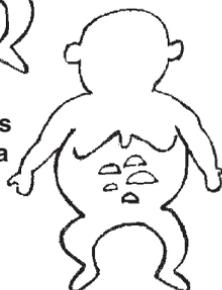


Figure 5.2:
Intestinal Atresia

Section II

Practice Questions

This section provides 180 multiple-choice practice questions for your ongoing self-assessment. They contain only the key combination of facts that should be immediately recognized by an astute clinician.

For each practice question, the answer key on pages 94–98 indicates the correct answer choice. If you have carefully read the text, the correct answer for most of the practice questions will be obvious to you.

1. A 27-year-old man is stabbed in the right chest with a 5-cm-long knife blade. On arrival at the ER he is wide awake and alert, speaking with a normal tone of voice, but complaining of moderate shortness of breath. He has no breath sounds over his right hemithorax, but the rest of the initial survey is negative. Pulse oximetry shows a saturation of 85. Management of his airway at this time requires which of the following?
 - A. Airway does not need to be secured at this time.
 - B. Awake orotracheal intubation.
 - C. Blind nasotracheal intubation.
 - D. Cricothyroidotomy.
 - E. Ororotracheal intubation with short-acting anesthetic induction.

2. A 53-year-old man is placed on warfarin after a sigmoid resection for cancer. His prothrombin time becomes quite high, but he has no overt signs of bleeding, so the clinical team decides not to reverse his anticoagulation with vitamin K. A couple of hours later he complains of back pain. A portable x-ray of his lumbar spine is noncontributory. Two hours after that, he goes into shock. EKG and troponins are normal, and it is assumed he has developed septic shock. Initial treatment with antibiotics and a steroid bolus produces dramatic restoration of normal vital signs. However, 2 hours after that he is back in shock, deteriorates rapidly, and dies. An autopsy is likely to reveal that he:
- A. Bled into and destroyed his adrenal glands.
 - B. Extruded a lumbar disk at L4–L5.
 - C. Had a massive myocardial infarction.
 - D. Had very extensive bilateral pulmonary emboli.
 - E. Leaked 3 liters of blood from an aortic aneurysm into his retroperitoneal space.
3. During a school picnic, a 33-year-old teacher accidentally bumps into a beehive and is repeatedly stung by angry bees. On arrival at the ER her blood pressure is 72 over 20 and her pulse rate is 150, but she looks warm and flushed rather than pale and cold. Her CVP is low. The reason for the low blood pressure reading is:
- A. Cardiogenic shock.
 - B. Hypovolemia.
 - C. Massive vasoconstriction.
 - D. Pain and fright.
 - E. Vasomotor shock.

4. During an attempted robbery, an 18-year-old man is hit over the head with a blunt instrument. He manages to escape further injuries, and he comes to a nearby ER with all his family in tow because it hurts where he got hit. He is completely lucid, was never unconscious, and can remember all the details of his ordeal. A CT scan of his head shows a linear skull fracture. There is no scalp wound over that area, and there are no intracranial hematomas. Further management should include which of the following?
- A. Closely monitor blood pressure for possible development of hypovolemic shock.
 - B. Initiate exploratory craniotomy to assess intracranial injuries.
 - C. Expose the fracture in the OR to be repaired with plates and screws.
 - D. Repeat the CT scan, this time including the entire neck.
 - E. Send the man home to the care of his family.
5. A 54-year-old man involved in a high-speed, head-on automobile collision is in coma. Both of his pupils are dilated and fixed. CT scan shows a small, semilunar, crescent-shaped intracranial hematoma hugging the inside of the skull. There is no deviation of his midline structures. What would help this patient the most would be:
- A. High-dose steroids.
 - B. Monitoring of intracranial pressure.
 - C. Prompt surgical evacuation of his epidural hematoma.
 - D. Prompt surgical evacuation of his subdural hematoma.
 - E. Systemic vasodilators and alpha-blockers.

6. Two men engage in a knife fight, in which one of them is repeatedly stabbed. One of the wounds is deep in his back, just to the right of the midline. Distal to that injury, he has paralysis and loss of proprioception on the right side, and loss of pain perception on the left side. The diagnosis is:
- A. Anterior cord syndrome.
 - B. Central cord syndrome.
 - C. Complete transection of the spinal cord.
 - D. Hemisection of the spinal cord (Brown-Séquard).
 - E. Posterior cord syndrome.
7. In the course of a mugging, a 72-year-old man is repeatedly struck in the chest with a baseball bat. X-rays show a fracture of the right fifth rib at the level of the midclavicular line. This injury is best treated by:
- A. Binding of the chest wall to limit motion.
 - B. Enough systemic analgesics to depress his respiratory drive.
 - C. Intercostal nerve block and analgesia by epidural catheter.
 - D. Open reduction and internal fixation.
 - E. Supplemental oxygen by endotracheal tube.

8. In an automobile accident, a 55-year-old man sustains several rib fractures. At the time of admission, his lungs are clear on x-rays and blood gases are normal. Two days later the lungs “white out” and he has hypoxemia and hypercapnia. The most likely diagnosis is:
- A. Adult respiratory distress syndrome (ARDS).
 - B. Fat embolism.
 - C. Pulmonary contusion.
 - D. Pulmonary embolism.
 - E. Tension pneumothorax.
9. A 27-year-old police officer is shot in the abdomen at close range with a .45-caliber revolver. The entrance wound is just to the left of the umbilicus, and the bullet is seen in x-rays to be embedded in the right psoas muscle. He is hemodynamically stable, and the abdomen is moderately tender to palpation. Assessment of the extent of his intraabdominal injuries will best be made by:
- A. CT scan of the abdomen.
 - B. Close clinical observation.
 - C. Diagnostic peritoneal lavage.
 - D. Exploratory laparotomy.
 - E. Sonogram done in the ER.

10. After receiving 10 units of packed red cells during surgery for massive intraabdominal injuries sustained in a car accident, a 29-year-old man is noted to be oozing blood from all dissected raw surfaces, as well as his IV line sites. His core temperature is normal. The next step in management should be:
- A. Abort the operation, pack the abdomen, and close it tight.
 - B. Emergency coagulation profile and specific therapy.
 - C. Empiric administration of fresh frozen plasma and platelet packs.
 - D. Empiric administration of vitamin K.
 - E. Proceed with surgery and give additional banked blood as needed.
11. In the evaluation of a 23-year-old man with a pelvic fracture sustained in a severe car accident, it is noted that he has blood at the meatus and a scrotal hematoma. His urological workup should begin with:
- A. Cystoscopy.
 - B. Intravenous pyelogram (IVP).
 - C. Retrograde cystogram via Foley catheter.
 - D. Retrograde urethrogram.
 - E. Scrotal sonogram.

12. An 18-year-old male is shot point-blank with a .38-caliber revolver. The entrance wound is in the anterior, lateral aspect of his upper thigh, and the bullet is embedded in the muscles posterolateral to his intact femur. The entry wound is carefully cleaned in the ER. What else does he need?
- A. Arteriogram.
 - B. Doppler studies.
 - C. Surgical exploration of the femoral vessels.
 - D. Surgical removal of the bullet.
 - E. Tetanus prophylaxis.
13. A 33-year-old woman shows up with a full-thickness, circumferential burn in her upper arm, sustained when her shirt caught fire as she was roasting marshmallows at a picnic. She will need compulsive monitoring of:
- A. Blood gases.
 - B. Body weight.
 - C. Carboxyhemoglobin levels.
 - D. Myoglobinemia and myoglobinuria.
 - E. Peripheral pulses and capillary filling.

14. A 33-year-old woman seeks immediate medical attention for a severe burn that she accidentally suffered. A hot iron fell on her lap when she was pressing the laundry. The shape and size of the iron are clearly delineated on her thigh, and the small area is clearly a full-thickness, fresh, clean third-degree burn. She would be an ideal candidate to be treated with:
- A. Application of mafenide acetate.
 - B. Application of silver sulfadiazine.
 - C. Immediate excision and grafting.
 - D. Repeated debridements and wet-to-dry dressings.
 - E. Use of triple antibiotic ointment.
15. A newborn baby has uneven gluteal folds, and during physical examination his right hip can be dislocated and put back in place. An older sibling had the same problem, for which he wore a Pavlik harness for 6 months. This child has:
- A. Developmental dysplasia of the hip.
 - B. Congenital absence of the femoral head.
 - C. Legg-Calvé-Perthes disease (avascular necrosis).
 - D. Septic hip.
 - E. Slipped capital femoral epiphysis.

16. A 4-year-old child falls down the stairs and fractures the mid-shaft of his humerus. The fracture is easily reduced and placed in a cast at an urgent care clinic. When seen by his pediatrician 2 days later, he seems to be doing fine, but AP and lateral x-rays show significant angulation of the broken bone. You can expect that this child will:
- A. Develop uneven growth due to damage of the growth plate.
 - B. Have permanent deformity, but compensate by redirecting bone growth.
 - C. Have permanent deformity unless the fracture is reset.
 - D. Remodel the fracture and have no permanent deformity.
 - E. Require open reduction and internal fixation.
17. A 22-year-old man had a motorcycle accident in which he sustained several bilateral femur fractures. He is currently in the ICU with respiratory failure presumed to be due to fat embolism, being treated on a respirator. He had been fully conscious throughout but has suddenly gone into coma. An MRI of the brain shows a “star-field pattern.” This new development suggests that:
- A. A subdural hematoma has developed.
 - B. Fat droplets have reached the brain.
 - C. He now has irreversible traumatic brain damage.
 - D. Pulmonary failure has led to anoxia of the central nervous system.
 - E. The respirator has inadvertently produced an air embolism.

18. A 78-year-old man is brought in from his nursing home, where he had fallen. As he lies on the stretcher, his right leg appears shortened and externally rotated. X-rays demonstrate an intertrochanteric fracture of his right hip. The best treatment would be:
- A. Open reduction, internal fixation, and post-op anticoagulation.
 - B. Open reduction, internal fixation, and post-op clot busters.
 - C. Removal of the femoral head and replacement with a prosthesis.
 - D. Skeletal traction and vena cava filter.
 - E. Total hip replacement.
19. A fracture of the tibia and fibula has been treated by closed reduction and casting. The patient complains of increasing pain, so the cast is removed 6 hours later to allow examination of the leg. The calf muscles feel tight, and the patient has excruciating pain when the toes are passively extended. This patient will need:
- A. Arteriogram.
 - B. Fasciotomy.
 - C. Nerve block prior to recasting.
 - D. Open reduction and internal fixation.
 - E. Recasting with a looser cast.

20. While repairing an elevator shaft, a 39-year-old worker falls from a height of 2 stories, landing on his feet. Both calcanei are obviously fractured. Further evaluation should include:
- A. X-rays of the femur.
 - B. X-rays of the knee.
 - C. X-rays of the lower leg.
 - D. X-rays of the pelvis.
 - E. X-rays of thoracic and lumbar spine.
21. When the hand of a 23-year-old athlete is examined, it is noted that she cannot extend the tip of her middle finger, which remains bent down even as all the other digits are fully extended. She reports that she injured herself while playing volleyball. The name of this deformity is:
- A. Felon.
 - B. Gamekeeper's finger.
 - C. Jersey finger.
 - D. Mallet finger.
 - E. Trigger finger.

22. A 52-year-old man has an indolent, dirty-looking ulcer with heaped-up tissue edges, located over the dorsum of his right foot. He says he has had an ulcer there for at least 30 years, following an untreated third-degree burn that healed by itself. He had not been concerned, because that injury has broken down and healed many times over the years, but now it looks “different” and it is getting larger. The diagnosis is most likely to be provided by:
- A. Arteriograms.
 - B. Biopsy of the ulcer edge.
 - C. Cultures of the ulcer base.
 - D. Doppler studies.
 - E. Venous pressure tracings.
23. An elderly man needs palliative surgery for a cancer of the esophagus. He has lost 20% of his body weight over the past 2 months, and his serum albumin is 2.7. Further testing reveals anergy to injected skin-test antigens and a serum transferrin level of less than 200 mg/dL. His operative risk is:
- A. Excellent because he shows sign of adaptation to starvation.
 - B. Only slightly worse than average.
 - C. Prohibitive and not amenable to short-term interventions.
 - D. Very high, but amenable to correction if TPN is used and feeding in the gut is avoided.
 - E. Very high, but could be improved considerably with 7–10 days of intensive nutritional support delivered to his gut.

24. A 69-year-old man had a right hemicolectomy yesterday. He reports severe, constricting retrosternal pain of sudden onset, radiating to his left arm. He is tachycardic, sweating profusely, and very anxious. The diagnosis is most likely to be revealed by:
- A. Blood gases.
 - B. Chest x-ray.
 - C. EKG and troponins.
 - D. Spiral CT scan.
 - E. Ventilation-perfusion scan.
25. A cirrhotic patient goes into coma after performance of an emergency portacaval shunt for bleeding esophageal varices. The laboratory test most likely to reveal the reason for the neurological deterioration is:
- A. Blood alcohol levels.
 - B. Blood gases.
 - C. Blood sugar.
 - D. Serum ammonium.
 - E. Serum sodium.

26. A 62-year-old man is recovering from a subtotal gastrectomy for gastric cancer with a gastroduodenal anastomosis. A Penrose drain has been left in the area. On the sixth postoperative day he began to drain about 2 liters per day of green fluid. He has no abdominal pain, fever, or signs of peritoneal irritation. At this time his management should be:
- A. Emergency reclosure of his abdominal incision.
 - B. Fluid replacement, nutritional support, and protection of the abdominal wall.
 - C. Fluid restriction and oral intake of mostly solid foods.
 - D. Intensive medical management with H2 blockers and proton pump inhibitors.
 - E. Surgical closure of the fistula after antibiotic bowel prep.
27. A patient with severe peptic ulcer disease develops pyloric obstruction, and he has protracted vomiting of clear gastric contents (without blood or bile) for several days. He looks clinically dehydrated, and his serum electrolytes show sodium of 134, chloride 82, potassium 2.9, and bicarbonate 34 (all in mEq/L). Rehydration would best be accomplished with:
- A. Dextrose 5% in water (D5W).
 - B. Half-normal saline with added sodium bicarbonate.
 - C. Half-normal saline with added sodium lactate.
 - D. Normal saline with added KCl.
 - E. Ringer lactate.

28. A 62-year-old woman has been having heartburn for several years, and from time to time she complains of epigastric pain that is relieved with over-the-counter antacid medications. In the last few months her pain has been almost constant and no longer responds to self-medication. The evaluation of her problem will best be done with:
- A. Barium swallow.
 - B. Esophageal manometry.
 - C. Gastrografin swallow.
 - D. pH monitoring.
 - E. Upper GI endoscopy.
29. For the past 5 days, a 53-year-old man has been having colicky abdominal pain, protracted vomiting, and progressive abdominal distension. His last bowel movement was 3 days ago, and he is not passing any gas per rectum. On physical exam he has high-pitched bowel sounds but no signs of peritoneal irritation. He has a well-healed midline scar from an exploratory laparotomy for a gunshot wound done 4 years ago. X-rays show dilated loops of small bowel with air-fluid levels. At this time the best management would be:
- A. Antibiotics, anticholinergics, and gentle laxatives.
 - B. H₂ blockers, antacids, and gastric lavage.
 - C. NPO, nasogastric suction, IV fluids, and careful observation.
 - D. Rectal tube and colonic irrigation.
 - E. Surgical intervention within the next hour.

30. A 61-year-old man reports bright red blood on the toilet paper after evacuation. Arrangements are made to do digital rectal exam, anoscopy, and proctosigmoidoscopy. Most likely the source of his bleeding will be found to be:
- A. Anal fissure.
 - B. Anal prolapse.
 - C. External hemorrhoids.
 - D. Fistula-in-ano.
 - E. Internal hemorrhoids.
31. A 68-year-old man has had 3 large bowel movements that he describes as made up entirely of dark red blood. The last one was 20 minutes ago. He is diaphoretic and pale, with a blood pressure of 90 over 70 and pulse rate of 110. Inspection of his mouth and nose shows no blood or lesions that might have bled recently. A nasogastric tube is inserted, and aspiration returns clear green fluid without blood. The source of his bleeding is:
- A. Between the ligament of Treitz and the ileocecal valve.
 - B. Distal to the ligament of Treitz.
 - C. Distal to the pylorus.
 - D. Proximal to the ileocecal valve.
 - E. Proximal to the ligament of Treitz.

32. A 49-year-old, obese woman presents with abdominal pain. She has a history of 3 prior episodes of left lower-quadrant abdominal pain, for which she was briefly hospitalized and treated with antibiotics. She began to feel discomfort 12 hours ago, and now she has constant left lower-quadrant pain, tenderness, and a vaguely palpable mass in the left lower-quadrant of the abdomen. She has fever and leukocytosis, and a pelvic exam is negative for OB-GYN pathology. The next diagnostic study indicated in this patient is:
- A. Abdominal sonogram.
 - B. Barium enema.
 - C. CT scan of the abdomen.
 - D. Colonoscopy.
 - E. Exploratory laparotomy.
33. A 39-year-old woman has increasing jaundice, first noted 3 weeks ago. Her physical exam is otherwise unremarkable. Her current laboratory values show a total bilirubin of 18, of which 12 is conjugated. There is minimal elevation of transaminases, and alkaline phosphatase is 4 times higher than the lab's reference normal value. The next diagnostic study should be:
- A. Abdominal sonogram of the right upper quadrant.
 - B. Endoscopic retrograde cholangiopancreatography (ERCP).
 - C. Percutaneous liver biopsy.
 - D. Red cell fragility tests.
 - E. Serology titers for hepatitis.

34. A 47-year-old alcoholic man is having epigastric and midabdominal pain, which began shortly after he ate a large meal. The pain reached maximum intensity in about 12 hours and is now constant, severe, and radiating to his back. He vomited early on and has continued to retch even after his stomach was empty. Although he has discomfort when his upper abdomen is palpated, the physical exam is less impressive than the severity of his pain would suggest. He is afebrile. Serum lipase is very elevated, and hematocrit is 54. The most likely diagnosis is:
- A. Acute cholecystitis.
 - B. Acute edematous pancreatitis.
 - C. Acute hemorrhagic pancreatitis.
 - D. Perforated peptic ulcer.
 - E. Ruptured pancreatic pseudocyst.
35. An 18-year-old woman has a 2-cm, firm, rubbery mass in her left breast that moves easily with palpation. The mass is not tender, and she has no other symptoms. This is most likely:
- A. Adenocarcinoma.
 - B. Cystosarcoma phyllodes.
 - C. Fibroadenoma.
 - D. Fibrocystic disease.
 - E. Intraductal papilloma.

36. A 74-year-old woman reports that her left breast has been swollen and red for a couple of months. She delayed seeking help because she has no pain or fever. Physical examination shows classical “orange peel” appearance, but no discrete masses can be felt. This is most likely:
- A. Chronic cystic mastitis.
 - B. Inflammatory cancer of the breast.
 - C. Normal menopausal involutionary changes.
 - D. Pyogenic breast abscess.
 - E. Tuberculous or fungal breast abscess.
37. A 32-year-old woman in the second month of pregnancy is found to have a 2-cm mass in her left breast. Mammogram shows no other lesions, and core biopsies reveal infiltrating ductal carcinoma. The best course of action would be:
- A. Appropriate surgical excision now, deferring other therapeutic modalities.
 - B. Breast surgery, chemotherapy, and radiation at this time.
 - C. Chemotherapy now, deferring surgery until after delivery.
 - D. Immediate therapeutic abortion and palliative breast surgery.
 - E. Radiotherapy now, deferring surgery until after delivery.

38. A 39-year-old woman discovers a lump on her lower neck that goes up and down with swallowing. Physical examination discloses a 2-cm, firm mass in the right lobe of her thyroid gland. She is otherwise asymptomatic. The appropriate course of action for this mass will best be established by:
- A. Careful observation over the next few years.
 - B. Fine-needle aspiration (FNA) cytology of the mass.
 - C. Radionuclide scan of the thyroid gland.
 - D. Response to suppression by exogenous thyroid medication.
 - E. Thyroid function tests (T4 and TSH).
39. An asymptomatic 44-year-old woman is persuaded to have her blood pressure checked at a health fair sponsored by her church. She is found to be hypertensive, which surprises her, because "I have always been healthy, and I'm not on any medications." Her physical examination is otherwise unremarkable, but the lab reports slight elevations of serum sodium and bicarbonate, and serum potassium of 2.3 mEq per liter. The next study should be:
- A. Cortisol byproducts in the urine.
 - B. Serum aldosterone and renin.
 - C. Serum and urinary catecholamines.
 - D. Somatomedin C.
 - E. Split renal function.

40. Within 8 hours of birth, it is noted that a baby has excessive salivation. A small, soft nasogastric tube is inserted, and the baby is taken to x-ray for a "babygram." The film shows the NG tube coiled back upon itself in the upper chest and air in the gastrointestinal tract. The presumptive diagnosis at this time is:
- A. Complete discontinuity of the esophagus, with no T-E fistula.
 - B. Congenital diaphragmatic hernia.
 - C. Duodenal atresia.
 - D. H-type tracheoesophageal fistula.
 - E. Proximal esophageal atresia with distal tracheoesophageal fistula.
41. A 3-day-old, full-term baby boy is brought in because of feeding intolerance and bilious vomiting. X-rays show multiple dilated loops of small bowel and a "ground glass" appearance in the lower abdomen. The child's mother has cystic fibrosis. Which of the following is a diagnostic test that would also have therapeutic value for this infant?
- A. Barium enema.
 - B. Colonoscopy.
 - C. Endoscopic retrograde cholangiopancreatography (ERCP).
 - D. Full thickness rectal biopsy.
 - E. Gastrografin enema.

42. The parents of a 6-month-old baby boy report that their son has two problems. At times he has stridor, crowing respiration, and respiratory distress, during which he hyperextends his neck. He also seems to have some difficulty swallowing. Bronchoscopy shows segmental tracheal compression and rules out tracheomalacia. A barium swallow shows extrinsic compression upon the esophagus. Correction of this baby's anomaly will be achieved by:
- A. Endoscopic fulguration of congenital webs.
 - B. Surgical division and repositioning of the trachea.
 - C. Surgical division of an abnormal blood vessel.
 - D. Surgical enlargement of the thoracic inlet.
 - E. Surgical rerouting of the esophagus.
43. A 22-year-old man shows up at the ER with obvious congestive heart failure, which he says he developed in just a few days. When his private cardiologist saw him recently for a regular check-up, his heart was normal. He has fever and a loud diastolic murmur at the right second intercostal space, and his blood pressure is 130 over 20. He is a wealthy young man who admits to self-administering intravenous heroin. This man will need:
- A. Closure of ventricular septic defect with a pericardial patch.
 - B. Elective aortic valve repair if he develops a 50 mm gradient.
 - C. Emergency aortic valve replacement and long-term antibiotics.
 - D. Emergency mitral valve repair and long-term antibiotics.
 - E. Emergency pulmonic valve commissurotomy.

44. A 73-year-old chronic smoker has a chest x-ray as part of his ongoing medical care for very severe COPD. The film shows a new central hilar mass, and bronchoscopy and biopsies have diagnosed squamous cell carcinoma. He has FEV₁ of 1,100, and 55% of lung function comes from the affected lung, according to a ventilation-perfusion scan. In order to determine operability, this man needs:
- A. CT scan to rule out liver metastasis.
 - B. Endobronchial ultrasound to biopsy carinal nodes.
 - C. Mediastinal exploration via a collar incision.
 - D. No further tests; he is a good candidate for palliative pneumonectomy.
 - E. No further tests; he is not a surgical candidate.
45. A 39-year-old male known to have atrial fibrillation has sudden onset of pain in his entire right lower extremity. The leg is cold, pulseless, and paresthetic, and he cannot move it. He arrived at the ER within an hour of the onset of his symptoms. He will need to be treated with:
- A. Dacron prosthetic vascular conduits.
 - B. Fogarty catheters.
 - C. Heparin and dicumarol.
 - D. Saphenous vein bypasses.
 - E. Selective sympathetic blocks.

46. A 65-year-old West Texas farmer of Swedish ancestry has an indolent, raised, waxy 1.2-cm skin mass over the bridge of the nose that has been slowly growing over the past 3 years. There are no enlarged lymph nodes in the head and neck. This is a pretty good description for a:
- A. Basal cell carcinoma.
 - B. Invasive melanoma.
 - C. Pyogenic granuloma.
 - D. Squamous cell carcinoma.
 - E. Superficial melanoma.
47. Very reliable parents bring in a 4-year-old boy because in the last 6 months he has developed strabismus. Indeed, his eyes both look inward. Treatment for this child should be:
- A. Based on the use of corrective lenses.
 - B. Considered only for cosmetic reasons.
 - C. Delayed until puberty.
 - D. Done as soon as possible to avoid amblyopia.
 - E. Done if spontaneous correction has not occurred by age 7.

48. A 15-year-old girl has a round, 1-cm cystic mass in the midline of her neck at the level of the hyoid bone. When the mass is palpated at the same time that the tongue is pulled, there seems to be a connection between the two. The mass has been present for at least 10 years but only recently bothered the patient because it got infected. The most likely diagnosis is:
- A. Branchial cleft cyst.
 - B. Cystic hygroma.
 - C. Epidermal inclusion cyst.
 - D. Metastatic thyroid cancer.
 - E. Thyroglossal duct cyst.
49. A 69-year-old man who smokes and drinks and has rotten teeth has a unilateral, right-sided earache that has not gone away in 6 weeks. Physical examination shows serous otitis media on the right side, but not on the left. Palpation inside his mouth shows induration in the area where the right eustachian tube opens into the pharynx. The diagnosis of his problem will most likely be established by:
- A. Audiometry.
 - B. Biopsies of the tympanic membrane and ear canal.
 - C. Cultures of fluid aspirated from the affected middle ear.
 - D. MRI studies of the eighth nerve.
 - E. Panendoscopy (triple endoscopy) and biopsies.

50. A fully conscious 55-year-old man is brought to the ER from the scene of an auto accident. Because he has multiple fractures to the face and base of the skull, a resident checks the function of his cranial nerves. The resident's note records that both seventh nerves are functioning normally. By the next morning, the patient has developed unilateral facial nerve paralysis. What is the most likely cause of this new finding, and what should be done about it?
- A. Edema compressing the nerve; no specific therapy.
 - B. Leaking cerebrospinal fluid; antibiotics.
 - C. Nerve entrapment; surgical decompression.
 - D. Nerve transection; surgical repair.
 - E. Viral infection; antivirals.
51. A 38-year-old woman is sick and tired of sitting up in bed all night, taking digitalis and diuretics, and being short of breath all the time. She asks if surgery could be done to help her. At age 18 she had rheumatic fever, and for the past 6 years she has suffered from progressive dyspnea on exertion, orthopnea, paroxysmal nocturnal dyspnea, cough, and hemoptysis. She looks thin and cachectic, and she has atrial fibrillation and a low-pitched, rumbling, diastolic apical murmur. The preferred procedure would be:
- A. Closure of the ventricular septal defect.
 - B. Mitral annuloplasty to tighten her incompetent mitral valve.
 - C. Mitral commissurotomy to open a stenotic mitral valve.
 - D. Prosthetic replacement of the aortic valve.
 - E. Prosthetic replacement of the mitral valve.

52. Because of an episode of hemoptysis, a chest x-ray is done on a 66-year-old chronic smoker. A previously nonexistent central hilar mass is discovered, and biopsy via bronchoscopy diagnoses squamous cell carcinoma. The patient has an FEV₁ of 1,950, and a ventilation-perfusion scan shows that 40% of pulmonary function comes from the affected lung. Further workup should:
- A. Assess cardiac risk, because pneumonectomy is indicated.
 - B. Be directed at establishing the subtype of cancer.
 - C. Be directed at evaluating the presence or absence of metastasis.
 - D. Not be done, because he cannot tolerate a pneumonectomy.
 - E. Not be done, because the proper treatment is not surgical.
53. A 75-year-old hypertensive woman has extremely severe chest pain of sudden onset. She reports pain that feels like tearing, radiates to the back, and migrated down shortly after it began. When seen in the ER she has a blood pressure of 225 over 115, unequal pulses in the upper extremities, and a wide mediastinum on chest x-ray. She has a creatinine of 4, and EKG and cardiac enzymes rule out a myocardial infarction. The next step in her management should be:
- A. Emergency MRI angiogram.
 - B. Gastrografin swallow, followed by barium if negative.
 - C. Pulmonary angiography.
 - D. Spiral CT scan enhanced with intravenous dye (CT angio).
 - E. Ventilation-perfusion scan.

54. A 75-year-old farmer of Irish ancestry who has lived all his life in Alice, Texas, has a nonhealing, indolent 4-cm ulcer over the left temple. The ulcer is punched-out and clean-looking and has been slowly growing over the past 3 years. There are no enlarged lymph nodes in the head or neck. Proper management would best be dictated by:
- A. Full thickness biopsy at the center of the lesion.
 - B. Full thickness biopsy at the edge of the lesion.
 - C. Pathological studies after the entire lesion has been resected, with a 2-cm margin all around.
 - D. Response to a trial of radiation therapy.
 - E. Scrapings and cultures of the ulcer base.
55. The health care provider at the well-baby clinic observes that a 1-year-old child has a white pupil on the right side. Fearing a possible retinoblastoma, the provider requests an ophthalmological consultation. This report reads, "Leukocoria due to congenital cataract. Please discuss elective removal with the parents." What is the best response to the parents about the timing of such an operation?
- A. It is already too late to avoid amblyopia.
 - B. It is entirely at the discretion of the parents.
 - C. Surgery should await possible spontaneous involution.
 - D. Surgery should be done as soon as possible to avoid amblyopia.
 - E. Surgery should not be done until after age 7.

56. A 17-year-old girl has a 3-cm, fluctuant round mass on the side of her neck, just beneath and in front of the sternomastoid muscle, at the level of the superior edge of the thyroid cartilage. She reports that it has been there all her life but has slowly grown to its present size over the past few years. A curious physical finding is a little dimple on the skin, right over the mass. CT scan shows the mass to be cystic. This is probably a:
- A. Branchial cleft cyst.
 - B. Cystic hygroma.
 - C. Metastatic tumor.
 - D. Necrotic lymphoma.
 - E. Thyroglossal duct cyst.
57. A 53-year-old man complains of hearing loss. When tested with a tuning fork, he is found to have unilateral sensory hearing loss, affecting the right side only. He is right-handed but does not engage in any activity that would expose that side to loud noise that would not affect the opposite side. He has no other symptoms. Further workup should look for:
- A. A plug of cerumen.
 - B. Acoustic nerve neuroma.
 - C. Hemorrhagic cerebrovascular disease.
 - D. Ischemic cerebrovascular disease.
 - E. Occult parotid tumor.

58. A 42-year-old woman that you have been treating for frontal and ethmoid sinusitis calls your office to report that she is running a high fever, and that she woke up this morning with severe pain in the middle of her face, as well as double vision. This lady will need:
- A. An appointment to see an ophthalmologist.
 - B. Emergency craniotomy to drain pus from her cavernous sinus.
 - C. In-hospital IV antibiotics and drainage of the paranasal sinuses.
 - D. Transnasal surgical extraction of clots from the cavernous sinus.
 - E. X-rays of her face to make a proper diagnosis.
59. A 73-year-old man suddenly loses vision from his left eye and cannot move the right half of his body. Within minutes, he is taken by ambulance to a local hospital that has been designated as the medical facility staffed and equipped to treat ongoing strokes. The man is conscious but frightened and confused, and he cannot say whether he has a headache or not. The next step in his management should be:
- A. Arteriogram to identify and embolize the source of intracranial bleeding.
 - B. CT scan of his head to rule out intracranial bleeding or very extensive infarct.
 - C. Intravenous infusion of tissue-type plasminogen activator (t-PA).
 - D. Make arrangements to treat with t-PA if he has not recovered after 3 hours.
 - E. Spinal tap to rule out subarachnoid bleeding.

60. A 15-year-old girl has gained weight and “become ugly.” She brings a picture of herself, taken a year ago, showing a lovely-looking young woman. Now she has a hairy, red, round face full of pimples; her neck has a posterior fat hump; and her supraclavicular areas are round and convex. She has a fat trunk and thin extremities, as well as mild diabetes and hypertension. Which of the following tests will eventually help establish a diagnosis?
- A. Aldosterone and renin determinations.
 - B. Dexamethasone suppression tests.
 - C. MRI of the adrenal glands.
 - D. Urinary collection of catecholamines.
 - E. Urinary collection for 5-hydroxyindoleacetic acid.
61. A 60-year-old man complains of extremely severe, sharp shooting pain in his face, “like a bolt of electricity.” The pain is brought about by touching a specific area and occurs many times during the day, each episode lasting about 60 seconds. Neurologic exam is normal, but it is noted that part of his face is unshaven because he fears touching that area. Once organic lesions have been ruled out with an MRI, treatment should begin with:
- A. Carbamazepine.
 - B. Glucosamine.
 - C. Ibuprofen.
 - D. Oxycodone.
 - E. Steroids.

62. A 23-year-old man presents in the ER with extremely severe testicular pain, of recent onset. He has fever of 103°F and pyuria. The affected testis is in the normal position, appears to be swollen, and is extremely tender to palpation. The cord above the testis is equally tender. Gently supporting and lifting the scrotal contents affords slight relief from the pain. The proper management includes:
- A. Antiviral medications.
 - B. Emergency surgery and bilateral orchiopexy.
 - C. Sonogram and antibiotics.
 - D. Trans-scrotal biopsy.
 - E. Unilateral testicular resection.
63. A 16-year-old boy goes on a beer-drinking binge for the first time in his life and shortly thereafter develops severe, colicky flank pain. This is a classic scenario for:
- A. Bladder calculi.
 - B. Low implantation of one ureter.
 - C. Ureteropelvic junction obstruction.
 - D. Urethral stone.
 - E. Vesicoureteral reflux.

64. A pre-employment chest x-ray shows a large peripheral coin lesion in a 25-year-old man. Physical exam discloses a hard testicular mass, and orchiectomy by the inguinal route provides a diagnosis of seminoma. Further therapy for this young man should include:
- A. Contralateral orchiectomy.
 - B. Cyclophosphamide.
 - C. 5-FU and methotrexate.
 - D. Only palliative care because his prognosis is hopeless.
 - E. Platinum-based chemotherapy.
65. A 66-year-old diabetic man with generalized arteriosclerotic occlusive disease reports gradual loss of erectile function. At first he could get erections, but they did not last long; later the quality of the erections was poor; and eventually there were no erections at all. With the use of a short strip of postage stamps from a perforated roll, it is shown that he has no nocturnal erections either. The first line of therapy in this man should be:
- A. Implantable prosthesis.
 - B. Nerve reconstruction.
 - C. Psychotherapy.
 - D. Sildenafil (Viagra).
 - E. Vascular surgery.

66. Ten days after a cadaveric liver transplantation and initiation of a standard immunosuppressive regimen, the 55-year-old recipient begins to have elevated levels of gamma glutamyl transferase, alkaline phosphatase, and bilirubin. Workup should start with:
- A. Determination of portal pressures.
 - B. Liver biopsy.
 - C. Rechecking of ABO matching.
 - D. Trial of steroid boluses.
 - E. Ultrasound and Doppler studies.
67. A 46-year-old man involved in a severe automobile collision arrives in the ER unconscious with multiple facial fractures, brisk bleeding into his nose and mouth, and gurgly, irregular, and noisy breathing. Several attempts at endotracheal intubation have failed because the blood obscures the view and the nose does not have a lumen anymore. Five minutes have passed. It is time to do:
- A. Cricothyroidotomy.
 - B. Emergency percutaneous tracheostomy over a light source.
 - C. Emergency tracheostomy via a collar incision at the base of the neck.
 - D. High-frequency ventilation by facial mask.
 - D. Percutaneous needle insertion into the upper thyroid notch.

68. A young woman has been stabbed in the chest with a 6-inch-long kitchen knife. She has an entry wound just to the left of the sternal border, at the fourth intercostal space. Her blood pressure is 80 over 50, her pulse rate is 110, and she is cold, pale, and perspiring heavily. She has big, distended veins in her face and neck, but she is breathing normally and has bilateral breath sounds. The next step in management should be:
- A. Administer diuretics to lower the venous congestion.
 - B. Empty the pericardial sac by the most expeditious means.
 - C. Get a chest x-ray to establish a proper diagnosis.
 - D. Place bilateral chest tubes.
 - E. Suture the laceration on her chest wall.
69. A pedestrian is hit by a car. He arrives in the ER in coma. He has clear fluid dripping from the left ear and a dark bruise behind his ear and over his left mastoid area. As he is being taken to the CT scanner for a scan of the head, you would recommend that:
- A. He first be given high-dose corticosteroids.
 - B. He first be placed on antibiotics.
 - C. The CT scan be deferred until he is no longer leaking cerebrospinal fluid.
 - D. The CT be extended to include his neck.
 - E. The CT scan be preceded by cervical spine x-rays.

70. A 19-year-old male is shot once in the neck with a .22-caliber revolver. It is obvious from the location of the entrance wound and the location of the bullet in x-rays that the entire trajectory lies above the level of the angle of the mandible, but the bullet has not entered the skull. The patient is not yet in shock, but his blood pressure has been slowly declining. Further evaluation would best be done by:
- A. Arteriogram.
 - B. Barium studies.
 - C. Continued clinical observation.
 - D. Endoscopy.
 - E. Surgical exploration.
71. You are checking a newborn baby boy in the nursery as his father anxiously watches the proceedings. One of the baby's testicles is in the canal, rather than the scrotum. You can easily pull it down to its proper location, but it will not stay there: It snaps right back up. The father has heard about undescended testicles and asks you what should be done with his child. You explain to him that:
- A. If it has not descended by 1 year, the boy will need an orchiopexy.
 - B. Hormonal therapy will hasten the testicular descent.
 - C. The child should be worked up for chromosomal abnormalities.
 - D. We no longer believe that undescended testicles become malignant.
 - E. What his child has is a hyperactive cremasteric muscle.

72. A 31-year-old woman crashes her car against a bridge abutment. She has multiple injuries, including upper and lower extremity fractures. Her blood pressure is 135 over 75, and her pulse rate is 82. On physical exam she has a rigid, tender abdomen with guarding and rebound on all quadrants. The next step in management should be:
- A. CT scan of the abdomen.
 - B. Continued clinical observation.
 - C. Diagnostic peritoneal lavage.
 - D. Exploratory laparotomy.
 - E. Sonogram of the abdomen.
73. A 22-year-old man is shot twice in the abdomen with a .22-caliber handgun. One entry wound lies to the left of the umbilicus, with the bullet lodged in the right psoas muscle. The second entry wound is just above the pubis, and that bullet is in the middle of his abdomen. He has gross hematuria. Evaluation of the hematuria would best be done by:
- A. CT scan of the abdomen.
 - B. Cystoscopy.
 - C. Exploratory laparotomy.
 - D. Intravenous pyelogram.
 - E. Retrograde urethrogram.

74. The mother of a 1-year-old child brings him in because she has felt a mass in the baby's abdomen. While she cradles and pacifies him, you can palpate a mass in the right upper quadrant that clearly moves up and down with respiration. You plan to do imaging studies, but right now you suspect—and you therefore also want to measure:
- A. Benign liver hemangioma; unconjugated bilirubin.
 - B. Choledochal cyst; bilirubin and alkaline phosphatase.
 - C. Malignant tumor of the liver; alpha fetoprotein.
 - D. Neuroblastoma of the right adrenal gland; catecholamine by-products in the urine.
 - E. Wilms tumor of the right kidney; red cells in the urine.
75. A 53-year-old woman comes in because of a breast mass. Two days ago she noticed a lump on self-examination. She has a 2-cm, firm, nontender mass in the left breast, which is movable within the breast. She has no prior history of breast disease, but she is a well-read and well-informed patient who gets regular screening mammograms. She is due for her next one in 3 months. The next step in management should be:
- A. Do fine-needle aspiration (FNA), and nothing more if no cancer cells are seen.
 - B. Do mammographically or sonographically guided core biopsies.
 - C. Do surgical excision of the mass.
 - D. Wait one full menstrual cycle for possible spontaneous resolution.
 - E. Wait for the mammogram that she is already scheduled for.

76. You get a phone call from a frantic mother. Her 7-year-old girl spilled Liquid-Plumr all over her arms and legs. You can hear the girl screaming in pain in the background. You should instruct the mother to:
- A. Cover the burned areas with triple antibiotic ointment.
 - B. Get the girl in the shower and wash her for at least 30 minutes before bringing her in.
 - C. Get the girl to the ER as soon as possible.
 - D. Wash the burned areas with diluted vinegar.
 - E. Wrap the burned areas in sterile dressings before coming to the ER.
77. Three hours ago, a 72-kg man sustained second- and third-degree flame burns to an estimated 35% of his body surface. Ringer lactate without sugar has been infused at a rate of 1 liter per hour, and his urinary output has been measured by an indwelling catheter. In those first 3 hours his urinary output was 290 mL/h, 315 mL/h, and 350 mL/h. Based on that information, you should:
- A. Administer diuretics.
 - B. Continue the infusion at the same rate.
 - C. Decrease the rate of fluid administration.
 - D. Start using dextrose-containing solutions.
 - E. Switch from Ringer lactate to plasma.

78. During a wilderness trek at a national park, a young woman inadvertently bumps into a beehive and is repeatedly stung by a swarm of angry bees. She is rushed to the first aid station, where she is found to be wheezing, hypotensive, and madly scratching an urticarial rash. The drug of choice in this setting is:
- A. Alpha-blocker.
 - B. Antivenin.
 - C. Dopamine.
 - D. Epinephrine.
 - E. Propranolol.
79. A 5-year-old boy is brought in by concerned parents because he is “knock-kneed.” Indeed he is, although he appears to be quite happy and has no complaints. The parents should be:
- A. Advised that corrective shoes will solve the problem.
 - B. Asked to consent to appropriate x-ray studies.
 - C. Reassured that this is normal.
 - D. Told that the child has Blount disease and needs surgery.
 - E. Told that the growth plate must be defective.

80. A 68-year-old woman arrives in the ER with a clinically obvious fracture of the radius and a possible dislocation of the ulnar styloid process. When questioned about the trauma that caused the injury, the woman reports that there was none: She attempted to lift a heavy bag of groceries, and "My arm broke." You immediately suspect:
- A. Metastatic osteolytic cancer.
 - B. Osteitis fibrosa cystica from parathyroid disease.
 - C. Osteomalacia from nutritional deficiency.
 - D. Osteoporosis.
 - E. Primary malignant bone tumor (osteogenic sarcoma).
81. A 36-year-old man comes in complaining of wrist pain. He says that he fell on his outstretched hand, and on physical exam he is distinctly tender when you press over his anatomic snuff-box. X-rays of the area are read as negative. The diagnosis and appropriate management are:
- A. Carpal navicular (scaphoid) fracture; thumb spica cast.
 - B. De Quervain tenosynovitis; steroid injections.
 - C. Ligamentous injury; ace bandages and analgesics.
 - D. Nothing broken or damaged; reassurance.
 - E. Radial bone hairline fracture; no specific therapy needed.

82. A 22-year-old football player has to be carted off the field after his knee is injured. He has severe knee pain and swelling. You sit him at the edge of the examination table with his legs dangling, then grasp and pull the affected leg. It extends toward you as if you were opening a drawer. The injured structure is:
- A. Anterior cruciate ligament.
 - B. Lateral collateral ligament.
 - C. Medial collateral ligament.
 - D. Medial meniscus.
 - E. Posterior cruciate ligament.
83. The front-seat passenger in a car crash is brought to the ER. He was not wearing a seatbelt, and he states that he hit the dashboard with his knees and complains of pain in his right hip. He lies in the stretcher in the ER with the right lower extremity shortened, adducted, and internally rotated. He probably has:
- A. A sprain of some sort that is not an emergency.
 - B. Femoral neck fracture.
 - C. Intertrochanteric fracture.
 - D. Posterior dislocation of the hip.
 - E. Posterior dislocation of the knee.

84. A 77-year-old man wants to know if something can be done to improve the function of his right hand. The hand is contracted, and palmar fascial nodules are readily palpable. In casual conversation, he mentions that his parents were Norwegian immigrants. The most likely diagnosis is:
- A. Carpal tunnel syndrome.
 - B. De Quervain tenosynovitis.
 - C. Dupuytren contracture.
 - D. Palmar tenosynovitis.
 - E. Rheumatoid arthritis.
85. A 67-year-old man has had an indolent, nonhealing ulcer at the heel of the right foot for several weeks. The ulcer base looks dirty, and there is hardly any granulation tissue. The patient began wearing a new pair of shoes shortly before the ulcer started and noticed a blister where the ulcer eventually developed, but he was not concerned because he felt no pain at all in that area. Dorsalis pedis pulses are palpable. He is obese, has high cholesterol, and has poorly controlled type 2 diabetes mellitus. The events leading to the ulcer can be summarized as:
- A. Allergy to leather, inflammatory response, necrosis.
 - B. Arteriosclerosis, large vessel disease, ischemic ulceration.
 - C. Diabetic neuropathy, pressure point, small vessel disease.
 - D. Infection, poor immune response, fungal tissue destruction.
 - E. Venous insufficiency, edema, induration, ulceration.

86. A 66-year-old man with advanced cirrhosis of the liver has been bleeding on and off from a duodenal ulcer. He is being evaluated for possible surgical intervention. Clinically, he has ascites and encephalopathy. The lab reports total bilirubin 4.2, INR of 2 (prothrombin time 28), and serum albumin 2.4. Further management should be:
- A. Administration of albumin prior to surgery.
 - B. Administration of vitamin K prior to surgery.
 - C. Dialysis to lower the bilirubin prior to surgery.
 - D. All the three steps outlined above, then surgery.
 - E. An alternative therapy, because he is not a surgical candidate.
87. A 57-year-old man has had an exploratory laparotomy for a gunshot wound of the abdomen. He had 2 bullet holes in the small bowel that were easily repaired. The bullet was embedded in the psoas muscle, and no effort was made to remove it. The abdomen was thoroughly irrigated after surgery, and his abdominal closure left the skin open. His urinary bladder had to be catheterized twice post-op because he could not void. He has been walking since day 1, and began oral fluids on day 3. That evening he developed a fever spike to 103°F; he had been afebrile on days 1 and 2. The most likely diagnosis is:
- A. Atelectasis.
 - B. Deep thrombophlebitis.
 - C. Intraabdominal abscess.
 - D. Urinary tract infection.
 - E. Wound infection.

88. A 21-year-old male has had multiple problems while in the ICU recovering from a laparotomy for a gunshot wound. Initially, his chest x-rays and respiratory function were normal, but he now has bilateral pulmonary infiltrates and a PO_2 of 65 while breathing 40% oxygen. There is no evidence of congestive heart failure. The diagnosis and appropriate therapy are:
- A. Adult respiratory distress syndrome; positive-end expiratory pressure (PEEP).
 - B. Aspiration pneumonia; bronchoscopy and lavage.
 - C. Fat embolism; steroids.
 - D. Pneumonia; antibiotics.
 - E. Pulmonary failure; long-term 100% oxygen by mask.
89. A 58-year-old man who had presented with pneumaturia had a laparotomy for resection of the sigmoid colon and repair of the urinary bladder. The postoperative diagnosis was colovesical fistula secondary to diverticulitis, and the incision used was a lower midline. On the fifth postoperative day, you are called to see him because he has been soaking his dressings with large amounts of clear salmon-pink-colored fluid with no particular odor. The Foley catheter has been draining normally. At this time you should:
- A. Ask him to get up and go to the examining room for a good look at his incision.
 - B. Culture the fluid and start empiric antibiotic therapy.
 - C. Remove the dressings and probe the wound until pus is found and drained.
 - D. Stop all oral feedings and begin parenteral nutrition.
 - E. Tape and bind the wound securely while planning surgical reclosure.

90. A 71-year-old man comes in with severe diabetic ketoacidosis, profound dehydration, and a serum potassium concentration of 5.2 mEq/L. After several hours of vigorous therapy with insulin and rehydration with normal saline, his serum potassium concentration is reported as 2.9 mEq/L. That marked difference is best explained as due to:
- A. Correction of acidosis and return of potassium to the cells.
 - B. Dilution due to volume correction.
 - C. Laboratory error.
 - D. Renal exchange of sodium for potassium.
 - E. Renal failure due to dehydration.
91. A 44-year-old man comes to the ER at 2:00 a.m. because he just vomited a large amount of bright red blood. When you approach him to take a history, he reeks of alcohol. He gives you a remarkably lucid account of drinking at several bars, then having a couple of hours of vomiting and retching that brought up only clear fluid, and finally vomiting the bloody emesis. This is a pretty good description of:
- A. Bleeding esophageal varices.
 - B. Erosive gastritis.
 - C. Esophageal perforation (Boerhaave syndrome).
 - D. Mallory-Weiss tear.
 - E. Stress ulceration.

92. A 58-year-old man gives a history of 2 months of increasing constipation and a remarkable change in the appearance of his stools. They are no longer “like cigars” but have become flat, like a ribbon. Most alarmingly, for a few weeks now he has seen bright red blood coating the outside of those flat stools. The most likely diagnosis is:
- A. Anal fissure.
 - B. Cancer of the cecum.
 - C. Cancer of the rectum.
 - D. Condyloma acuminata of the anus.
 - E. Internal hemorrhoids.
93. An emaciated 29-year-old, HIV-positive man, who is the receptive member of a homosexual couple, states that for several months he has been having bloody bowel movements. Physical exam yields two impressive findings: He has a fungating mass growing out of his anus, and his inguinal nodes are enlarged and rock hard on both sides. He probably has:
- A. Adenocarcinoma of the rectum.
 - B. Condyloma acuminata of the anus.
 - C. External hemorrhoids.
 - D. Rectal prolapse.
 - E. Squamous cell carcinoma of the anus.

94. A 50-year-old woman is lying motionless on a stretcher in the ER. She is obviously in extreme pain, which she says came on suddenly and is generalized all over her belly. She is very reluctant to be touched, but you gently ascertain that she has a rigid abdomen, with muscle guarding and rebound on all quadrants and no bowel sounds. A CT scan taken before you were called shows free air under the diaphragm. The diagnosis is:
- A. Acute obstruction of some intraabdominal viscera.
 - B. An acute abdomen, the nature of which cannot be defined.
 - C. An acute inflammatory process in the abdomen.
 - D. Perforation somewhere in the GI tract.
 - E. Rupture of a fluid collection with chemical peritonitis.
95. A 44-year-old woman is recovering from an episode of acute ascending cholangitis, secondary to choledocholithiasis. She develops fever and leukocytosis with some tenderness in the right upper quadrant. There is minimal elevation of the liver function tests, and a sonogram shows normal-size biliary ducts and a liver abscess 8 cm in diameter. Therapy for this patient will be centered on:
- A. ERCP and sphincterotomy.
 - B. Long-term intravenous antibiotics.
 - C. Metronidazole.
 - D. Open surgical resection of the affected lobe.
 - E. Percutaneous drainage of the liver abscess.

96. An obese 44-year-old white woman comes in with a history of episodes of nausea, vomiting, and colicky right upper quadrant abdominal pain that radiates to the right shoulder and around to the back. She says the pain usually starts after she eats fatty food, and often it goes away spontaneously in less than an hour. If not, one of her older 5 children takes her to an urgent care clinic, where she is given anticholinergics and gets better. This patient is completely asymptomatic right now, and her physical exam is unremarkable. The next step in management should be:
- A. Counseling the patient to avoid greasy foods.
 - B. Endoscopy of the upper GI tract.
 - C. Magnetic resonance imaging (MRI) of the upper abdomen.
 - D. Sonogram of the right upper quadrant.
 - E. Upper GI series with barium.
97. A 9-month-old baby girl is brought in because she has an umbilical hernia. The defect is 1 cm in diameter, and the contents are freely reducible. You recommend:
- A. Elective laparoscopic surgical repair.
 - B. Elective open surgical repair.
 - C. No therapy unless the hernia persists beyond age 2.
 - D. Repeated injections of sclerosing agents.
 - E. Urgent surgical repair.

98. A 79-year-old woman has a firm, movable 3-cm mass in her left breast, which has been present for 4 months. She was seen elsewhere a month ago, and she brings a report that essentially says her mammogram is not diagnostic of cancer but cannot rule it out either. The next step in management should be:
- A. Excision of the mass in the operating room.
 - B. Fine needle aspiration (FNA) of the mass.
 - C. Radiographically guided core biopsies.
 - D. Reassurance and a follow-up visit scheduled in 1 year.
 - E. Repeat the mammogram in 1 month.
99. A 63-year-old woman has a 4-cm mass just under the nipple and areola of her right breast. Her breast is small and the mass occupies most of it, although it can be easily moved from the chest wall. She had multiple core biopsies taken at a breast imaging center, and the diagnosis is infiltrating ductal carcinoma. She has no other lesions, and physical exam of the axilla is negative. The most appropriate surgical component of her treatment is:
- A. Lumpectomy alone.
 - B. Lumpectomy and axillary sampling.
 - C. Lumpectomy with axillary dissection, removing all nodes.
 - D. Mastectomy and sentinel node axillary sampling.
 - E. Mastectomy with complete emptying of the axillary nodes.

100. A 33-year-old woman has been having constant pain in her back for the past 3 weeks, and physical exam reveals two well-circumscribed areas in her thoracic spine that are tender to palpation. She had a lumpectomy for breast cancer a year ago, followed by chemotherapy and radiation. She is currently on tamoxifen. The nature of this patient's problem could best be diagnosed with:
- A. AP and lateral chest x-rays.
 - B. Magnetic resonance imaging (MRI).
 - C. Needle biopsies of the tender areas.
 - D. Radionuclide bone scan.
 - E. Sonogram of the affected areas.
101. A 44-year-old woman has virulent peptic ulcer disease. Extensive medical management, including the use of proton pump inhibitors and eradication of *H. pylori*, fails to heal her ulcers. She has 3 ulcers in the first and second portions of her duodenum, and she also has watery diarrhea. Given this clinical course, we should:
- A. Biopsy the duodenal ulcers.
 - B. Culture the watery stools.
 - C. Measure serum gastrin.
 - D. Repeat the eradication of *H. pylori* every 2 months.
 - E. Replenish her normal gut flora.

102. In the second week of life, a baby girl has protracted vomiting of green fluid. X-rays are done, and the radiologist reports, "Double-bubble sign with normal gas pattern in the rest of the abdomen." This little girl probably has:
- A. Annular pancreas.
 - B. Duodenal atresia.
 - C. Intestinal atresia.
 - D. Malrotation.
 - E. Meconium ileus.
103. A 1-year-old baby is referred for treatment of a subdural hematoma. In the admission examination retinal hemorrhages are noted. The most likely diagnosis is:
- A. Fibrinogen deficiency.
 - B. Hemophilia.
 - C. Platelet functional disorder.
 - D. Shaken baby syndrome.
 - E. Wallenberg syndrome.

104. A 3-day-old premature baby boy is noted to have a precordial machinery-like murmur. He also has mild pulmonary congestion, a wide pulse pressure, and radiological signs of increased pulmonary blood flow. He is not in congestive failure. This profile makes him a good candidate to be treated with:
- A. Beta blockers.
 - B. Decongestants.
 - C. Indomethacin.
 - D. Radiological closure.
 - E. Surgical closure.
105. A 62-year-old man has dyspnea on exertion, hepatomegaly, and ascites. As part of his workup, a balloon-tipped catheter (Swan-Ganz) is introduced into his jugular vein and advanced so that it records the following pressures: right atrial, right ventricular diastolic, pulmonary artery diastolic, pulmonary capillary wedge, and left ventricular diastolic. It is reported that these pressures show a “square root sign” and equalization. The most likely diagnosis is:
- A. Acute aortic insufficiency.
 - B. Acute left ventricular failure.
 - C. Chronic constrictive pericarditis.
 - D. Chronic mitral stenosis.
 - E. Fluid overload in a patient with good ventricular function.

106. A 68-year-old man is brought to the ER with excruciating back pain that began suddenly 45 minutes ago. He is diaphoretic and has a systolic blood pressure of 90. There is an 8-cm, tender, pulsatile mass deep in his epigastrium, above the umbilicus. Chest x-ray and flat plate of the abdomen are unremarkable. Two years ago he was diagnosed with prostatic cancer and treated with orchiectomy and radiation. At this point the clinical assumption is that he has:
- A. Dissecting thoracic aortic aneurysm.
 - B. Fracture of lumbar pedicles with cord compression.
 - C. Herniated disc.
 - D. Metastatic tumor to the lumbar spine.
 - E. Rupturing abdominal aortic aneurysm.
107. A 32-year-old man has puzzling physical findings suggestive of heart disease. An echocardiogram is done, and the report says that a 5-cm solid tumor is growing out of the wall of the left ventricle. Except for surgical removal of a pigmented skin lesion from the middle of his back 3 years ago, the patient has been in excellent health all his life. He denies rheumatic fever or intravenous drug use. The most likely diagnosis is:
- A. Desmoplastic reaction in old endocarditis.
 - B. Metastatic melanoma.
 - C. Myxoma.
 - D. Rhabdomyosarcoma.
 - E. Vegetation from unrecognized rheumatic disease.

108. A 57-year-old myopic man calls his ophthalmologist's office. For the past 5 days he has been seeing flashes of light at night, when his eyes are closed. Three days ago, he began to see floaters during the day—at first just 2 or 3, but more than 20 now. Finally, when he woke up this morning, there was a dark cloud at the top of his visual field. All of these symptoms are affecting his right eye only, and he reports no pain in or near that eye. He probably has:
- A. Acute angle-closure glaucoma.
 - B. Age-related macular degeneration.
 - C. Embolic central retinal artery occlusion.
 - D. Retinal detachment.
 - E. Retinoblastoma.
109. A 72-year-old man presents with a lump in his neck, which he noticed about 4 months ago and has been slowly growing since. The mass is lateral to his upper thyroid notch, and it is now 4 cm in diameter, fixed, and nontender. Examination of his mouth reveals a few stumps of rotten teeth. When questioned on tobacco and alcohol use, the man says that he smokes 2 packs a day and drinks at least a pint of hard liquor daily. The next diagnostic step should be:
- A. Open excisional biopsy of the mass.
 - B. Open incisional biopsy of the mass.
 - C. Panendoscopy (triple endoscopy) and mucosal biopsies.
 - D. Radionuclide scan of the thyroid gland.
 - E. Sputum cytology and CT scan of the lungs.

110. The mother of a 2-year-old boy brings him in because “pus is running out of his nose.” Although the child resists examination, as he sits on his mother’s lap you notice that the foul-smelling fluid is coming out of only one nostril. The mother confirms that the nasal discharge has been happening for about a week. Given the child’s age and clinical presentation, you already suspect:
- A. Immunodeficiency.
 - B. Juvenile nasopharyngeal angiofibroma.
 - C. Maxillary sinusitis.
 - D. Nasal foreign body.
 - E. Septal perforation.
111. A 57-year-old man seeks help for “dizziness.” He says that the problem is triggered by sudden movements of his head, and he then feels that the room is spinning, “like being inside a washing machine.” There is no headache or any other neurological deficit. The terrifying episodes gradually go away if he stays very still and does not move his head. The location of his pathology is probably in:
- A. The carotid bifurcation.
 - B. The cerebellar cortex.
 - C. The cerebral cortex.
 - D. The inner ear.
 - E. The vertebral arteries.

112. A 42-year-old, right-handed man has a history of progressive speech difficulties and right hemiparesis for 5 months. He has had progressively severe headaches for the last 2 months, which are worse in the mornings. At the time of admission he is confused and vomiting and has blurred vision, papilledema, and diplopia. Shortly thereafter, his blood pressure goes up to 190 over 110 and he develops bradycardia. The rise in his blood pressure is due to:
- A. A brain tumor pressing on the hypothalamus.
 - B. A compensatory response to preserve brain perfusion (Cushing reflex).
 - C. Deviation of the brain stem.
 - D. Release of endorphins.
 - E. Shifting of cerebrospinal fluid.
113. A 23-year-old man comes in with otitis media and mastoiditis and is placed on appropriate antibiotics. When he returns in 2 weeks he complains of severe headache, seizures, blurred vision, and projectile vomiting. He says he has had a fever for the past week. The next diagnostic study should be:
- A. CT scan of the head.
 - B. Culture of aspirate from the recently affected ear.
 - C. Culture of cerebrospinal fluid obtained by spinal tap.
 - D. Radionuclide scans of the mastoid.
 - E. X-rays of the paranasal sinuses.

114. A newborn baby boy has not urinated at all during the first 18 hours of life. Physical exam shows a normal meatus and a distended urinary bladder. The child probably has:
- A. Anterior urethral valves.
 - B. Low implantation of the ureters.
 - C. Normal variant—newborns often do not urinate until day 2 or 3.
 - D. Posterior urethral valves.
 - E. Renal agenesis.
115. On a routine physical exam, a 65-year-old man is found to have a 1.5-cm, rock-hard mass in his prostate. His PSA is normal for his age. The next step in management is to:
- A. Do a transrectal needle biopsy of the mass.
 - B. Do a transrectal sonogram of the prostate.
 - C. Do a transurethral resection of the prostate (TURP).
 - D. Follow the evolution of the mass over the ensuing year.
 - E. Repeat his PSA before anything else is done.

116. The CT of a 59-year-old woman with severe ureteral colic shows a 7-mm ureteral stone at the ureteropelvic junction. She has a normal coagulation profile. Most urologists would treat this patient with:
- A. Analgesics and plenty of fluids in anticipation of spontaneous passage.
 - B. Endoscopic retrograde basket extraction.
 - C. Endoscopic retrograde laser vaporization of the stone.
 - D. Extracorporeal shock wave lithotripsy.
 - E. Open surgical removal.
117. A 4-year-old child has significant blood loss from a gunshot wound to the left arm. Direct pressure has stanching the bleeding, but fluid resuscitation is urgently needed. Repeated attempts to insert IV lines have been unsuccessful. The best alternate route is:
- A. Central line via subclavian puncture.
 - B. Infusion into intracranial sinuses via open fontanelles.
 - C. Intraosseous cannulation of the proximal tibia.
 - D. Percutaneous femoral vein cannulation.
 - E. Saphenous vein cut-down.

118. A spinal anesthetic is placed in a 52-year-old man in preparation for a hemorrhoidectomy. The patient's level of sensory block turns out to be much higher than intended, and he goes into shock. Blood pressure is recorded as 75 over 20, and CVP is near zero. The patient looks warm and flushed. He should be treated with:
- A. Diuretics and fluid restriction.
 - B. Inotropic agents and cardiac assist pump.
 - C. Vasoconstrictors and intravenous fluids.
 - D. Vasodilators and packed red cells.
 - E. Whole blood and clotting agents.
119. A 77-year-old man becomes "senile" over a period of 3 or 4 weeks. He used to be active and made an excellent living writing fiction and movie scripts. Now he stares at the wall all day long, barely recognizes his family, and is "a completely different person." Two weeks before the mental changes began, he fell from a horse but apparently sustained no serious injuries. You expect a CT scan of his head to show:
- A. Acute epidural hematoma.
 - B. Chronic subdural hematoma.
 - C. Diffuse intracranial bleeding.
 - D. Frontal lobe infarction.
 - E. Generalized brain atrophy.

120. An elderly man is rear-ended in an automobile collision and violently hyperextends his neck. He develops paralysis and burning pain in both upper extremities while maintaining good motor function in his legs. The most likely diagnosis is:
- A. Anterior cord syndrome.
 - B. Central cord syndrome.
 - C. Posterior cord syndrome.
 - D. Reflex sympathetic dystrophy.
 - E. Spinal cord hemisection.
121. A 25-year-old man is stabbed in the right chest. He comes in fully awake and alert, and in a normal tone of voice he states that he feels short of breath. His vital signs are normal and stable. On physical exam he has no breath sounds at the right base, and only faint breath sounds at the apex. A chest x-ray confirms that he has a hemothorax on that side. The next step in management should be:
- A. Exploratory thoracotomy.
 - B. Insertion of a chest tube aimed at the right base.
 - C. Insertion of a 16-gauge needle at the right second intercostal space.
 - D. Intubation and use of a respirator.
 - E. Oxygen by mask, analgesics, and no specific intervention.

122. The unrestrained front-seat passenger of a car that crashes at high speed arrives at the ER with signs of moderate respiratory distress. Physical exam shows no breath sounds at all on the left hemithorax. Vital signs are normal. Chest x-ray shows a collapsed left lung and multiple air fluid levels filling the left pleural cavity. A nasogastric tube that had been placed prior to taking the film shows the tube reaching the upper abdomen and then curling up into the left chest. Your diagnosis is:
- A. Blowout of pulmonary blebs.
 - B. Esophageal rupture or perforation.
 - C. Left diaphragmatic rupture.
 - D. Left hemopneumothorax.
 - E. Major injury to the tracheobronchial tree.
123. A 22-year-old convenience store clerk is shot with a .38-caliber revolver. The entry wound is in the left midclavicular line, 2 inches below the nipple. He is hemodynamically stable, complaining of generalized abdominal pain. Chest x-ray shows a small pneumothorax on the left, free air under both diaphragms, and the bullet lodged in the left paraspinous muscles. In addition to placing a chest tube on the left pleural space, he should also have:
- A. Barium swallow.
 - B. Bronchoscopy.
 - C. Exploratory laparotomy.
 - D. Extraction of the bullet via left thoracotomy.
 - E. Extraction of the bullet via local back exploration.

124. A 23-year-old man who sustained multiple injuries in an automobile accident is in shock upon admission. Although he is quickly resuscitated with intravenous fluids, his abdomen is tender all around and rapidly becoming distended. A focused abdominal sonogram for trauma (FAST test) confirms that his abdomen is full of blood. An exploratory laparotomy is quickly started, but he has so many injuries that surgery cannot be finished quickly. By the time everything has been repaired, he has received 12 liters of Ringer lactate and 6 units of packed red cells. When closure of his abdomen is attempted, the swollen edges will not easily come together. The surgeons should:
- A. Approximate the skin only, using towel clips.
 - B. Close the abdomen with heavy retention sutures.
 - C. Give diuretics and close the abdomen in the usual way.
 - D. Leave the abdomen and its contents open to the air.
 - E. Provide temporary bowel coverage with an absorbable mesh.
125. A 22-year-old woman loses control of an all-terrain vehicle (ATV), falls to the ground, and then is crushed when the ATV falls on top of her. She arrives to the ER with stable vital signs but obvious physical evidence of a pelvic fracture. When a Foley catheter is inserted, it recovers bloody urine. The best way to evaluate her urological injury would be:
- A. Cystoscopy.
 - B. Intravenous pyelogram.
 - C. Retrograde cystogram including post-void films.
 - D. Retrograde cystogram including views of the ureters.
 - E. Sonogram of the bladder.

126. A 33-year-old man is shot point-blank in his upper thigh with a .38-caliber revolver. The entrance wound is on the anterio-medial side, and x-rays show the bullet lodged in the muscles, 4 cm farther down. He has a large, expanding hematoma under the entry wound and no pulses below the injury. The next step in management should be:
- A. Arteriogram.
 - B. CT angio.
 - C. Doppler studies.
 - D. Embolectomy with Fogarty catheters.
 - E. Surgical exploration and repair.
127. A 57-year-old man weighing 60 kg sustains third-degree burns on both lower extremities. The injury occurred when his pants were accidentally doused with gasoline and ignited, and it appears that no part of either lower extremity was spared. It is decided to begin his fluid resuscitation with a predetermined infusion of Ringer lactate without sugar and to adjust the rate of infusion once data about hourly urinary output are obtained. What are the appropriate infusion rate and target urinary output for this patient?
- A. 250 mL/h, aiming for urinary output of 10–40 mL/h.
 - B. 500 mL/h, aiming for urinary output of 15–60 mL/h.
 - C. 750 mL/h, aiming for urinary output of 25–100 mL/h.
 - D. 1,000 mL/h, aiming for urinary output of 30–120 mL/h.
 - E. 1,500 mL/h, aiming for urinary output of 45–180 mL/h.

128. During a hunting trip, a young man is bitten on his lower leg by a coyote. The bite drew blood, but the flow was easily stopped by local pressure. The animal was captured and brought alive to the authorities. The need for rabies prophylaxis in this patient should be determined by:
- A. Confining the animal to a cage and watching its behavior.
 - B. Cultures of the bite wounds.
 - C. Killing the animal and examining the brain.
 - D. The patient's clinical course over the next few weeks.
 - E. The patient's history of previous childhood immunizations.
129. An obese 13-year-old boy has been limping and complaining of persistent left knee pain for several weeks. He gives no history of trauma. On physical exam his knee is not swollen, and it appears to be entirely normal. However, he has limited hip motion. He sits on the examination table with the sole of his left foot pointing to the right, and when his left hip is passively flexed it goes into external rotation and cannot be rotated internally. The most likely diagnosis is:
- A. Avascular necrosis of the femoral head.
 - B. Developmental dysplasia of the hip.
 - C. Osteogenic sarcoma of the lower femur.
 - D. Slipped capital femoral epiphysis.
 - E. Tibial torsion with foot inversion.

130. A 9-year-old girl injures her right forearm. X-rays show that the growth plate is laterally displaced from the metaphysis, but it is not broken. Gentle manipulation easily returns it to its normal location, and a cast is subsequently applied. The likely outcome of such closed reduction in this case is:
- A. Acceptable outcome with no future deformity.
 - B. Nerve injury leading to muscle atrophy.
 - C. Uneven growth deviating the wrist laterally.
 - D. Uneven growth deviating the wrist medially.
 - E. Vascular injury leading to Volkmann contracture.
131. A 42-year-old woman comes in with her left arm supported by an improvised sling and held close to her body. She states that when she woke up from an epileptic seizure 2 days ago, she had pain in that shoulder and could not move that arm. She went to an urgent care clinic, where she had AP and lateral x-rays taken and was told they were normal. You suspect—and intend to do:
- A. Anterior dislocation of the shoulder; oblique films.
 - B. Acromioclavicular separation; good physical exam.
 - C. Articular cartilage crushing; MRI of the shoulder.
 - D. Posterior dislocation of the shoulder; axillary or scapular lateral views.
 - E. Torn teres major and minor; MRI of the shoulder.

132. A 44-year-old man is brought in from the scene of an automobile accident. He has obvious clinical evidence of bilateral femur fractures, which x-rays show to be comminuted. Shortly after these films are taken, his blood pressure drops to 75 over 55, pulse rate reaches 105, and venous pressure is zero. He has no other pertinent findings. The reason for his hemodynamic situation is:
- A. Blood loss at the fracture sites.
 - B. Fat embolism.
 - C. Neurogenic shock from pain.
 - D. Unrecognized intracranial bleeding.
 - E. Unrecognized pericardial tamponade.
133. A 71-year-old man comes in with severe pain and swelling of his right ankle. He states that he lost his footing while going down a steep ladder and landed on his inverted foot. AP, lateral, and mortise x-rays show displaced fractures of both malleoli. He should be treated with:
- A. Closed reduction after the swelling goes down.
 - B. Closed reduction and casting now.
 - C. Open reduction and internal fixation.
 - D. Posterior splint and early ambulation.
 - E. Skeletal traction.

134. A 44-year-old man sustains a closed head injury in an automobile accident in which he flew through the windshield and landed on the hood of the car. He is in coma. His pupils are of equal size, and both react to light. He also has scalp lacerations and minor facial scratches. In addition to CT scan of the head, the proper radiological evaluation of this patient should include:
- A. Base of the skull x-rays.
 - B. Extension of the CT to include the neck.
 - C. MRI of the brain.
 - D. Skull x-rays looking for depressed fractures.
 - E. X-rays of the maxillary sinuses.
135. A 45-year-old woman attempts to lift a heavy object and suddenly has very severe back and posterior left leg pain, which she describes as “a bolt of electricity.” The pain is aggravated by coughing or straining, and it becomes excruciating if her leg is raised while extended. Bladder function, rectal sphincter tone, and perineal sensation are normal. The diagnostic and therapeutic plans should be:
- A. CT scan of entire spine; body cast for 3 months.
 - B. Lumbar spine x-rays; strict bed rest for 3 weeks.
 - C. MRI centered on L4 to S1; pain control with nerve blocks.
 - D. MRI of the lumbar spine; emergency surgical decompression of the cauda equina.
 - E. Spinal tap; surgical removal of extruded disc fragments.

136. A 39-year-old West Texas man, who always wears pointed cowboy boots, wants to know if something can be done about a very tender spot that he has between the third and fourth toes. This is most likely:
- A. Bony spur arising from the metatarsal head.
 - B. Extraarticular gout.
 - C. Ischemic neuropathy.
 - D. Morton neuroma.
 - E. Plantar fasciitis.
137. A 73-year-old man has a 5.5-cm abdominal aortic aneurysm, for which elective repair has been recommended. In the preoperative evaluation it is noted that he has jugular venous distention. Before he has his operation, he should:
- A. Be evaluated as a candidate for coronary revascularization.
 - B. Be given beta-adrenergics and intravenous fluids.
 - C. Be placed on anticoagulants.
 - D. Have a CT angio of his thoracic aorta.
 - E. Receive medical treatment for congestive heart failure.

138. A 38-year-old woman is being prepared for laparoscopic gallbladder removal under general anesthesia. When she inhales halothane and is injected with succinylcholine, however, her temperature rises to 105°F and the procedure is canceled. Cooling blankets and 100% oxygen are promptly used and emergency lab studies taken, which show metabolic acidosis and hypercalcemia. When the situation is explained to the patient's family, they recall that her grandfather died while having an operation under general anesthesia, but they were never told why that had occurred. She now needs what specific therapy, and monitoring for development of what possible condition?
- A. Bronchodilators; adult respiratory distress syndrome.
 - B. Calcium channel blockers; congestive heart failure.
 - C. Dantrolene; myoglobinuria.
 - D. Fresh frozen plasma; consumption coagulopathy.
 - E. Steroids; raised intracranial pressure.
139. On the seventh postoperative day after internal fixation of an intertrochanteric fracture, a 76-year-old man suddenly develops severe pleuritic chest pain and shortness of breath. When examined, he is found to be anxious, diaphoretic, and tachycardic. He has prominent distended veins in his neck and forehead. Blood gases show hypoxemia and hypocapnia. The next steps in management should be:
- A. Aortogram and emergency surgical repair.
 - B. EKG, troponins, and clot busters.
 - C. Intubation and respirator with hyperventilation and PEEP.
 - D. Retinal examination looking for fat droplets.
 - E. Spiral CT (CT angio) and heparinization.

140. A 72-year-old man weighing 68 kg had an abdominoperineal resection for cancer of the rectum. An indwelling Foley catheter was left in place after surgery. Although his vital signs have been stable, the nurses are concerned because his Foley catheter output for the last 2 hours has been zero. In the preceding 3 hours they had collected 56 mL, 73 mL, and 67 mL. The most likely diagnosis is:
- A. Acute renal failure.
 - B. Damage to the bladder during the operation.
 - C. Damage to the ureters during the operation.
 - D. Dehydration.
 - E. The catheter is plugged or kinked.
141. A group of Mexican nationals are smuggled into the United States in a closed metal truck in the middle of summer. When the U.S. Border Patrol gives chase, the smugglers abandon their charges in the locked truck, in the middle of the desert, with no water to drink. The group is found and rescued 5 days later. One of the victims is delivered to your hospital, awake and alert, with obvious physical findings of severe dehydration and a serum sodium concentration of 155 mEq/L. It is decided to rely on intravenous fluids to correct his problem. Which of the following is the best option?
- A. A total of 3 L normal saline infused over 12 hours.
 - B. A total of 4 L 3% saline infused over 8 hours.
 - C. A total of 5 L dextrose 5% in half-normal saline infused over 6 hours.
 - D. A total of 6 L dextrose 10% in water infused over 4 hours.
 - E. A total of 7 L dextrose 5% in water infused over 3 hours.

142. Upper GI endoscopy shows severe peptic esophagitis, Barrett esophagus, and very minimal, early dysplastic changes in a 67-year-old woman with a long history of gastroesophageal reflux disease. This is her fourth endoscopy over the past 10 years. Her best efforts to follow the medical management prescribed by a very competent gastroenterologist have failed. What should we offer her now?
- A. Heller myotomy of the lower esophageal sphincter.
 - B. Laparoscopic Nissen fundoplication.
 - C. Transhiatal total esophagectomy.
 - D. Transthoracic resection of the lower esophagus.
 - E. Vagotomy and antrectomy.
143. A 59-year-old man has had protracted vomiting and colicky abdominal pain for 3 days. His abdomen is moderately distended, and he has high-pitched, hyperactive bowel sounds. There is a 5-cm, tender, discolored mass in his left groin. He says that for many years he has had a bulge there that is noticeable when he is walking around and gets bigger when he coughs or strains; it would disappear whenever he was lying down and “pushed it in.” But now he cannot push in this mass, and it has been out since he began vomiting. He has fever and leukocytosis. Management at this time requires:
- A. A precise diagnosis made by sonogram of the mass.
 - B. A trial of nasogastric suction and IV fluids for a few days.
 - C. Insertion of a long rectal tube via sigmoidoscope.
 - D. Manual reduction of the hernia and a period of observation.
 - E. Urgent surgical intervention.

144. A 23-year-old woman describes exquisite pain with defecation and blood streaks on the outside of the stools. Because of the pain, she avoids having bowel movements and develops constipation, which complicates her problem. She initially refuses physical examination for fear of precipitating the pain. You have an idea of what her problem might be, and thus a reasonable plan of management would be:
- A. Anoscopy regardless of the pain, and quick rubber ligation of hemorrhoids.
 - B. Examination under anesthesia, followed by incision and drainage.
 - C. Examination under anesthesia, followed by diltiazem ointment.
 - D. A follow-up consultation when the patient is feeling better.
 - E. Strong laxatives prescribed on the basis of history alone.
145. A 7-year-old boy passed a large bloody bowel movement 2 days ago. He has not bled again since then. Physical examination is noncontributory, and he has a normal hemoglobin level. The diagnostic modality most appropriate to diagnose the source of the bleeding would be:
- A. Arteriogram.
 - B. Colonoscopy.
 - C. Radioactively labeled technetium scan.
 - D. Radioactively tagged red cell study.
 - E. Upper GI endoscopy.

146. A 79-year-old man with atrial fibrillation develops an acute abdomen. When seen 3 days after the onset of the abdominal pain, he has a silent abdomen with diffuse tenderness and mild rebound. There is a trace of blood in the rectal exam. He looks quite sick, with acidosis and signs of sepsis. The most likely diagnosis is:
- A. Acute pancreatitis.
 - B. Mesenteric ischemia.
 - C. Midgut volvulus.
 - D. Perforated viscus.
 - E. Primary bacterial peritonitis.
147. A 58-year-old woman first noticed scleral icterus 5 weeks ago. Jaundice has been steadily progressing, and now her entire body looks yellow and she has mild itching all over. She also reports vague, constant upper abdominal and back pain and a 10-pound weight loss. The lab reports a total bilirubin of 29, most of which is conjugated (direct) bilirubin. Transaminases are minimally elevated, and alkaline phosphatase is about 5 times the upper limit of normal. An ultrasound of her right upper abdomen shows a thin-walled, massively dilated gallbladder without stones. The next diagnostic procedure should be:
- A. CT scan of the upper abdomen.
 - B. Endoscopic retrograde cholangiopancreatogram (ERCP).
 - C. Magnetic resonance cholangiopancreatogram (MRCP).
 - D. Percutaneous transhepatic cholangiogram.
 - E. Sonographically guided endoscopic biopsies.

148. Two weeks after his discharge from the hospital, a 59-year-old, alcoholic man returns, reporting fever and chills for the last 3 days. He was last hospitalized for acute hemorrhagic pancreatitis, and while in the ICU he had pleural effusions and respiratory failure, but he recovered from all of those problems. The only additional finding now is leukocytosis. He has probably developed:
- A. Chronic pancreatitis.
 - B. Pancreatic abscess.
 - C. Pancreatic pseudocyst.
 - D. Pelvic abscess.
 - E. Subphrenic abscess.
149. A 27-year-old immigrant from El Salvador has a 14- by 12- by 9-cm mass in her left breast. It has been present for 7 years and has slowly grown to its present size. The mass is firm, rubbery, and completely movable, and it is not attached to overlying skin or the chest wall. There are no palpable axillary nodes. The most likely diagnosis is:
- A. Breast cancer.
 - B. Chronic cystic mastitis.
 - C. Cystosarcoma phyllodes.
 - D. Intraductal papilloma.
 - E. Mammary dysplasia.

150. A 54-year-old woman seeks help because she noticed a mass in her left breast. She was actually not in the habit of doing breast self-exams, but she was accidentally hit with a tennis racket, and that brought her attention to the area. She has a 3.5-cm, hard, deep, freely movable mass and some superficial bruising. The next step in management should be:
- A. Fine needle aspiration (FNA).
 - B. Mammogram.
 - C. Radiologically guided core biopsies.
 - D. Reassurance that the trauma is responsible for the mass.
 - E. Surgical evacuation of the hematoma.
151. A young man who crashed his Ferrari 2 weeks ago is dying in the intensive care unit with adult respiratory distress syndrome (ARDS) that has failed to respond to conventional therapy. His very wealthy parents are anxious to try whatever new “miracle” procedure might offer hope of survival. He might be a good candidate for:
- A. Extracorporeal membrane oxygenation (ECMO).
 - B. Hyperbaric chamber dives at 3 atmospheres of pressure.
 - C. Porcine lung graft, as a bridge to bilateral lung allografts.
 - D. Repeated infusions of free hemoglobin.
 - E. Repeated treatments with standard heart-lung bypass machines.

152. When a premature baby is first fed, he develops signs of feeding intolerance, with abdominal distention and a rapidly dropping platelet count. All feedings are stopped, and the baby is placed on broad-spectrum antibiotics, IV fluids, and IV nutrition. The next day he develops abdominal wall erythema and air in the portal vein. Therapy should now include:
- A. Cannulation of the portal vein for decompression.
 - B. Debridement of the abdominal wall.
 - C. Intravenous nutrients specifically designed for liver failure.
 - D. Parenteral nutrients delivered into the portal vein.
 - E. Surgical intervention.
153. A 22-year-old woman comes to the ER with an extremely severe headache that she insists is different from any headache she has ever had before. On direct questioning, she explains that it had sudden onset, denies any history of trauma, and offers no potential explanation for her problem. She still has the headache as she is being examined, but her neurological examination is entirely normal. The next step in management should be:
- A. CT scan of the head.
 - B. Psychiatric consultation.
 - C. Reassurance and analgesics.
 - D. Skull x-rays.
 - E. Spinal tap.

154. A 24-year-old woman is surprised to find that she is secreting milk from both breasts, even though she knows perfectly well that she is not pregnant. She suspects some kind of gynecological or endocrine problem, because her menses have been very irregular and now she has amenorrhea. Her workup finds normal TSH, negative pregnancy test, elevated prolactin levels, and the presence of a small pituitary tumor shown on MRI. She is absolutely terrified of the idea of any kind of surgery on her head. She could be offered:
- A. Bromocriptine or a similar drug.
 - B. Indomethacin or a similar drug.
 - C. Psychiatric counseling, because surgery is her only option.
 - D. Radiation therapy.
 - E. Watchful waiting, expecting spontaneous involution.
155. A man has been referred to a multidisciplinary clinic because of depression. He explains that he has reason for the way he feels: He was recently fired from his job because of inappropriate behavior; he has been having headaches every morning, and they are getting worse; and lately he has been vomiting for no reason. "I just open my mouth, and the stuff hits the wall," he says. He hardly sees out of one eye, and all foods "taste the same." On neurologic exam he is found to have papilledema on one side, atrophy of the optic nerve on the other, and anosmia. He probably has:
- A. Brain tumor at the base of the frontal lobe.
 - B. Brain tumor over the parietal lobe.
 - C. Multiple sclerosis.
 - D. Senile dementia.
 - E. Severe psychiatric problems.

156. A 58-year-old homeless man has been having intermittent hematuria for a year and a half but has not looked for help because “they treat me like trash at the emergency room.” Finally he is forced to go when he develops flank pain. Workup shows a flank mass, hypercalcemia, erythrocytosis, and elevated liver enzymes. CT scan shows a heterogenic tumor that has grown into the lumen of the vena cava. This is the full-blown picture of:
- A. Hepatoblastoma.
 - B. Prostatic cancer.
 - C. Renal cell carcinoma.
 - D. Retroperitoneal sarcoma.
 - E. Transitional cell carcinoma.
157. A 33-year-old man carelessly removes the radiator cap of his car to find out why the motor is overheating. His face is severely burned with very hot coolant fluid and steam, but fortunately he avoids inhaling the latter. His eyes escaped injury, but he has burns that are very close to them. After everything is cleaned in the operating room, those burns near the eyes should be covered with:
- A. Mafenide acetate.
 - B. Petroleum jelly.
 - C. Silver sulfadiazine.
 - D. Triple antibiotic ointment.
 - E. Wet-to-dry dressings.

158. A middle-aged man is brought into the ER with extremely severe abdominal pain of sudden onset. He is thrashing around, trying to get off the stretcher, while his wife attempts to restrain him. This patient probably has:
- A. An inflammatory process in the abdomen.
 - B. An ischemic process affecting his bowel.
 - C. A perforated hollow viscus.
 - D. A stone impacted in his ureter.
 - E. Primary bacterial peritonitis.
159. In the course of a mugging, a 27-year-old man is repeatedly kicked in the abdomen. When he is examined in the ER shortly thereafter, he has a blood pressure of 85 over 55 and a pulse rate of 110, with a central venous pressure of 1. Two liters of Ringer lactate are infused over 20 minutes via two 16-gauge catheters, one in each arm. His blood pressure promptly responds, and by the time packed red cells arrive from the blood bank, he is hemodynamically stable. He has no signs of peritoneal irritation on physical exam. The next step in management should be:
- A. CT scan of the abdomen.
 - B. Diagnostic peritoneal lavage.
 - C. Exploratory laparotomy.
 - D. Focused abdominal sonogram for trauma (FAST).
 - E. Serial x-rays of the abdomen.

160. A scrawny, pitifully small child is brought in with scalding, mostly second-degree burns of both buttocks. The stepfather indicates that the boy is 3 years old, although he looks no bigger than one and a half. He tells the staff that the child accidentally pulled a pot of boiling water over himself while playing in the kitchen. The most important element in the management of this case will be:
- A. Careful calculation of the fluid needs for the next 24 hours.
 - B. Consultation with a nutritionist to improve the child's diet.
 - C. Implementation of early excision and grafting.
 - D. Referral to the proper authorities for child abuse.
 - E. The choice of topical agents to apply to the burned areas.
161. Ten days after a patient receives a cadaveric renal transplant, the new kidney's function begins to deteriorate. A percutaneous biopsy report of the graft reads, "Signs of acute rejection." Management should be:
- A. Antilymphocytic medication (OKT3).
 - B. Antithymocyte serum and steroid bolus.
 - C. Doppler studies of renal artery and vein.
 - D. Gradually increased doses of the baseline immunosuppressants.
 - E. Verification that the patient is taking medicines on time.

162. A 72-year-old man has been having irritative voiding symptoms and occasional episodes of hematuria. He worked for many years at a chemical plant, where he suspects he was exposed to carcinogens, and he has seen TV ads from lawyers who promise him a financial bonanza if he sues his former employer. However, except for the fact that he has been smoking 3 packs a day since he was a teenager, an extensive investigation of his occupational environment and his personal habits comes up negative. Repeated urinary cultures and a CT scan of his abdomen have been noncontributory. The next step in management should be:
- A. A trial of therapy with ciprofloxacin.
 - B. Cystoscopy.
 - C. Intravenous pyelogram.
 - D. Intravesical BCG.
 - E. Renal biopsies.
163. A 59-year-old man has a ureteral stone impacted just above the point where the ureter empties into the bladder. CT scan shows the stone to measure 3 mm. Although he is having colicky pain, it is relatively mild and he is not nauseous or vomiting. A decision is made to give him plenty of fluids and pain medication, and let him pass the stone. At 3:00 a.m., his doctor gets a call informing him that the patient has developed chills, a fever spike to 105°F, and flank pain. The doctor orders IV antibiotics over the phone. What else should he do?
- A. See the patient in the morning and reevaluate the situation.
 - B. Arrange for extracorporeal shock wave lithotripsy to be done tomorrow.
 - C. Go to the hospital right now and place a suprapubic tube in the bladder.
 - D. Go to the hospital right now and place a nephrostomy tube.
 - E. Notify his team that they need to extract that stone by open surgery tomorrow.

164. A 66-year-old obese woman comes in because of a chronic ulcer that she says “does not hurt, but it does not heal either.” She has been applying antibiotic creams to no avail. Physical examination shows a 3.5-cm ulcer just above a medial malleolus, with a granulating bed, surrounded by chronically edematous, indurated, hyperpigmented skin. Her obesity precludes any reliable physical examination of her leg veins or her peripheral pulses. An initial plan of treatment should be based on:
- A. Application of ice, bed rest, and elevation.
 - B. Biopsy of the ulcer edge followed by resection and radiation treatment.
 - C. Doppler studies looking for arterial pressure gradient, and angioplasty or bypass.
 - D. Duplex scan of the patient's veins and use of support stockings measured to fit her.
 - E. Measurement of HbA1c and strict control of diabetes.
165. A 17-year-old boy has been having right lower quadrant abdominal pain for 2 days. He says the pain began at that location and has been gradually getting worse. On physical exam he has tenderness to deep palpation and mild rebound on both the right lower quadrant and the left lower quadrant. His temperature is 38°C, and his WBC is 8,500. He adds that he is terribly hungry, but his family is afraid to feed him. The next step in management should be:
- A. Barium enema.
 - B. CT scan of the abdomen.
 - C. Emergency appendectomy.
 - D. Lower GI endoscopy.
 - E. Trial of antibiotic therapy.

166. A 23-year-old woman has a tubal ligation done under general anesthesia by a vaginal approach. Something goes wrong in the postoperative period, and within a few hours she is in coma. Her records of medications and fluid administrations have been lost, and all we know for sure is that at the time of anesthetic induction her serum sodium concentration was 142 mEq/L, and now that she is in coma it is 118 mEq/L. Most likely she has been the victim of:
- A. Air embolism.
 - B. Intracranial bleeding.
 - C. Renal loss of sodium.
 - D. Water loss.
 - E. Water retention.
167. A 72-year-old man with senile dementia falls at his nursing home and breaks his hip. He has an intertrochanteric fracture, which is treated by open reduction and internal fixation. He is placed on anticoagulants post-op. Five days after the procedure, he develops a massively distended colon. His abdomen is distended and tense, but not tender. His x-rays show the colon to be full of air, down to about the level of the sigmoid. After correction of his fluids and electrolytes, he needs:
- A. Colonoscopy and long rectal tube.
 - B. Decompression by means of nasogastric suction.
 - C. Early ambulation to restore normal bowel motility.
 - D. Intravenous neostigmine.
 - E. Reversal of anticoagulation to allow urgent laparotomy.

168. A 17-year-old boy who is an insulin-dependent diabetic gets lost in the woods during a summer camp outing. He is found 3 days later in coma, with physical signs of dehydration and hyperventilation. The following laboratory report becomes available shortly after his workup begins in the emergency room of the nearest hospital: blood pH of 7.1, PCO_2 of 35, serum bicarbonate of 15, serum sodium 142, serum chloride 105. Those numbers tell you that he has:
- A. Laboratory evidence of loss of serum buffers.
 - B. Metabolic acidosis with an anion gap.
 - C. Metabolic acidosis with complete respiratory compensation.
 - D. Primary metabolic alkalosis.
 - E. Respiratory acidosis.
169. A 43-year-old man has a bloody bowel movement. He promptly reports to the ER, and while waiting to be seen he has another bloody evacuation. He reports the color of the blood in both of those as “dark red.” A good look at his mouth and nose reveals no blood or lesions there, and the rest of a quick physical exam is equally noncontributory. A nasogastric tube is then inserted, and suction returns bloody gastric contents. The next step in the diagnostic workup should be:
- A. Arteriogram.
 - B. Tagged red cell study.
 - C. Technetium scan.
 - D. Upper GI endoscopy.
 - E. Upper GI series with barium.

170. A 67-year-old man comes to the office, with his wife, complaining of his inability to sleep. Pain in both calves keeps him awake. He finds some relief by dangling his feet, at which time his wife says his feet turn from very pale to deep purple. Asked about similar pain when he walks, they both point out that he knows he cannot walk more than a few yards without getting the same kind of pain. Physical exam shows shiny atrophic skin without hairs and no palpable pulses in his feet. The next step in the workup should be:
- A. Arteriogram.
 - B. CT angio with spiral scan technology.
 - C. Doppler studies, looking for a pressure gradient.
 - D. Lipid profile.
 - E. MRI angio.
171. A 39-year-old man with ascites, secondary to cirrhosis, develops diffuse abdominal pain. The problem began a couple of days ago, but the pain did not become significant until the third day. His physical examination is equivocal, with mild tenderness and perhaps a bit of rebound. He has mild fever and a minimal elevation in his WBC count. A sample of ascitic fluid sent for culture is reported to be growing a single organism. The next step in management should be:
- A. Antibiotics, guided by culture and sensitivities.
 - B. Exploratory laparotomy.
 - C. Ultrasound of the right upper quadrant.
 - D. Serial CT scans of the abdomen.
 - E. Vigorous use of diuretics until the ascites disappears.

172. A 34-year-old woman develops abdominal pain and shortly thereafter faints. When seen in the ER she has regained consciousness but is very weak, with profuse perspiration and a blood pressure of 85 over 50. Her hemoglobin is 8, and her abdomen is distended. There is no history of trauma. Thinking about the possibility of an ectopic pregnancy, she is asked about her GYN history. She is quite sure she is not pregnant, because she is on birth control pills, which she has faithfully taken since she was a teenager. This is a history suggestive of:
- A. Hepatic adenoma.
 - B. Metastatic cancer to the liver.
 - C. Primary hepatocellular carcinoma.
 - D. Ruptured abdominal aortic aneurysm.
 - E. Ruptured aneurysm of the hepatic artery.
173. A 79-year-old man reports fatigue and localized pain at specific places on several bones. X-rays show multiple, punched-out lytic lesions in the bones, and a complete blood count reveals that he is anemic. The next step in his diagnostic workup should be:
- A. Bence-Jones protein in urine, and serum immunoelectrophoresis.
 - B. Bone marrow biopsies.
 - C. MRI of the affected bones.
 - D. Prostate-specific antigen (PSA).
 - E. Radioisotope scan of the spleen.

174. A 17-year-old boy has a chest x-ray done because he fell and hurt his ribs. The radiologist reports that there are no rib fractures, but that the film shows “scalloping of the lower edge of the ribs.” A subsequent physical exam shows significant hypertension, repeatedly measured on both arms. He has no palpable peripheral pulses in his legs. The next diagnostic study should be:
- A. Aldosterone and renin levels.
 - B. Doppler studies of his renal vessels.
 - C. Serum immunoelectrophoresis.
 - D. Spiral CT scan enhanced with intravenous dye (CT angio).
 - E. Twenty-four hour urinary collection for metanephrine levels.
175. A 3-year-old child is brought in by concerned parents because he has chronic constipation. He has no fecal soiling, and his abdomen is distended. When a rectal exam is done, there is explosive expulsion of stool and flatus, with relief of the abdominal distention. A barium enema shows a normal-looking distal colon, and a rather dilated proximal colon. The next diagnostic step should be:
- A. Colonoscopy.
 - B. Comprehensive psychiatric evaluation.
 - C. Full thickness biopsy of the rectal mucosa.
 - D. Radioisotope scan of the lower abdomen.
 - E. Sweat test.

176. A 12-year-old girl has a physical exam done prior to her acceptance at a summer camp. There is a faint heart murmur that triggers her referral to a pediatric cardiologist. The specialist instantly recognizes a faint pulmonary flow systolic murmur and a fixed split second heart sound. Upon direct questioning the family reports that indeed the girl has frequent colds and respiratory infections. You expect that an echocardiogram should show:
- A. Atrial septal defect.
 - B. Classic ventricular septal defect up in the membranous portion.
 - C. Diminished pulmonary vascular markings.
 - D. Patent ductus arteriosus.
 - E. Small ventricular septal defect near the apex.
177. Because of chronic cough and what might have been an episode of hemoptysis, a 45-year-old man has a chest x-ray taken. The radiologist reports a 3-cm coin lesion in the upper lobe of the right lung. The man has never smoked but has been exposed to secondhand smoke from his wife's long smoking habit. At one time he worked in a coal mine, and he has lived in an area where chronic fungal infections are common. The next step in management should be:
- A. Bronchoscopy and multiple biopsies.
 - B. PET scan of the mediastinal nodes.
 - C. Pulmonary function studies.
 - D. Transthoracic needle biopsy.
 - E. Try to locate an older chest x-ray to compare with this one.

178. A pediatric neurosurgeon takes a peek into his office waiting room and sees a child on hands and knees, holding his head lower than his torso. The child most likely has:
- A. Brain abscess.
 - B. Chronic infection of the inner ear.
 - C. Degenerative disease of the central nervous system.
 - D. Ependymoma.
 - E. Glioblastoma multiforme.
179. As the runners of a marathon approach the finish line, several bombs planted by terrorists, explode at about knee level behind the spectators, creating dozens of traumatic lower extremity amputations. First responders should control bleeding by what method, and after initial hospital resuscitation, shock should be treated with what therapy?
- A. Direct pressure; whole blood.
 - B. Direct pressure; packed red cells (RBCs).
 - C. Tourniquets; whole fresh blood.
 - D. Tourniquets; packed RBCs and fresh frozen plasma (FFP).
 - E. Tourniquets; packed RBCs, FFP, and platelets in 1-1-1 ratio.

180. A patient with a history of episodes of severe paroxysmal hypertension is found on laboratory studies to be producing large amounts of epinephrine. Subsequent diagnostic imaging is expected to demonstrate that the source of that abnormality is located in the:
- A. Adrenal cortex.
 - B. Adrenal medulla.
 - C. Anterior pituitary gland.
 - D. Paraspinal chromaffin tissue.
 - E. Posterior pituitary gland.

Answer Keys

Question number	Correct answer
1.	(A)
2.	(A)
3.	(E)
4.	(E)
5.	(B)
6.	(D)
7.	(C)
8.	(C)
9.	(D)
10.	(C)
11.	(D)
12.	(E)
13.	(E)
14.	(C)
15.	(A)
16.	(D)
17.	(B)
18.	(A)
19.	(B)

Question number	Correct answer
20.	(E)
21.	(D)
22.	(B)
23.	(E)
24.	(C)
25.	(D)
26.	(B)
27.	(D)
28.	(E)
29.	(C)
30.	(E)
31.	(B)
32.	(C)
33.	(A)
34.	(B)
35.	(C)
36.	(B)
37.	(A)
38.	(B)

Question number	Correct answer
39.	(B)
40.	(E)
41.	(E)
42.	(C)
43.	(C)
44.	(E)
45.	(B)
46.	(A)
47.	(A)
48.	(E)
49.	(E)
50.	(A)
51.	(C)
52.	(C)
53.	(A)
54.	(B)
55.	(D)
56.	(A)
57.	(B)
58.	(C)
59.	(B)
60.	(B)

Question number	Correct answer
61.	(A)
62.	(C)
63.	(C)
64.	(E)
65.	(D)
66.	(E)
67.	(A)
68.	(B)
69.	(D)
70.	(A)
71.	(E)
72.	(D)
73.	(C)
74.	(C)
75.	(B)
76.	(B)
77.	(C)
78.	(D)
79.	(C)
80.	(A)
81.	(A)
82.	(A)

Question number	Correct answer
83.	(D)
84.	(C)
85.	(C)
86.	(E)
87.	(D)
88.	(A)
89.	(E)
90.	(A)
91.	(D)
92.	(C)
93.	(E)
94.	(D)
95.	(E)
96.	(D)
97.	(C)
98.	(C)
99.	(D)
100.	(B)
101.	(C)
102.	(D)
103.	(D)
104.	(C)

Question number	Correct answer
105.	(C)
106.	(E)
107.	(B)
108.	(D)
109.	(C)
110.	(D)
111.	(D)
112.	(B)
113.	(A)
114.	(D)
115.	(A)
116.	(D)
117.	(C)
118.	(C)
119.	(B)
120.	(B)
121.	(B)
122.	(C)
123.	(C)
124.	(E)
125.	(C)
126.	(E)

Question number	Correct answer
127.	(D)
128.	(C)
129.	(D)
130.	(A)
131.	(D)
132.	(A)
133.	(C)
134.	(B)
135.	(C)
136.	(D)
137.	(E)
138.	(C)
139.	(E)
140.	(E)
141.	(C)
142.	(B)
143.	(E)
144.	(C)
145.	(C)
146.	(B)
147.	(A)
148.	(B)

Question number	Correct answer
149.	(C)
150.	(C)
151.	(A)
152.	(E)
153.	(A)
154.	(A)
155.	(A)
156.	(C)
157.	(D)
158.	(D)
159.	(A)
160.	(D)
161.	(B)
162.	(B)
163.	(D)
164.	(D)
165.	(B)
166.	(E)
167.	(A)
168.	(B)
169.	(D)
170.	(C)

Question number	Correct answer
171.	(A)
172.	(A)
173.	(A)
174.	(D)
175.	(C)
176.	(A)
177.	(E)
178.	(D)
179.	(E)
180.	(B)