1. **In “catabolic” surgical patients, which of the following changes in body composition do not occur?**

**A. Lean body mass increases.**

**B. Total body water increases.**

**C. Adipose tissue decreases.**

**D. Body weight decreases.**

**E. Proteolysis and increased excretion of body nitrogen**

**Answer: A**

1. **The characteristic changes that follow a major operation or moderate to severe injury do not include the following:**

**A. Hypermetabolism.**

**B. Fever.**

**C. Tachypnea.**

**D. Hyperphagia.**

**E. Negative nitrogen balance.**

**Answer: D**

1. **All of the following statements about hemorrhagic shock are true except:**

**A. Following hemorrhagic shock, there is an initial interstitial fluid volume contraction.**

**B. Dopamine, or a similar inotropic agent, should not be given immediately for resuscitation from hemorrhagic shock, to increase cardiac output and improve oxygen delivery to hypoperfused tissues.**

**C. The use of colloid solutions or hypertonic saline solutions is contraindicated for treatment of hemorrhagic shock.**

**D. In hemorrhagic shock, a narrowed pulse pressure is commonly seen before a fall in systolic blood pressure.**

**E. Systolic hypotension may not be evident in hemorrhagic shock until at least 30% or more of blood volume is exsanguinated**

**Answer: C**

1. **Which of the following statements about head injury and concomitant hyponatremia are true?**

**A. There are no primary alterations in cardiovascular signs.**

**B. Signs of increased intracranial pressure may be masked by the hyponatremia.**

**C. Oliguric renal failure is an unlikely complication.**

**D. Rapid correction of the hyponatremia may prevent central pontine injury.**

**E. This patient is best treated by restriction of water intake.**

**Answer: A**

1. **Which of the following statements are true of a patient with hyperglycemia and hyponatremia?**

**A. The sodium concentration must be corrected by 5 mEq. per 100 mg. per 100 ml. elevation in blood glucose.**

**B. With normal renal function, this patient is likely to be volume overloaded.**

**C. Proper fluid therapy would be unlikely to include potassium administration.**

**D. Insulin administration will increase the potassium content of cells.**

**E. Early in treatment adequate urine output is a reliable measure of adequate volume resuscitation.**

**Answer: D**

1. **Which of the following is true of loss of gastrointestinal secretions?**

**A. Gastric losses are best replaced with a balanced salt solution.**

**B. Potassium supplementation is unnecessary in replacement of gastric secretions.**

**C. Bicarbonate wasting is an unusual complication of a high-volume pancreatic fistula.**

**D. Balanced salt solution is a reasonable replacement fluid for a small bowel fistula.**

**E. A patient with persistent vomiting usually requires hypochloremic replacement fluids.**

**Answer: D**

1. **Which of the following is/are not associated with increased likelihood of infection after major elective surgery?**

**A. Age over 70 years.**

**B. Chronic malnutrition.**

**C. Controlled diabetes mellitus.**

**D. Long-term steroid use.**

**E. Infection at a remote body site.**

**Answer: C**

1. **In patients receiving massive blood transfusion for acute blood loss, which of the following is/are correct?**

**A. Packed red blood cells and crystalloid solution should be infused to restore oxygen-carrying capacity and intravascular volume.**

**B. Two units of FFP should be given with every 5 units of packed red blood cells in most cases.**

**C. A “six pack” of platelets should be administered with every 10 units of packed red blood cells in most cases.**

**D. One to two ampules of sodium bicarbonate should be administered with every 5 units of packed red blood cells to avoid acidosis.**

**E. One ampule of calcium chloride should be administered with every 5 units of packed red blood cells to avoid hypocalcemia.**

**Answer: A**

1. **The evaluation of a patient scheduled for elective surgery should always include the following as tests of hemostasis and coagulation:**

**A. History and physical examination.**

**B. Complete blood count (CBC), including platelet count.**

**C. Prothrombin time (PT) and activated partial thromboplastin time (APTT).**

**D. Studies of platelet aggregation with adenosine diphosphate (ADP) and epinephrine.**

**E. ECG**

**Answer: A**

1. **Which of the following statements about the presence of gallstones in diabetes patients is/are correct?**

**A. Gallstones occur with the same frequency in diabetes patients as in the healthy population.**

**B. The presence of gallstones, regardless of the presence of symptoms, is an indication for cholecystectomy in a diabetes patient.**

**C. Diabetes patients with gallstones and chronic biliary pain should be managed nonoperatively with chemical dissolution and/or lithotripsy because of severe complicating medical conditions and a high operative risk.**

**D. The presence of diabetes and gallstones places the patient at high risk for pancreatic cancer.**

**E. Diabetes patients with symptomatic gallstones should have prompt elective cholecystectomy, to avoid the complications of acute cholecystitis and gallbladder necrosis.**

**Answer: E**

1. **Which of the following factors have been demonstrated to promote wound healing in normal individuals**
2. **Vitamin A supplementation**
3. **Vitamin C supplementation**
4. **Vitamin E application to the wound**
5. **Zinc supplementation**
6. **None of the above**

**Answer: e**

**12. 22-year-old man sustains a single stab wound to the left chest and presents to the emergency room with hypotension. Which of the following statement(s) is/are true concerning his diagnosis and management?**

1. **The patient likely is suffering from hypovolemic shock and should respond quickly to fluid resuscitation**
2. **Beck’s triad will likely be an obvious indication of compressive cardiogenic shock due to pericardial tamponade**
3. **Echocardiography is the most sensitive noninvasive approach for diagnosis of pericardial tamponade**
4. **The placement of bilateral chest tubes will likely resolve the problem**
5. **Pulses paradoxus may be noted (this involves a increase rather than the normal decrease of systolic blood pressure with inspiration; values 10mmHg are significant)**

**Answer: c**

**13.Narcotics are commonly used in the administration of general anesthesia. Which of the following statement(s) is/are true concerning this class of agents.**

* 1. **Narcotics have both profound analgesic and amnestic properties**
  2. **Narcotics can cause hypotension by direct myocardial depressive effects**
  3. **Naloxone should be used routinely for the reversal of narcotic analgesia**
  4. **Acutely injured hypovolemic patients are at significant risk for decreased blood pressure with the use of narcotic analgesics**
  5. **Propofol is a new intravenous short-acting narcotic used frequently in the outpatient setting**

**Answer: d**

**14. A 28-year-old male was injured in a motorcycle accident in which he was not wearing a helmet. On admission to the emergency room he was in severe respiratory distress and hypotensive (blood pressure 80/40 mm. Hg), and appeared cyanotic. He was bleeding profusely from the nose and had an obviously open femur fracture with exposed bone. Breath sounds were decreased on the right side of the chest. The initial management priority should be:**

**A. Control of hemorrhage with anterior and posterior nasal packing.**

**B. Tube thoracostomy in the right hemithorax.**

**C. Endotracheal intubation with in-line cervical traction.**

**D. Obtain intravenous access and begin emergency type O blood transfusions.**

**E. Obtain cross-table cervical spine film and chest film.**

**Answer: C**

**15. Which of the following statements or descriptions typically characterizes the syndrome of overwhelming postsplenectomy sepsis?**

**A. A syndrome of fulminant gram-negative bacteremia and septicemia in asplenic individuals, characterized by the presence of as many as 10 6 bacterial organisms per cu. mm. circulating in the bloodstream.**

**B. A syndrome caused primarily by impaired host ability to mount an effective humoral (immunoglobulin) response to infection.**

**C. A syndrome that occurs in 5% to 7% of patients following traumatic splenectomy.**

**D. A syndrome of rapidly appearing septic shock unresponsive to antibiotic therapy, with an average mortality of 50%.**

**E. The syndrome may be prevented by preserving as little as 15% of splenic mass in adult trauma victims.**

**Answer: D**

1. **A middle-aged man is undergoing laparotomy for blunt abdominal trauma. The spleen and liver are both found to be injured. Which of the following statement(s) is/are true concerning the management of these injuries?**
   1. **If the patient has multiple other abdominal injuries and hypotension, splenic salvage should not be attempted**
   2. **The incidence of life-threatening sepsis in the adult following splenectomy is no greater than in the normal population**
   3. **All liver injuries regardless of their depth require external drainage**
   4. **The Pringle maneuver should control all bleeding from hepatic parenchymal vessels**
   5. **If concern for a biliary fistula from the liver parenchyma exists, a T-tube should be placed even if the common bile duct is otherwise normal**

**Answer: a**

1. **The management of a patient with frostbite includes:**
   1. **Gradual spontaneous warming**
   2. **Emersion of the tissue in a large water bath with a temperature of 40–42°C**
   3. **Immediate initiation of prophylactic antibiotics**
   4. **Systemic anticoagulation with heparin**
   5. **Immediate debridement of necrotic tissue**

**Answer: b**

1. **The intravenous fluid that a 60 kg., 30-year-old woman with an 80% burn should be given in the first 24 hours following burn injury is:**

**A. 19.2 liters of 5% glucose in lactated Ringer's.**

**B. 14.4 liters of lactated Ringer's.**

**C. 9.6 liters of hypertonic salt solution (sodium concentration 200 mEq. per liter).**

**D. 7.2 liters of 5% albumin solution.**

**E. 5.5 liters of the pentafraction component of hydroxyethyl starch.**

**Answer: B**

**16.Which of the following statement(s) is/are true concerning the initial fluid resuscitation of a burn patient?**

* 1. **Rigid adherence to the Modified Brooke formula is advised**
  2. **In general, children require less fluid than that predicted by standard formulae**
  3. **Patients with inhalation injuries require less fluid than predicted by standard formulae**
  4. **Dextrose should not be given as the primary resuscitative fluid for any age group**
  5. **Most resuscitative formulae withhold colloid solutions until 24 hours post-injury**

**Answer: e**

1. **The most common hernia in females is:**

**A. Femoral hernia.**

**B. Direct inguinal hernia.**

**C. Indirect inguinal hernia.**

**D. Obturator hernia.**

**E. Umbilical hernia.**

**Answer: C**

1. **Which of the following statements regarding unusual hernias is incorrect?**

**A. An obturator hernia may produce nerve compression diagnosed by a positive Howship-Romberg sign.**

**B. Grynfeltt's hernia appears through the superior lumbar triangle, whereas Petit's hernia occurs through the inferior lumbar triangle.**

**C. Sciatic hernias usually present with a painful groin mass below the inguinal ligament.**

**D. Littre's hernia is defined by a Meckel's diverticulum presenting as the sole component of the hernia sac.**

**E. Richter's hernia involves the antimesenteric surface of the intestine within the hernia sac and may present with partial intestinal obstruction.**

**Answer: C**

1. **Staples may safely be placed during laparoscopic hernia repair in each of the following structures except:**

**A. Cooper's ligament.**

**B. Tissues superior to the lateral iliopubic tract.**

**C. The transversus abdominis aponeurotic arch.**

**D. Tissues inferior to the lateral iliopubic tract.**

**E. The iliopubic tract at its insertion onto Cooper's ligament.**

**Answer: D**

1. **Which of the following statements about the causes of inguinal hernia is correct?**

**A. Excessive hydroxyproline has been demonstrated in the aponeuroses of hernia patients.**

**B. Obliteration of the processus vaginalis is a contributing factor for the development of an indirect inguinal hernia.**

**C. Physical activity and athletics have been shown to have a protective effect toward the development of inguinal hernias.**

**D. Elevated levels of circulating serum elastalytic activity have been demonstrated in patients with direct herniation who smoke.**

**E. The majority of inguinal hernias are acquired.**

**Answer: D**

1. **The following statements about the repair of inguinal hernias are true except:**

**A. The conjoined tendon is sutured to Cooper's ligament in the Bassini hernia repair.**

**B. The McVay repair is a suitable option for the repair of femoral hernias.**

**C. The Shouldice repair involves a multilayer, imbricated repair of the floor of the inguinal canal.**

**D. The Lichtenstein repair is accomplished by prosthetic mesh repair of the inguinal canal floor in a tension-free manner.**

**E. The laparoscopic transabdominal preperitoneal (TAPP) and totally extraperitoneal approach (TEPA) repairs are based on the preperitoneal repairs of Cheattle, Henry, Nyhus, and Stoppa.**

**Answer: A**

**21.A 26-year old woman in her first trimester of pregnancy presents with a 2-day history of right lower quadrant pain and fever. Physical examination reveals a tender, palpable, right lower quadrant mass. There is no evidence of peritonitis or systemic sepsis. Laboratory evaluation is remarkable for mild leukocytosis, and abdominal ultrasound demonstrates an inflammatory mass but no evidence of abscess. As the surgeon on call, your recommendation would be:**

1. **Intravenous hydration, antibiotic prophylasis, and urgent appendectomy**
2. **Intravenous hydration, antibiotics, bowel rest, and interval appendectomy in 4 to 6 weeks**
3. **Intravenous hydration, antibiotics, and appendectomy if no improvement in 12 to 24 hours**
4. **Intravenous hydration, antibiotics, and interval appendectomy when fever has subsided, leukocyte count has returned to normal, and the patient is pain free**
5. **Emergent obstetrical consultation for evaluation and treatment of possible ectopic pregnancy**

**Answer: a**

**22.True statements regarding appendiceal neoplasms include which of the following?**

1. **Carcinoid tumors of the appendix less than 1.5 cm are adequately treated by simple appendectomy**
2. **Appendiceal carcinoma is associated with secondary tumors of the GI tract in up to 60% of patients**
3. **Survival following right colectomy for a Dukes’ stage C appendiceal carcinoma is markedly better than that for a similarly staged colon cancer at 5 years**
4. **Mucinous cystadenocarcinoma of the appendix is adequately treated by simple appendectomy, even in patients with rupture and mucinous ascites**
5. **Up to 50% of patients with appendiceal carcinoma have metastatic disease, with the liver as the most common site of spread**

**Answer: a**

**23. As the functional anatomy of the spleen is divided into red pulp, white pulp, and marginal zone, what function is incorporated into the anatomy of the cortical zone that relates to infection control?**

**A. Filtration of red cells, encapsulated bacteria, and other foreign material.**

**B. Red pulp for formation of red cells.**

**C. White pulp for its role in formation of granulocytes.**

**D. Gray areas, so formed because of the production of platelets.**

**E. Fibrous trabeculae.**

**Answer: A**

**24. During the evolution of the understanding of hematologic diseases, the indications for splenectomy have changed. The most common indications for splenectomy are, in descending order of frequency:**

**A. Traumatic injury, immune thrombocytopenia, hypersplenism.**

**B. Immune thrombocytopenic purpura, traumatic injury, hypersplenism.**

**C. Hypersplenism, traumatic injury, immune thrombocytopenia.**

**D. Immune thrombocytopenia, hypersplenism, traumatic injury.**

**E. None of the above.**

**Answer: A**

**25. ITP:**

**A. Is most common in men in their 20s.**

**B. Is frequently cured in adults by corticosteroid administration.**

**C. Usually requires splenectomy in children.**

**D. Is most common in the sixth decade of life.**

**E. Is in remission in more than 80% of patients with splenectomy.**

**Answer: E**

**26. Splenectomy and perioperative therapy for ITP:**

**A. Follow successful steroid therapy.**

**B. Respond permanently to high-dose intravenous gamma globulin.**

**C. Are best preceded by polyvalent vaccines for Pneumococcus, Haemophilus influenzae, and Neisseria meningitidis.**

**D. Cannot be done laparoscopically.**

**E. Are associated with splenomegaly.**

**Answer: C**

**27. Which of the following comments does not describe hypersplenism?**

**A. It may occur without underlying disease identification.**

**B. It may be secondary to many hematologic illnesses.**

**C. It is associated with work hypertrophy from immune response**

**D. It requires evaluation of the myeloproliferation.**

**E. It is associated with antibodies against platelets.**

**Answer: E**

**28. Hyposplenism is a potentially lethal syndrome. Which of the following statements is incorrect?**

**A. It is confirmed by isotope scan.**

**B. It is always associated with an atrophic spleen.**

**C. It may be associated with overwhelming post-splenectomy sepsis syndrome (OPSS).**

**D. It is associated with thyrotoxicosis, corticosteroid administration, and some contrast agents.**

**E. It may be associated with ulcerative colitis or sickle cell anemia.**

**Answer: B**

**29. Which of the following statements about the differential diagnosis of hypercalcemia is/are correct.**

**A. Malignant tumors typically cause hypercalcemia by ectopic production of parathyroid hormone (PTH).**

**B. The diagnosis of primary hyperparathyroidism is supported by these serum levels: calcium, 10.8 mg. per dl.; chloride, 104 mmol. per liter; bicarbonate 21 mmol. per liter; phosphorus, 2.4 mg. per dl.; elevated parathyroid hormone.**

**C. Familial hypocalciuric hypercalcemia is distinguished from primary hyperparathyroidism by parathyroid imaging.**

**D. Although serum albumin binds calcium, the measured total calcium value is usually unaffected in patients with severe hypoproteinemia.**

**E. Thiazide diuretics are a good treatment for hypercalcemia and can be given to patients with apparent hypercalcemia of malignancy.**

**Answer: B**

**30. The parathyroid glands:**

**A. Develop from the second and third pharyngeal pouches, along with the palatine tonsil and the thymus.**

**B. Migrate caudally in the neck in normal development but can be found anywhere from the pharyngeal mucosa to the deep mediastinum.**

**C. Secrete PTH and calcitonin to manage calcium homeostasis.**

**D. Usually number four, but frequently number only two or three.**

**E. Contain enzymes that catalyze the conversion of 25(OH) vitamin D 3 to 1,25(OH) 2 vitamin D 3.**

**Answer: B**

**31. Prolactinomas of the pituitary:**

**A. Most often produce dysfunctional uterine bleeding in women.**

**B. Most commonly produce infertility in men.**

**C. When asymptomatic, are best treated surgically early in the microadenoma stage.**

**D. May enlarge during pregnancy, requiring treatment with bromocriptine or surgery.**

**E. Commonly occur in patients with MEN 2.**

**Answer: D**

**32. Addisonian crisis, or acute adrenocortical insufficiency:**

**A. Occurs only in patients with known adrenal insufficiency or in those receiving long-term supraphysiologic doses of exogenous steroids.**

**B. Can mimic an acute abdomen with fever, nausea and vomiting, abdominal pain, and hypotension.**

**C. May cause electrolyte abnormalities, including hypernatremia, hypokalemia, hypoglycemia, and hypercalcemia, as well as eosinophilia on peripheral blood smear.**

**D. Should be diagnosed with the rapid ACTH stimulation test before steroid replacement is instituted.**

**E. May be effectively treated with intravenous “stress-dose” glucocorticoid and mineralocorticoid replacement.**

**Answer: B**

**33. Hyperthyroidism can be caused by all of the following except:**

**A. Graves' disease.**

**B. Plummer's disease.**

**C. Struma ovarii.**

**D. Hashimoto's disease.**

**E. Medullary carcinoma of the thyroid.**

**Answer: E**

**34. Which of the following is true about the use of radioiodine to treat hyperthyroidism?**

**A. If hyperthyroidism is secondary to radioiodine use, it will occur within 2 years of treatment.**

**B. There is a markedly increased risk of future thyroid cancer following radioiodine therapy**

**C. The risk of leukemia following radioiodine therapy is approximately 10%.**

**D. Mutation abnormalities occur in 15% of fetuses in utero following internal treatment of the mother with radioiodine during pregnancy.**

**E. Radioiodine may pass through the placenta and lactating breast to produce hypothyroidism in a fetus or infant.**

**Answer: E**

**35.The principal blood supply to the parathyroid glands is which of the following?**

* 1. **Superior thyroid arteries**
  2. **Inferior thyroid arteries**
  3. **Thyroidea ima arteries**
  4. **Parathyroid arterial branches directly from the external carotid artery**
  5. **Highly variable**

**Answer: b**

**36.Which of the following signs/symptoms are pathognomonic of hyperparathyroidism?**

* 1. **Pathologic fractures of the metacarpals**
  2. **Calcium oxalate nephrolithiasis**
  3. **Hypercalcemia causing mental status changes**
  4. **Atrophy of Type II muscle fibers**
  5. **Osteitis fibrosa cystic**

**Answer: e**

**37.Imaging of the adrenal gland is best achieved with which of the following techniques?**

* 1. **Ultrasound**
  2. **Computed tomography (CT)**
  3. **Arteriography**
  4. **Scintigraphy with 131I-6 b-iodomethyl-19-norcholesterol (NP-59)**
  5. **Scintigraphy with 131I-methaiodobenzylguanidine (MIBG)**

**Answer: b**

**38.A term neonate is noted to have ambiguous female genitalia. This infant is at risk for which of the following potentially life-threatening problems?**

**a.Cardiomyopathy with congestive heart failure**

**b.Sodium wasting nephropathy with hypovolemia**

**c.Respiratory failure from surfactant deficiency**

**d.Spontaneous hemorrhage from thrombocytopenia**

**e.Pulmonary embolus from a hypercoaguable state**

**Answer: b**

**39.Which of the following adrenal lesions can be treated definitively by medical means?**

**a.Benign functional adrenocortical adenoma**

**b.Adrenocortical carcinoma**

**c.Congenital adrenal hyperplasia**

**d.Cushing disease**

**e.Pheochromocytoma**

**Answer: c**

**40.Which of the following statement(s) is/are true concerning radiation therapy after lumpectomy?**

* 1. **The total dose given to the breast is usually in the range of 2500 to 3000 cGy**
  2. **Radiation to the axillary nodal bed is normally part of the procedure in most patients**
  3. **Long-term complications of radiation therapy include rib fractures and arm edema**
  4. **Breast edema and skin erythema usually resolves within a few weeks**
  5. **None of the above**

**Answer: c**

**41. Which of the following variables best predicts prognosis for patients with a recent diagnosis of cutaneous melanoma and no clinical evidence of metastatic disease?**

**A. Breslow thickness.**

**B. Clark's level.**

**C. Ulceration.**

**D. Gender.**

**E. Celtic complexion.**

**Answer: A**

**42. A 38-year-old man presents with a melanoma on the skin of the right calf measuring 5 mm. in thickness. Several large nodes are palpable in the right inguinal region. Which of the following statements about the appropriate management of this clinical problem is false?**

**A. In the absence of systemic disease, the primary melanoma of the right calf should be excised with at least a 2-cm. margin.**

**B. Complete right inguinal node dissection should be performed if there is no evidence of systemic metastasis.**

**C. If further work-up reveals multiple lung metastases of melanoma, they should be excised as soon as possible.**

**D. Chemotherapy for melanoma is primarily palliative; so surgical therapy is preferred if there is no evidence of metastatic disease beyond the inguinal region.**

**E. If the nodes do not contain metastatic disease but are simply reactive, the chance of 5-year survival is 50% or less.**

**Answer: C**

**43. A marker for the diagnosis of pancreatic cancer is:**

**A. CA 15-3.**

**B. CA 19-9.**

**C. Alphafetoprotein (AFP).**

**D. Carcinoembryonic antigen (CEA).**

**E. CYFRA 21-1.**

**Answer: B**

**44. Which of the following tumors may cause elevated CEA levels?**

**A. Breast cancer.**

**B. Colorectal cancer.**

**C. Gastric cancer.**

**D. Lung cancer.**

**E. All of the above.**

**Answer: E**

**45. The presence of which marker is a significant poor prognosis variable for patients with breast cancer:**

**A. CEA.**

**B. C-erb B-2.**

**C. AFP.**

**D. Human chorionic gonadotropin (hCG).**

**E. RB-1.**

**Answer: B**

**46. The most useful circulating marker for patients with hepatocellular carcinoma is:**

**A. CA 50.**

**B. Levels of vitamin B 12.**

**C. CEA.**

**D. AFP.**

**E. hCG.**

**Answer: D**

**47. In patients with colorectal cancer the serum CEA level is a clinically useful measure for all reasons except:**

**A. Prognosis.**

**B. Detection of recurrence.**

**C. Guiding second-look operations.**

**D. Following treatment response.**

**E. Early diagnosis.**

**Answer: E**

**48. Which serum markers are useful in the management of patients with testicular cancer?**

**A. hCG.**

**B. AFP.**

**C. CA 15-3.**

**D. Two of the above.**

**E. None of the above.**

**Answer: D**

**49. Which tumor marker is useful for the management of patients with breast cancer?**

**A. CA 125.**

**B. Inhibin.**

**C. CA 19-9.**

**D. CA 15-3.**

**E. CEA.**

**Answer: D**

**50.A 65-year-old man is seen two years following right hemicolectomy for a Duke’s B-2 carcinoma of the cecum. Although asymptomatic, the CEA level has risen four-fold from a value obtained six months previously. Computed tomography reveals a single, 3 cm lesion in the right hepatic lobe. There is no evidence of extra-hepatic metastatic disease and the patient undergoes right hepatic lobectomy. Which of the following correctly represents the chance of overall 5 year survival?**

* + - 1. **15%**
      2. **33%**
      3. **50%**
      4. **66%**

**Answer: b**

**51.Patients that have acquired immunodeficiency syndrome are at increased risk for which of the following neoplasms?**

* + - 1. **Colorectal cancer**
      2. **Meningioma**
      3. **Kaposi’s sarcoma**
      4. **Hepatocellular carcinoma**
      5. **Esophageal carcinoma**

**Answer: c**

**52. Which of the following statements about the anatomic course of the esophagus is correct?**

**A. The cervical esophagus passes behind and to the right of the trachea.**

**B. The thoracic esophagus enters the posterior mediastinum anterior to the aortic arch.**

**C. The thoracic esophagus passes behind the right mainstem bronchus and the pericardium.**

**D. The esophagus enters the diaphragmatic hiatus at the level of T8.**

**E. The esophagus deviates anteriorly and to the left as it enters the abdomen.**

**Answer: E**

**53. Which of the following statements about esophageal anatomy is correct?**

**A. The esophagus has a poor blood supply, which is segmental in distribution and accounts for the high incidence of anastomotic leakage.**

**B. The esophageal serosa consists of a thin layer of fibroareolar tissue.**

**C. The esophagus has two distinct muscle layers, an outer, longitudinal one and an inner, circular one, which are striated in the upper third and smooth in the distal two thirds.**

**D. Injury to the recurrent laryngeal nerve results in vocal cord dysfunction but does not affect swallowing.**

**E. The lymphatic drainage of the esophagus is relatively sparse, localized primarily to adjacent paraesophageal lymph nodes.**

**Answer: C**

**54. Which of the following statements about the lower esophageal sphincter (LES) mechanism, or high-pressure zone (HPZ), is true?**

**A. The LES is a circular smooth muscle ring that is 3 to 5 cm. long.**

**B. In assessing esophageal manometric data, mean HPZ pressure less than 6 mm. Hg or overall length less than 2 cm. is more likely to be associated with incompetence of the LES and gastroesophageal reflux.**

**C. Esophageal manometry and the acid perfusion (Bernstein) test reliably identify the patient with an incompetent LES mechanism.**

**D. Distal HPZ relaxation occurs within 5 to 8 seconds of initiating a swallow.**

**E. Twenty-four–hour distal esophageal pH monitoring is achieved with an intraesophageal pH electrode positioned at the esophagogastric junction.**

**Answer: B**

**55. Which of the following statements about achalasia is/are correct?**

**A. In most cases in North America the cause is a parasitic infestation by Trypanosoma cruzi.**

**B. Chest pain and regurgitation are the usual symptoms.**

**C. Distal-third esophageal adenocarcinomas may occur in as many as 20% of patients within 10 years of diagnosis**

**D. Manometry demonstrates failure of LES relaxation on swallowing and absent or weak simultaneous contractions in the esophageal body after swallowing.**

**E. Endoscopic botulinum toxin injection of the LES, pneumatic dilatation, and esophagomyotomy provide highly effective curative therapy for achalasia.**

**Answer: D**

**56. Which of the following statements about epiphrenic diverticula of the esophagus is/are correct?**

**A. They are traction diverticula that arise close to the tracheobronchial tree.**

**B. They characteristically arise proximal to an esophageal reflux stricture.**

**C. The degree of dysphagia correlates with the size of the pouch.**

**D. They are best approached surgically through a right thoracotomy.**

**E. The operation of choice is a stapled diverticulectomy, long esophagomyotomy, and partial fundoplication.**

**Answer: E**

**57. Which of the following statements about Schatzki's ring is correct?**

**A. The ring represents a panmural fibrotic stricture resulting from gastroesophageal reflux.**

**B. Dysphagia occurs when the ring diameter is 13 mm. or less.**

**C. The ring occurs within 1 to 2 cm. of the squamocolumnar epithelial junction.**

**D. Schatzki's ring indicates reflux esophagitis.**

**E. Schatzki's ring signifies the need for an antireflux operation.**

**Answer: B**

**58. Which of the following statements about pathology encountered at esophagoscopy is/are correct?**

**A. Reflux esophagitis should be graded as mild, moderate, or severe, to promote consistency among different observers.**

**B. An esophageal reflux stricture with a 2-mm. lumen is not dilatable and is best treated with resection.**

**C. A newly diagnosed radiographic distal esophageal stricture warrants dilation and antireflux medical therapy.**

**D. In patients with Barrett's mucosa, the squamocolumnar epithelial junction occurs 3 cm. or more proximal to the anatomic esophagogastric junction.**

**E. After fasting at least 12 hours, a patient with megaesophagus of achalasia can safely undergo flexible fiberoptic esophagoscopy.**

**Answer: D**

**59. Which of the following statements about the diagnosis and treatment of esophageal leiomyomas is/are correct?**

**A. The majority are diagnosed after they cause dysphagia and chest pain.**

**B. Biopsy is indicated at the time of esophagoscopy, to rule out carcinoma.**

**C. Full-thickness elliptical excision of the esophageal wall is the preferred surgical approach.**

**D. Endoscopic ultrasonography is a reliable means of following leiomyomas conservatively.**

**E. Recurrence of resected leiomyomas is minimized by wide local excision.**

**Answer: D**

1. **Which of the following statements regarding the pathology of esophageal carcinoma is/are correct?**

**A. Worldwide, adenocarcinoma is the most common esophageal malignancy.**

**B. Squamous cell carcinoma is most common in the distal esophagus, whereas adenocarcinoma predominates in the middle third.**

**C. Patients with Barrett's metaplasia are 40 times more likely than the general population to develop adenocarcinoma.**

**D. Metastases from esophageal carcinoma are characteristically localized to regional mediastinal lymph nodes adjacent to the tumor.**

**E. Achalasia, radiation esophagitis, caustic esophageal stricture, Barrett's mucosa, and Plummer-Vinson syndrome are all premalignant esophageal lesions that predispose to the development of squamous cell carcinoma.**

**Answer: C**

1. **Which of the following statements about the surgical treatment of esophageal carcinoma is/are correct?**

**A. The finding of severe dysphagia in association with Barrett's mucosa is an indication for an antireflux operation to prevent subsequent development of carcinoma.**

**B. Long-term survival is improved by radical en bloc resection of the esophagus with its contained tumor, adjacent mediastinal tissues, and regional lymph nodes.**

**C. The morbidity and mortality rates for cervical esophagogastric anastomotic leak are substantially less than those associated with intrathoracic esophagogastric anastomotic leak.**

**D. The leading complications of transthoracic esophagectomy and intrathoracic esophagogastric anastomosis are bleeding and wound infection.**

**E. Transhiatal esophagectomy without thoracotomy achieves better long-term survival than transthoracic esophagectomy.**

**Answer: C**

1. **The best management for a 48-hour-old distal esophageal perforation is:**

**A. Antibiotics and drainage.**

**B. Division of the esophagus and exclusion of the perforation.**

**C. Primary repair with buttressing.**

**D. Resection with cervical esophagostomy, gastrostomy, and jejunostomy.**

**E. T-tube fistula and drainage.**

**Answer: C**

1. **A 50-year-old patient develops sudden left lower chest pain and epigastric pain after vomiting. The patient shows diaphoresis, breath sounds are decreased on the left, and there is abdominal guarding. The most appropriate diagnostic test is:**

**A. Aortography.**

**B. Esophagoscopy.**

**C. Electrocardiogram.**

**D. Film of the chest.**

**E. White blood count.**

**Answer: D**

**64. The following statements about the influence of diet and lifestyle on lower esophageal sphincter (LES) function are true except one. Identify the incorrect statement.**

**A. A high-protein diet increases LES pressure.**

**B. A fat meal results in sustained decrease in LES pressure.**

**C. Chocolate ingestion causes a decrease in LES pressure.**

**D. Peppermint produces a transient decrease in LES values.**

**E. Cigarette smoking produces no significant changes in LES pressures.**

**Answer: E**

1. **When a stricture is present in association with gastroesophageal reflux, each of the following is an acceptable repair for reflux control except one. Identify the poorest repair.**

**A. Intrathoracic total fundoplication.**

**B. Lengthening gastroplasty with total fundoplication.**

**C. Total fundoplication.**

**D. Lengthening gastroplasty with partial fundoplication.**

**E. Partial fundoplication.**

**Answer: E**

1. **When assessing gastroesophageal reflux disease by manometry each of the following statements is correct except one. Identify the incorrect one.**

**A. Absent or extremely low LES pressures have predictive value in identifying more severe reflux.**

**B. Peristaltic dysfunction increases with increasing severity of esophagitis.**

**C. With established reflux disease the UES is hypertensive.**

**D. Esophageal functional changes are worst in patients with a circumferential columnar-lined esophagus.**

**E. Absence of peristalsis may be associated with more severe forms of reflux disease.**

**Answer: C**

1. **The presence of a nonmalignant mid- or upper esophageal stricture always indicates the presence of:**

**A. Alkaline reflux esophagitis.**

**B. Barrett's esophagus.**

**C. Idiopathic reflux disease.**

**D. Mediastinal fibrosis.**

**E. Scleroderma.**

**Answer: B**

1. **First-line therapy for routine peptic duodenal ulcer disease includes:**

**A. Vagotomy and antrectomy.**

**B. Upper endoscopy and biopsy to rule out tumor.**

**C. Evaluation for Helicobacter pylori.**

**D. Serum gastrin determination.**

**E. Cream or milk-based “Sippy” diet.**

**Answer: C**

**69Appropriate management of severe vomiting associated with gastric outlet obstruction from peptic ulcer disease includes all of the following except:**

**A. Nasogastric suction.**

**B. Intravenous hydration.**

**C. Nutritional assessment; upper endoscopy to rule out malignancy.**

**D. Intravenous H 2 antagonist.**

**E. Oral antacid therapy.**

**Answer: E**

**70.All of the following are complications of peptic ulcer surgery except:**

**A. Duodenal stump blowout.**

**B. Dumping.**

**C. Diarrhea.**

**D. Delayed gastric emptying.**

**E. Steatorrhea.**

**Answer: E**

**71The presentation of Zollinger-Ellison syndrome includes all of the following except:**

**A. Hyperparathyroidism in patients with multiple endocrine neoplasia type 1 (MEN 1) syndrome.**

**B. Diarrhea.**

**C. Migratory rash.**

**D. Jejunal ulcers.**

**E. Duodenal ulcers.**

**Answer: C**

**72.All are true about the dumping syndrome except:**

**A. Symptoms can be controlled with a somatostatin analog.**

**B. Diarrhea is always part of the dumping syndrome.**

**C. Flushing and tachycardia are common features of the syndrome.**

**D. Separating solids and liquids in the patient's oral intake alleviates some of the symptoms of the syndrome.**

**E. Early postoperative dumping after vagotomy often resolves spontaneously.**

**Answer: B**

**73In patients with bleeding duodenal ulcers, the endoscopic finding associated with the highest incidence of rebleeding is:**

**A. Visible vessel.**

**B. Cherry-red spot.**

**C. Clean ulcer bed.**

**D. Duodenitis.**

**E. Shallow, 3-mm. ulcer.**

**Answer: A**

**74All of the following are contraindications for highly selective vagotomy except:**

**A. Intractable duodenal ulcer disease.**

**B. Peptic ulcer disease causing gastric outlet obstruction.**

**C. Fundic peptic ulceration.**

**D. Cigarette chain smoking.**

**E. Perforated peptic ulcer disease with more than 24 hours' soilage.**

**Answer: A**

1. **All the following are true of omeprazole except:**

**A. It is the only drug available that has the potential to achieve pharmacologically induced achlorhydria.**

**B. It works by blocking the hydrogen-potassium ATPase in the parietal cell.**

**C. It is parietal cell specific.**

**D. It has a short half-life (about 90 minutes) when taken orally.**

**E. It has been associated with gastric neoplasm in a rat model.**

**Answer: D**

1. **All of the following statements about gastrin-releasing peptide (GRP) are true except:**

**A. In species other than man and dog GRP is commonly referred to as bombesin.**

**B. GRP serves as a neurotransmitter.**

**C. GRP inhibits pancreatic secretion when given intravenously.**

**D. GRP stimulates gastric acid secretion when given intravenously.**

**E. GRP is released in response to cholinergic stimulation of the parietal cells to stimulate release of gastrin.**

**Answer: C**

1. **All of the following measures have been recommended for control of acid secretion in patients with Zollinger-Ellison syndrome except:**

**A. Antrectomy.**

**B. Highly selective vagotomy.**

**C. Total gastrectomy.**

**D. Vagotomy and pyloroplasty.**

**E. Medical therapy with Prilosec (omeprazole).**

**Answer: A**

1. **All of the following contribute to peptic ulcer disease except:**

**A. Cigarette smoking.**

**B. Nonsteroidal anti-inflammatory drugs.**

**C. Helicobacter pylori.**

**D. Gastrinoma.**

**E. Spicy foods.**

**Answer: E**

1. **The sine qua non of the histologic diagnosis of a gastric pseudolymphoma is:**

**A. Extragastric extension of the gastric lesion.**

**B. Nodal involvement beyond the immediate stomach.**

**C. A germinal center in the gastric lesion.**

**D. Extension into esophagus and duodenum.**

**E. Unresponsive to conservative gastric resection.**

**Answer: C**

1. **All of the following statements about surgical management of gastric lymphomas are true except:**

**A. Stage I gastric lymphomas (small lesions confined to the stomach wall) can be cured completely with surgical therapy alone.**

**B. Extensive gastric lymphomas that initially are treated with radiation and/or chemotherapy occasionally perforate during treatment and require secondary resection.**

**C. Patients explored with a presumptive diagnosis of gastric lymphoma should undergo an attempt at curative resection when this is safe and feasible.**

**D. Without a preoperative diagnosis resection for gastric mass should not be attempted unless lymphoma can be excluded.**

**E. Appropriate staging for primary gastric lymphoma includes bone marrow biopsy.**

**Answer: D**

1. **Which of the following measures of obesity correlates best with mortality?**

**A. The 1983 Metropolitan Life Insurance Company tables for ideal body weight.**

**B. Hydroimmersion measurements of body fat composition**

**C. Body mass index (BMI).**

**D. Skinfold thickness.**

**E. Waist to hip ratios (WHR).**

**Answer: C**

1. **The most effective therapy for morbid obesity, in terms of weight control, is:**

**A. Intensive dieting with behavior modification.**

**B. A multidrug protocol with fenfluramine, phenylpropanolamine, and mazindol.**

**C. A gastric bypass with a 40-ml. pouch, a 10- to 20-cm. Roux-en-Y gastroenterostomy.**

**D. A gastric bypass with a 15-ml. pouch, a 40- to 60-cm. Roux-en-Y gastroenterostomy.**

**E. Daily exercise with strong emphasis on utilizing all four limbs.**

**Answer: D**

1. **Which of the following is/are contraindications to gastric bypass surgery?**

**A. Diabetes mellitus.**

**B. Hypertension.**

**C. Pickwickian syndrome.**

**D. Failure to agree to long-term follow-up.**

**E. Sleep apnea.**

**Answer: D**

1. **A 34-year-old morbidly obese diabetic woman underwent a gastric bypass about 12 hours ago. The operation was technically difficult but finally went well. You are called because she now has a temperature of 99.2؛ F, pulse of 134, and some pain in her incision and her back. She looks well; the incision is clean; and her examination is otherwise negative. A bolus of 500 ml. of dextrose/lactated Ringer's did not change her vital signs, except that her pulse rose to 140 without an increase in urine output. Your next step should be:**

**A. Another bolus of crystalloids.**

**B. Posterioanterior and lateral chest films.**

**C. Obtain white cell count, differential count, and electrolyte values.**

**D. Call the operating room and warn them that you need to re-explore for a leak.**

**E. Increase her pain medication.**

**Answer: D**

1. **A patient with gastric adenocarcinoma undergoes subtotal gastrectomy. Pathological examination reveals that the tumor penetrates to the serosa. Regional lymph nodes are not involved. Distant metastases are not detected. What is the correct tumor stage and 5-year survival rate?**

1. **Stage I: 90% 5-year survival**
2. **Stage II: 45% 5-year survival**
3. **Stage III: 15% 5-year survival**
4. **Stage II: 15% 5-year survival**
5. **Stage III: 2% 5-year survival**

**Answer: b**

1. **Renal adenocarcinomas:**

**A. Are of transitional cell origin.**

**B. Usually are associated with anemia.**

**C. Are difficult to diagnose.**

**D. Are extremely radiosensitive.**

**E. Frequently are signaled by gross hematuria.**

**Answer: E**

1. **Ureteral obstruction:**

**A. Is associated with hematuria.**

**B. Is associated with deterioration of renal function and rising blood urea nitrogen (BUN) and creatinine values.**

**C. Is commonly caused by a urinary tract calculus.**

**D. Usually requires open surgical relief of the obstruction.**

**E. Is usually associated with infection behind the obstruction.**

**Answer: C**

1. **Stress urinary incontinence:**

**A. Is principally a disease of young females.**

**B. Occurs only in males.**

**C. Is associated with urinary frequency and urgency.**

**D. May be corrected by surgically increasing the volume of the bladder.**

**E. Is a disease of aging produced by shortening of the urethra.**

**Answer: E**

1. **Which of the following is/are true of blunt renal trauma?**

**A. Blunt renal trauma and penetrating renal injuries are managed similarly.**

**B. Blunt renal trauma with urinary extravasation always requires surgical exploration.**

**C. Blunt renal trauma must be evaluated by contrast studies using either IVP or CT.**

**D. Blunt renal trauma requires exploration only when the patient exhibits hemodynamic instability.**

**E. Any kidney fractured by blunt renal trauma must be explored.**

**Answer: D**

1. **Carcinoma of the bladder:**

**A. Is primarily of squamous cell origin.**

**B. Is preferentially treated by radiation.**

**C. May be treated conservatively by use of intravesical agents even if it invades the bladder muscle.**

**D. May mimic an acute UTI with irritability and hematuria.**

**E. Is preferentially treated by partial cystectomy.**

**Answer: D**

1. **Polyhydramnios is frequently observed in all of the following conditions except:**

**A. Esophageal atresia.**

**B. Duodenal atresia.**

**C. Pyloric atresia.**

**D. Hirschsprung's disease.**

**E. Congenital diaphragmatic hernia.**

**Answer: D**

1. **In neonates with congenital diaphragmatic hernia, which of the following statements is true?**

**A. The defect is more common on the right side.**

**B. Survival is significantly improved by administration of pulmonary vasodilators.**

**C. An oxygen index of 20 is an indication for extracorporeal membrane oxygenation (ECMO).**

**D. Oligohydramnios is a frequent occurrence.**

**E. Mortality is the result of pulmonary hypoplasia.**

**Answer: E**

1. **In neonates with necrotizing enterocolitis, which of the following findings is an indication of significant bowel ischemia?**

**A. Increased gastric residuals.**

**B. Septic shock.**

**C. Cardiac failure due to a patent ductus arteriosus.**

**D. Elevated platelet count.**

**E. Erythema of the abdominal wall.**

**Answer: E**

1. **The treatment of choice for neonates with uncomplicated meconium ileus is:**

**A. Observation.**

**B. Emergency laparotomy, bowel resection, and Bishop-Koop enterostomy.**

**C. Intravenous hydration and a gastrograffin enema.**

**D. Emergency laparotomy, bowel resection, and anastomosis.**

**E. Sweat chloride test and pancreatic enzyme therapy.**

**Answer: C**

1. **The pentalogy of Cantrell includes all of the following except:**

**A. Epigastric omphalocele.**

**B. Sternal cleft.**

**C. Intracardiac defect.**

**D. Pericardial cyst.**

**E. Ectopia cordis.**

**Answer: D**

1. **In infants with duodenal atresia all the following statements are true except:**

**A. There is an increased incidence of Down syndrome.**

**B. Duodenal atresia can be detected by prenatal ultrasound examination.**

**C. It may occur in infants with situs inversus, malrotation, annular pancreas, and anterior portal vein.**

**D. It is best treated by gastroenterostomy.**

**E. There is a high incidence of associated cardiac defects.**

**Answer: D**

1. **The initial treatment of choice for a 2.5-kg. infant with a 20.0-cm. long proximal jejunal atresia and 8.0 cm. of distal ileum is:**

**A. Laparotomy, nasogastric suction, proximal dilatation to lengthen the atretic jejunum, total parenteral nutrition, and delayed anastomosis.**

**B. Laparotomy and proximal end-jejunostomy.**

**C. Laparotomy and immediate small bowel transplantation.**

**D. Laparotomy and double-barrel enterostomy (jejunum and ileum), with refeeding of jejunal contents into distal ileum and delayed anastomosis.**

**E. Laparotomy, tapering jejunoplasty, and end-to-oblique jejunoileal anastomosis.**

**Answer: E**

1. **A 2.8-kg. neonate with excessive salivation develops respiratory distress. Attempts to pass an orogastric catheter fail because the catheter coils in the back of the throat. A chest film is obtained and shows right upper lobe atelectasis and a gasless abdomen. The most likely diagnosis is:**

**A. Proximal esophageal atresia without a fistula.**

**B. Proximal esophageal atresia with a distal tracheoesophageal (TE) fistula.**

**C. “H-type” TE fistula.**

**D. Esophageal atresia with both proximal and distal TE fistula.**

**E. Congenital esophageal stricture.**

**Answer: A**

1. **Neonates with NEC may demonstrate all of the following findings on abdominal films except:**

**A. Pneumatosis intestinalis.**

**B. Portal vein air.**

**C. Pneumoperitoneum.**

**D. Colovesical fistula.**

**E. Fixed and thickened bowel loops.**

**Answer: D**

**100. The most common type of congenital diaphragmatic hernia is caused by:**

**A. A defect in the central tendon.**

**B. Eventration of the diaphragm in the fetus.**

**C. A defect through the space of Larrey.**

**D. An abnormally wide esophageal hiatus.**

**E. A defect through the pleuroperitoneal fold.**

**Answer: E**