M_PTQ_CGRN (400+ Questions) - Quiz Questions with Answers

1.

Which of the following dairy products is MOST LIKELY to contain the least lactose for those who are lactose intolerant?

Whole milk

Cheese

Regular whole-fat yogurt

Greek-style whole-fat yogurt

Explanation:

Because Greek-style yogurt is thicker than regular whole-fat yogurt, more of the whey is removed, and the lactose is part of the whey, so those who are lactose intolerant are more likely to tolerate Greek yogurt than other dairy products. Those who are lactose intolerant lack the enzyme needed to digest lactose, resulting in stomach cramps, gas and distention, and diarrhea after eating or drinking dairy products. Some dairy products are now lactose-free, and Lactaid® can be taken to replace the missing enzymes.

2.

How soon after collection should duodenal aspirate be transported to the laboratory?

Immediately

Within 2 hours

Within 4 hours

Within 24 hours

Explanation:

Duodenal aspirate should be immediately transported to the laboratory because it must be examined within 60 minutes of collection. The aspirate should be collected (at least 2 mL) in a sterile centrifuge tube. Duodenal aspirates may be useful in diagnosing Giardia duodenalis and Strongyloides stercoralis. Culture and sensitivity may also be done. The specimen should be maintained at room temperature.

3.

Which of the following complications is MOST LIKELY to occur with ulcerative colitis?

Abscess

Fistula

Fissure

Obstruction

Explanation:

The complication that is most likely to occur with ulcerative colitis is abscess. Abscesses form as the tissue ulcerates and becomes inflamed; however, because the disorder involves the superficial mucosa and is not transmural, fistulas, fissures, and obstructions (common with

Crohn's disease) usually do not occur. Inflammation generally begins in the rectum and spreads proximally throughout the colon. Patients tend to experience periods of remission and exacerbation, and symptoms may be mild, severe, or fulminant.

4.

Patients with celiac disease must be advised to avoid foods that contain which of the following?

Lactose

Purines

Gluten

Food additives

Explanation:

Patients with celiac disease must be advised to avoid food that contain gluten, which is a protein that is found in various grains, such as rye, barley, and wheat. Patients should eat oat products only if they are labeled as gluten-free because they may be contaminated by wheat products during processing in some facilities. Many processed foods and liquids (such as soups, beer, candy, processed meats) contain hidden gluten. Additionally, some medications utilize gluten-containing binding agents.

5.

Which of the following ethnic groups have the highest prevalence of ulcerative colitis?

African Americans

Middle Easterners

Asians and Hispanics

Caucasians and Ashkenazi Jews

Explanation:

The ethnic groups with the highest prevalence of ulcerative colitis are Caucasians and Ashkenazi (European) Jews. While the cause of ulcerative colitis is not clear, a genetic predisposition appears to play a role as family history is a risk factor. Studies have shown that patients with inflammatory bowel disease, such as ulcerative colitis and Crohn's disease, are also at increased risk of developing autoimmune disorders, such as multiple sclerosis and arthritis.

6.

A 40-year-old patient with a history of Chagas disease reports increasing dysphagia, cough, regurgitation, drooling, and heartburn. Which of the following is the MOST LIKELY cause?

GERD

Gastric ulcer

Megaesophagus

Esophagitis

Explanation:

If a 40-year-old patient with a history of Chagas disease reports increasing dysphagia, cough, regurgitation, drooling, and heartburn, the most likely cause is megaesophagus, resulting from destruction of neurons. Patients usually exhibit symptoms between ages 20 and 40 and may also have hypertrophy of the salivary glands, resulting in drooling because of excess saliva. Patients may also develop megacolon, which can lead to fecal impaction and bowel obstruction because of lack of motility.

7.

Which of the following is the drug of choice to treat *Giardia* infection?

Metronidazole

Iodoquinol

Tetracycline

Diloxanide furoate

Explanation:

The drug of choice to treat Giardia infection is metronidazole (250 mg TID for 5 to 7 days). Giardia often contaminates water sources and spreads easily from person to person through fecal contact. Symptoms include abdominal pain/cramping, diarrhea (greasy stools), nausea, and vomiting. Patients often experience weight loss and have persistent symptoms for up to 3 weeks, and some people develop a chronic form of infection that can last for months or years.

8.

Which of the following is the MOST common test for pinworms?

Stool specimen

Cellophane test

Antibody test

C-reactive protein

Explanation:

The most common test for pinworms is the cellophane test in which tape is touched to the perineal area several times and then examined under a microscope for eggs. This test has sensitivity of about 90%. The test should be done for 3 days in a row and when the patient first awakens in the morning. Stool specimens are usually negative because only about 5% of those infected have eggs in the stool.

9.

For moderate sedation, ASA guidelines require monitoring of which of the following?

ECG and pulse oximetry

EEG

ECG

Capnography and pulse oximetry

Explanation:

For moderate sedation (AKA conscious sedation) ASA guidelines require monitoring of capnography and pulse oximetry. Level of consciousness should be assessed at least every 5 minutes and supplemental oxygen provided unless otherwise contraindicated. Resuscitative

equipment and reversal agents (flumazenil and naloxone) must be available and a person trained in assessment and use available. During the recovery period after the procedure oxygenation, ventilation, and circulation should be monitored every 5 to 15 minutes.

10.

Which of the following is the primary reason for liver transplants?

Hepatitis A

Hepatitis B

Hepatitis C

Hepatitis D

Explanation:

The primary reason for liver transplants is hepatitis C, which markedly increases risk of liver failure and hepatic cancer. Hepatitis C is spread through contact with blood or items contaminated with blood (shared needles, improperly sterilized equipment) and through sexual contact, tattooing, and piercing. No vaccine is available but antiviral treatments are available and up to 90% effective. Those with hepatitis C must avoid use of alcohol as it may cause progression of the disease.

11.

Which of the following is the MOST common carbapenem-resistant Enterobacteriaceae (CRE) in the United States?

***Klebsiella pneumoniae* carbapenemase (KPC)**

New Delhi Metallo-beta-lactamase (NDM-1)

Verona Integron-Mediated Metallo-beta-lactamase (VIM)

Escherichia coli carbapenemase (ECC)

Explanation:

The most common carbapenem-resistant Enterobacteriaceae (CRE) in the United states is Klebsiella pneumoniae carbapenemase (KPC). New Delhi Metallo-beta-lactamase (NDM-1) is found in Pakistan and India. Escherichia coli carbapenemase (ECC), an increasing concern, is found in the Middle East, South American, India, and Southeast Asia. Verona Integron-Mediated Metallo-beta-lactamase (VIM) is found in Southern Europe, Southeast Asia, and scattered cases (Indiana) in the US.

12.

When examining the abdomen for bowel sounds, for how long should the nurse auscultate before determining bowel sounds are absent?

1 minute

2 minutes

3 minutes

5 minutes

Explanation:

When examining the abdomen for bowel sounds, the nurse should auscultate for five minutes before determining that bowel sounds are absent. Most commonly, bowel sounds are heard 5 to 30 times a minute, usually heard best in the RLQ. Abnormal bowel sounds are classified as hyperactive (loud, high-pitched, gurgling), hypoactive (diminished), or absent (silent). Hyperactive sounds are associated with mechanical bowel obstruction (early), diarrhea, gastroenteritis, and use of laxatives. Hypoactive sounds are associated with peritonitis, and paralytic ileus, and late obstruction.

13.

The gastroenterology unit has experienced an outbreak of *Clostridium difficile* infections involving 10 patients over a 2-week period. In order to reduce further transmission of the infection, on which of the following should the staff should concentrate efforts?

Antibiotic stewardship

Contact precautions/hand hygiene

Testing patient stool specimens

Limiting patient contacts

Explanation:

If the gastroenterology unit has experienced an outbreak of Clostridium difficile infections involving 10 patients over a two-week period, in order the reduce transmission of the infection, the nurse and staff members and should concentrate efforts on the utilization of proper contact precautions and hand hygiene as the infection is easily spread through contaminated hands. The spores can remain viable on environmental surfaces for long periods of time. Housekeeping procedures should also be reviewed.

14.

A patient who has recently had formation of an ileostomy suffers from disturbed body image. Which of the following is the BEST nursing intervention?

Avoid discussing the colostomy

Encourage the patient to verbalize feelings

Focus on the positives

Provide information about colostomy care

Explanation:

If a patient who has recently had formation of an ileostomy suffers from disturbed body image, the best nursing intervention is to encourage the patient to verbalize feelings. The nurse must remain supportive and allow the patient to progress at his/her own speed in viewing and learning to care for the ileostomy. Some patients may benefit from counseling if their body image issues do not resolve or if they worsen.

15.

A male patient complains of decreased libido and increasing erectile dysfunction. Which of the following OTC drugs/supplements may be contributing?

Cimetidine (Tagamet®)

Vitamin D

Acetaminophen

Docusate

Explanation:

H2 blockers, such as cimetidine (Tagamet®), may decrease libido and increase erectile dysfunction, especially if taken in high doses or frequently during the day. These adverse effects tend to be worse with cimetidine than with other H2 blockers, so the patient may benefit from switching to a different drug or adjusting dosage. The nurse should question the patient about frequency of use and dosage of the drug and encourage the patient to discuss these issues with the physician.

16.

Which of the following disinfectants can provide high-level disinfection?

Isopropyl alcohol 70%

Sodium hypochlorite 6.15%

Glutaraldehyde 2%

Iodophor germicidal detergent

Explanation:

Glutaraldehyde 2%, hydrogen peroxide 7.5%, ortho-phthalaldehyde (OPA), as well as various hydrogen peroxide/peracetic acid combinations can provide high-level disinfection with 12 to 30 minutes of exposure. Manufacturer's recommendations for dilution and use must be followed carefully. Isopropyl and ethyl alcohol (70 to 90%), iodophor germicidal detergent, and sodium hypochlorite 5.25 to 6.15% can be used for intermediate and low-level disinfection at greater than 1-minute exposure.

17.

Which of the following is the primary treatment for a norovirus infection?

Antibiotics

Antivirals

Antiemetics and antidiarrheals

Supportive care and fluids

Explanation:

The primary treatment for norovirus infection is supportive care and fluids. Symptoms generally include diarrhea and vomiting with symptoms persisting for 1 to 3 days. Most people do not require treatment, but if diarrhea or vomiting is severe, an antiemetic or antidiarrheal may be prescribed if the patient is younger than 65. If severe dehydration occurs, the patient may require intravenous fluids until able to resume adequate oral intake.

18.

In which of the following parts of the bowel are fats, proteins, and carbohydrates absorbed?

Jejunum

Duodenum

Ileum

Throughout the small bowel

Explanation:

Almost all nutrients are absorbed by the small intestines, with the majority absorbed in the jejunum although some nutrients are absorbed at different parts of the small intestine:

- *Jejunum: Sodium, chloride, fats, proteins, and carbohydrates.*
- *Ileum: Bile salts and vitamin B-12.*
- *Duodenum: Iron.*
- *Throughout the small bowel: Magnesium phosphate, water, lipids, and potassium.*

Following a meal, residual wastes travel through the gastrointestinal tract and reach the terminal ileum within about 4 hours. Once in the large intestine, fluid and electrolytes continue to be absorbed and the stool thickens.

19.

If a patient has persistent dyspepsia/indigestion, which type of food is likely to cause the MOST discomfort?

Proteins

Carbohydrates

Fats

All cause similar reactions

Explanation:

While all foods can cause dyspepsia/indigestion, fatty foods usually cause the greatest discomfort because they are digested more slowly and stay in the stomach for a longer period of time. Patients with chronic dyspepsia may benefit from a low-fat diet. Some foods (spicy food, lettuce, gas-producing vegetables) may also result in increased discomfort. About a fourth

of adults experience some degree of dyspepsia, which may include heartburn, bloating, feeling of fullness, and belching.

20.

If assisting with an endoscopic procedure, which of the following PPE should the nurse expect to wear?

Gown and gloves

Gown, gloves, and face mask

Gown, gloves and eye guard

Full surgical attire

Explanation:

If assisting with an endoscopic procedure, the nurse should expect to wear full surgical attire (gown, gloves, face mask, eye guard or face shield, hair and foot coverings) as required by CMS. Since 2009, operating rooms and procedure rooms must function under the same guidelines for sterility although endoscopic procedures are generally not considered sterile procedures. However, because of a number of outbreaks associated with endoscopy (such as hepatitis C), more stringent standards were imposed.

21.

Which of the following is a common age-related change in the stomach?

Increased secretion of gastric acids

Decreased production of hydrochloric acid

Increased gastric motility and emptying

Increased secretion of digestive enzymes

Explanation:

A common age-related change in the stomach is decreased production of hydrochloric acid, which results in a slower digestive process. Motility slows and the stomach empties more slowly. The mucosal surface begins to atrophy and degenerate and other gastric acids and digestive enzymes decrease. As the person ages, these changes are likely to result in increased food intolerances and malabsorption (including decreased absorption of vitamin B-12).

22.

What distance from the anus can a flexible sigmoidoscope examine?

25 cm/10 inches

45-50 cm/16-20 inches

50-75 cm/20-30 inches

75-100 cm/30-40 9nches

Explanation:

The flexible sigmoidoscope can examine a 45 to 50 cm/16 to 20 inches distance from the anus, compared to a rigid sigmoidoscope, which can examine only about 25 cm/20 inches. Additionally, the flexible sigmoidoscope allows video and still images to be obtained. The rigid

sigmoidoscope is used much less frequently with the advent of flexible sigmoidoscopes although a rigid sigmoidoscope may be used along with a digital rectal exam for anal/rectal conditions.

23.

During a gastroscopy, the patient becomes very faint and light-headed and experiences hypotension, bradycardia, and diaphoresis. Which of the following is MOST LIKELY the cause of these symptoms?

Vasovagal response

Aspiration

Oversedation

Perforation

Explanation:

If during a gastroscopy a patient becomes very faint and light-headed and experiences hypotension, bradycardia, and diaphoresis, the most likely cause of these symptoms is a vasovagal response, which results from stimulation of baroreceptors during the procedure. The patient may briefly lose consciousness during the episode. The sudden drop in blood pressure decreases blood flow to the brain for a brief period. These episodes are usually transient but may be prolonged with depression of the central nervous system from sedation.

24.

A patient with Crohn's disease is to begin treatment with infliximab, a biologic response modifier. For which of the following should the patient be tested prior to beginning treatment?

Anemia

Diabetes and hepatitis C

TB and hepatitis B

Hepatitis A and B

Explanation:

If a patient with Crohn's disease is to begin treatment with infliximab or any other biologic response modifier, the patient should be tested for TB and hepatis B prior to beginning treatment. Because the drugs have immunosuppressive qualities, they can result in reactivation of both diseases. Biologic response modifiers are also contraindicated for those with a history of lymphoma and may result in severe allergic responses in some patients because they are derived from proteins and not chemicals.

25.

If a patient has a hiatal hernia, what information is important to prevent symptoms?

Avoid reclining for 30 minutes after meals

Use two pillows when sleeping

Eat small frequent meals

Take frequent antacids

Explanation:

If a patient has a hiatal hernia, important information to prevent symptoms (heartburn, reflux, dysphagia) includes eating small frequent meals and avoiding reclining for at least an hour after

meals or eating within 2 hours of bedtime. The head of the patient's bed should be elevated on 4 to 8-inch blocks (pillows are not adequate). Medical treatments can include PPI and/or H2 blockers. Some patients may require surgical intervention if symptoms are severe.

26.

If a chemical spill occurs, which of the following is the BEST initial resource to determine what actions to take?

Manufacturer's hotline

Poison center

Supervisor

Material Data Safety Sheet (MDSS)

Explanation:

If a chemical spill occurs, the best initial resource to determine what actions to take is the Material Data Safety Sheet (MDSS), which must be on file for any chemicals in use. Spills are classified according to size:

- *Small: ≤300 mL.*
- *Medium: >300 mL to 5L.*
- *Large: >5L.*

Various kits are available to neutralize and absorb chemical spills. Large spills may require outside assistance. Some spills require alerts and evacuation because of noxious fumes or other risk factors while others require only restriction from the area of the spill to avoid contact.

27.

Which of the following is the primary purpose of a "time-out" prior to beginning a procedure?

To ensure all members of the team are present

To prevent surgical/procedural errors

To help the team members relax

To remind team members of their responsibilities

Explanation:

The primary purpose of a "time-out" period prior to beginning a procedure is to prevent surgical/procedural errors. Before a designated team member calls for the time out, all team members who will participate must be present and must communicate. The entire team must agree that they have the correct patient, correct site, and correct procedure. If a patient is to have more than one procedure or team members change, additional time-outs must be called before proceeding.

28.

Which of the following is the correct method of administration of vedolizumab (ENTYVIO®), a biologic drug used to treat IBS?

Bolus over 1 minute

Bolus over 5 minutes

Infusion over 15 minutes

Infusion over 30 minutes

Explanation:

The correct method of administration of vedolizumab (ENTYVIO®) is by infusion over 30 minutes. The drug comes packaged in a powdered form and must be reconstituted with 4.8 mL of sterile water injected into the vial, which is then swirled to mix for 15 seconds and allowed to sit for 20-30 minutes to dissolve. The vial is then inverted three times and 5 mL of solution withdrawn by sterile needle and syringe and injected into 250 mL of sterile 0.9% NaCl or Lactated Ringer's solution.

29.

The nurse is to mix two medications in one syringe for administration and injects air into vial A and then vial B. Which of the following is the next step?

Obtain a new needle and syringe

Withdraw medication from vial A

Withdraw medication from vial B

Withdraw medication from either vial A or vial B

Explanation:

If the nurse is to mix two medications for administration and injects air into vial A and then vial B, the next step is to withdraw the medication from vial B while the needle remains in the vial. Once the first medication is obtained, then the needle is inserted into vial A and that medication withdrawn. It is important that the vials are not contaminated with medication from the opposite vial. Prior to mixing medications, a compatibility chart should be accessed to ensure that the two medications can be mixed.

30.

Gastric aspirate must be neutralized with bicarbonate within which of the following durations after collection?

30 minutes

60 minutes

4 hours

8 hours

Explanation:

Gastric aspirate, obtained per an NG tube, must be neutralized with bicarbonate within 30 minutes of collection. For this reason, it is often collected in a special tube that contains bicarbonate. If not, the sample (generally 1 mL but up to 5mL may be requested for suspected TB or fungal infections) must be transported to the laboratory immediately and the laboratory personnel alerted that the sample requires neutralization.

31.

A 28-year-old woman who had gastric bypass surgery (Roux-en-Y) experiences bloating, abdominal cramping, nausea, and vomiting within minutes after eating. Her typical meal consists of a small potato, 3 ounces of meat, half a slice of white bread, half a banana, a small piece of cake, and 8 ounces of sweetened iced tea. Which of the following is indicated as an initial treatment?

Acarbose to delay carbohydrate absorption

Octreotide to slow intestinal emptying

Increased protein, reduced carbohydrates, and avoiding drinking during meals

Decreased protein, increased carbohydrates, and a glass of juice or milk during meals

Explanation:

Dumping syndrome usually responds to a change in dietary habits and is most often caused by carbohydrate intake, so increasing protein, reducing carbohydrates, and avoiding drinking fluids with meals may relieve symptoms. Acarbose is sometimes used with late-onset dumping syndrome (occurring 1 to 3 hours after eating) if other methods are ineffective. Octreotide requires injections and is used only for intractable symptoms because of adverse effects, such as diarrhea, distention, and cholelithiasis.

32.

Prior to a nasogastric tube feeding, a pH check of aspirant reveals a pH of 8. This most likely indicates that the tube tip is in the

stomach.

respiratory system.

small intestine.

esophagus.

Explanation:

A pH greater than 7 (alkaline) of aspirant from an NG tube most likely indicates that the tube tip is in the respiratory system. Gastric fluids tend to be acidic (although this can be altered by medications), so pH usually ranges from 1 to 4. The pH in intestinal fluids is less acidic and should be approximately 6 or higher. Some tubes have pH sensors in place and do not require aspiration to check. Checking pH is not effective with continuous feedings because tube feedings usually have a pH of 6.6 and a neutralizing effect on gastrointestinal pH.

33.

As part of a bowel-training program, a patient has a daily scheduled defecation. What is the best time to schedule a bowel movement?

First thing in the morning after arising

At bedtime

2 hours after a meal

20 to 30 minutes after a meal

Explanation:

The best time for scheduled evacuation is 20 to 30 minutes after a meal because eating stimulates motility. The scheduled time (usually daily but may be 3-4 times weekly depending on individual habits) should be at the same time each day, so work hours or activities should be considered. Stimulation may include drinking hot liquid or rectal stimulation (inserting a gloved, lubricated finger into the anus and running it around the rim of the sphincters). The best position for defecation is upright and leaning forward with knees elevated slightly. The patient should massage the abdomen, strain, and attempt to tighten abdominal muscles and relax sphincters if possible.

34.

Post-infectious irritable bowel syndrome (PI-IBS) is most commonly characterized by which of the following?

Fever

Altered bowel habits with chronic diarrhea

Constipation

Flu-like symptoms

Explanation:

Post-infectious irritable bowel syndrome is a chronic bowel inflammation that develops in some people after acute enteritis, characterized by altered bowel habits, usually with chronic diarrhea and abdominal pain. About two-thirds have predominately diarrhea, a fourth alternate between constipation and diarrhea, and the remaining have primarily constipation. Onset of symptoms is often abrupt. Symptoms often persist for years, with 40% still reporting symptoms after 6 years. Treatment usually entails antidiarrheal medication and a low fiber diet.

35.

A Navajo patient tells the nurse that he has "ghost sickness." Which of the following is the MOST appropriate response?

"There is no such disease."

"What do you mean?"

"Is that a common name for a real illness?"

"How does ghost sickness make you feel?"

Explanation:

If a Navajo patient tells the nurse that he has "ghost sickness," the most appropriate response is: "How does ghost sickness make you feel?" This response respects the patient's perception of the disease and helps the nurse to understand what symptoms the patient is attributing to the disorder. The Navajo believe that ghost sickness is brought about by evil spirits and believe

that a tribal healer may be able to overcome the spirit. Typical symptoms include weakness, nightmares, fear, and feelings of suffocation.

36.

In conducting research, which of the following types of studies represents one in which those with a condition (such as infection) are compared to those without the condition?

Retrospective cohort study

Prospective cohort study

Case control study

Cross-sectional study

Explanation:

Case control studies compare those with a condition (cases) to a group without it (controls) to determine if the affected group has characteristics that are different. Prospective cohort studies choose a group of patients without disease, assess risk factors, and then follow the group over time to determine (prospect for) which ones develop disease. Retrospective cohort studies are initiated after a condition develops and data is collected retrospectively from medical records to evaluate whether members of the cohort selected had exposure and developed disease. Cross-sectional studies assess both disease and exposure at the same time in a target population, evaluating the presence of disease at a point in time.

37.

Which of the following is a typical symptom associated with rectoceles?

Chronic constipation

Chronic diarrhea

Pulling sensation in pelvic area

Vaginal discharge

Explanation:

Rectoceles can cause chronic constipation and difficulty in passing stool because of weakening of the muscles, contributing to fecal incontinence. Untreated, rectoceles can cause inflammation, ulcerations, and fistula formation. Pessaries may reduce the prolapse. Surgical repair may not correct all symptoms, especially underlying damage to muscles, and can result in surgical trauma to the rectum or sphincters, adding to the risk of incontinence. Rectoceles (rectal prolapses) occur when the muscles between the wall of the vagina and rectum weaken and the rectum prolapses or protrudes.

38.

A patient being treated for a gastric ulcer has been stable on medications. Which of the following indicates a possible emergent situation that the nurse should report to the physician immediately?

Inability to sleep well and generalized anxiety

Periodic epigastric pain (heartburn) relieved by medications

Nausea after taking prescribed antibiotics

Increasing back and epigastric pain unrelieved by medications

Explanation:

A patient who has been stable on medications for gastric ulcer and begins to experience increasing back and epigastric pain that is unrelieved by medication may be experiencing erosion of the ulcer through the gastric serosa and into the surrounding organs and tissues, such as the pancreas or biliary tract. Penetration has a less acute presentation than perforation, which usually involves sudden acute abdominal pain (sometimes referred to the right shoulder), hypotension, bradycardia, omitting, and abdominal distention and rigidity.

39.

Peristomal abscess is most commonly associated with which of the following conditions?

Crohn's disease

Systemic bacterial infection

Paralytic ileus

Ulcerative colitis

Explanation:

Peristomal abscess is common with active Crohn's disease distal to the stoma. Crohn's disease is a form of inflammatory bowel disease in which ulcerations occur in the small and sometimes the large intestines. Peristomal abscess is characterized by open (from fistulae) and closed lesions that are painful, swollen, and erythematous. Peristomal abscess may also occur after stomal revision because of contamination from skin bacteria. Colostomy irrigation may result in perforation that causes abscess formation. A peristomal abscess rarely heals spontaneously but requires surgical incision.

40.

Which of the following histamine receptor antagonists should those taking oral contraceptive agents or estrogen avoid?

Ranitidine (brand name Zantac)

Famotidine (brand name Pepcid)

Cimetidine (brand name Tagamet)

Nizatidine (brand name Axid)

Explanation:

Cimetidine (brand name Tagamet): First developed but used less frequently than others because of inhibition of enzymes that results in drug interactions, especially with contraceptive agents and estrogen. Ranitidine (brand name Zantac): Developed to decrease drug interactions and improve patient tolerance. Its activity is about 10 times that of cimetidine. It may be used in combination with other drugs to treat ulcers. Famotidine (brand name Pepcid): May be combined with an antacid to increase the speed of effects, as it has a slow onset. It may be used pre-surgically to reduce postoperative nausea. Nizatidine (brand name Axid): Latest to be developed and about equal in potency and action to ranitidine.

41.

Which test measures the pressure of the anal sphincter muscles, degree of rectal sensation, and neural reflexes?

Anal wink

Bulbocavernosus reflex

Endoanal ultrasound

Anal manometry

Explanation:

Anal manometry measures the pressure of the sphincter muscles, the degree of sensation in the rectum, and whether the neural reflexes that control normal bowel movements are intact. Anal wink (anocutaneous reflex, a reflexive contraction of the anus in response to gentle stroking or stimulation of the skin around the rectum) and Bulbocavernosus reflex (a reflexive contraction of the anus in response to natural or electrical stimulation of the bulbocavernosus muscle of the penis), are used to determine interruption or defect in the reflex arc. Endoanal ultrasound is used to diagnose perianal fistulas and abscesses and to assess sphincter damage.

42.

Which provision of the National Patient Safety Goals governs getting laboratory test results to the appropriate staff person on time?

Improving staff communication

Identifying patients correctly

Identifying patient safety risks

Preventing surgical mistakes

Explanation:

Improving staff communication includes ensuring that the appropriate staff person receives laboratory test results on time and establishing a process for taking orders/report and read back for verbal/telephone orders. Other provisions include:

- *Identifying patients correctly: 2 identifiers for medicines, blood, or blood products.*
- *Using medications safely: complete medicine list, label medications, removing concentrated electrolytes from patient care units.*

- *Preventing infection: CDC handwashing procedures, infection control guidelines.*
- *Identifying safety risk: includes fall prevention.*
- *Preventing surgical mistakes: checklists, marking surgical site, presurgical pause.*

43.

A patient is scheduled for anal sphincter electromyography. Which of the patient's medications should be stopped prior to the EMG?

Stool softener

Anticholinergic

Antibiotic

Warfarin

Explanation:

Anal sphincter electromyography (EMG) assesses muscle contractions to determine if the sphincter muscles are contracting properly. Drugs such as muscle relaxants and cholinergic and anti-cholinergic preparations can affect the outcome of the test. The procedure begins with the patient lying on the left side. A small lubricated sponge or plug electrode is inserted into the anal canal. Alternately, needle electrodes may be used. The patient must lie still during the procedure or results will be affected. Electrical activity of the anal sphincter muscles is recorded on a computer screen while the patient tightens the sphincter muscles, relaxes, and pushes.

44.

Which of the following is most important to avoid fluid and electrolyte imbalance with an ileostomy?

Increase intake of high fiber foods to slow absorption

Increase intake of water with diarrhea

Take routine antidiarrheal medication

Monitor intake and output

Explanation:

Monitoring intake and output is most important in preventing fluid and electrolyte imbalance along with ensuring adequate nutrition. During episodes of diarrhea, the patient should substitute water with a sports drink designed to replenish electrolytes and supply nutrition. With electrolyte imbalance, just increasing the oral intake of fluids is not sufficient because these fluids will be excreted through the kidneys and may not correct the electrolyte imbalance. If stools are too liquid, the patient can increase fiber: and if stools are too dry, sodium. Antidiarrheal agents should not be taken routinely but as necessary when dietary changes are insufficient.

45.

A patient with a loop ileostomy and a retained distal segment of bowel has copious anal discharge of mucous. Which of the following is the most likely cause?

Normal mucous production

Diversion colitis

Anastomotic leak

Fluid and electrolyte imbalance

Explanation:

While some anal mucous discharge is normal, copious discharge is often associated with diversion colitis in which the distal segment becomes inflamed. Treatment includes rectal irrigation and topical steroids as well as oral antibiotics. The perianal area should be cleansed. Applying protective cream or ointment prevents irritation of the skin. The mucous fistula should be checked each time the appliance is changed and mucous gently wiped from the opening. The stoma should remain pink. Changes in color or swelling may indicate compromised circulation or infection.

46.

Doppler ultrasound is used primarily to assess which of the following?

Size and shape

Blood flow

Function

Consistency (air-filled, fluid-filled)

Explanation:

Doppler ultrasound is used primarily to assess blood flow (direction, speed). As part of an abdominal ultrasound, Doppler ultrasound may help to identify impaired circulation to the organs as well as changes in blood flow associated with tumors. Doppler imaging differentiates between antegrade (expected forward movement) and retrograde (unexpected movement) blood flow. Doppler imaging is often used to assess hepatic blood flow as different disease processes result in distinctive changes in blood flow.

47.

According to the ANA Nursing Code of Ethics, nurses must support a patient's autonomy and self-determination. A 44-year-old Asian woman states a treatment preference but plans to leave the decision to family members. Which of the following actions is correct?

Recognize that cultural values regarding individualism vary and respect the patient's right to be guided by family

Try to convince the patient to assert herself

Tell the family that the patient should be the one to make the decision

Ask the ethics committee to intervene

Explanation:

Under the ANA Nursing Code of Ethics, autonomy and self-determination are viewed within the broad context of diverse cultures. The idea of individualism is less important in some cultures, so the nurse must respect and appreciate the patient's right to be guided by her family. Trying to convince the patient to assert herself may just lead to emotional conflict. This is not an appropriate concern for the ethics committee, because the woman is not being forced to comply with family decisions but chooses to do so.

48.

The nurse is teaching a 50-year old woman with a colostomy to do irrigations and has prepared written directions and a video, but the patient ignores them and picks up the equipment and looks at each part, trying to figure it out. The patient's learning style is probably which of the following?

Auditory

Visual

Kinesthetic

Mixed

Explanation:

Kinesthetic learners learn best by handling, doing, and practicing and should be allowed to handle supplies/equipment with minimal directions. They benefit from demonstrating their understanding by doing the procedure. Visual learners learn best by seeing and reading and benefit from written directions, videos, diagrams, pictures, and demonstrations. Auditory learners learn best by listening and talking, so procedures should be explained during demonstrations. Auditory learners benefit from audiotapes and extra time for questions.

49.

A patient who receives multiple transfusions for GI bleeding with citrated blood products must be monitored closely for which of the following?

Hyponatremia

Hypomagnesemia

Hypokalemia

Hypocalcemia

Explanation:

Patients who receive multiple transfusions with citrated blood products must be carefully monitored for hypocalcemia. Calcium is important for transmitting nerve impulses and regulating muscle contraction and relaxation, including the myocardium. Calcium activates enzymes that stimulate chemical reactions and has a role in coagulation of blood. Values include:

- *Normal values: 8.2 to 10.2 mg/dL*
- *Hypocalcemia: less than 8.2 mg/dL*
- *Critical value: less than 7 mg/dL*
- *Hypercalcemia: greater than 10.2 mg/dL*
- *Critical value: greater than 12 mg/dL*

Symptoms include tetany, tingling, seizures, altered mental status, and ventricular tachycardia. Treatment is calcium replacement and vitamin D.

50.

The patient has a percutaneous endoscopic gastrostomy (PEG) and has developed leakage about the tube. What initial intervention is indicated?

Check balloon to ensure adequate inflation

Stabilize the tube with the bumper and external stabilizer

Replace tube

Apply barrier ointment

Explanation:

The PEG tube does not have an inflatable balloon, but the tube should be stabilized by pulling gently to ensure the internal bumper is against the abdominal wall and then sliding the external stabilizer to 1.5 cm above skin. Replacing the PEG tube is done only if the leakage cannot be otherwise controlled. Routine skin care, including application of barrier ointment or other skin

sealant, is necessary to prevent skin breakdown. In some cases, alginates, foam dressing, gauze, or pouching may be necessary.

51.

For which of the following is a positive Murphy's sign an aid in diagnosis?

Differentiating cholecystitis from choledocholithiasis

Diagnosing cholecystitis in geriatric patients

Diagnosing pancreatitis

Differentiating ascending cholangitis from pancreatitis

Explanation:

A positive Murphy's sign is indicative of cholecystitis but is negative with choledocholithiasis and ascending cholangitis. This test is not accurate for geriatric patients, so a negative finding does not rule out cholecystitis for these patients. To test for Murphy's sign, hook the fingers under the right costal margin at the midpoint, palpating deeply, and ask the patient to inhale deeply. Positive results occur with pain causing the patient to stop inspiring. The Rovsing's sign —pain in the RLQ when left-sided abdominal pressure is applied—suggests appendicitis along with RLQ pain (rebound tenderness) on quick removal of pressure.

52.

Which of the following is a contraindication for upper GI endoscopy?

Reflux disease

Esophageal diverticulum

Barrett esophagus

Caustic esophageal injury

Explanation:

Esophageal diverticulum is a contraindication for upper GI endoscopy because the scope may enter the diverticulum sac, resulting in a perforation. Endoscopy is indicated for complicated reflux disease, such as when the patient exhibits dysphagia or iron deficiency anemia and is routinely used to diagnose, biopsy tissue, assess, and treat Barrett's esophagus. Endoscopy is usually done within 24 hours after caustic esophageal injuries, such as from accidental or deliberate ingestion of liquid or crystalline alkali, to assess the degree of mucosal tissue damage.

53.

In evidence-based research, what does persistent erratic findings in tracking and trending suggest?

Changes in patient population requiring changes in processes of care

Errors in statistical analysis of processes of care

Normal day-to-day variations in processes of care

Inconsistent or inadequate processes of care

Explanation:

While trends will show some normal variation, if the trend becomes erratic and measures are inconsistent, this suggests that the processes of care are not consistent or are inadequate. Tracking and trending is central to developing research-supported, evidence-based practice and is part of continuous quality improvement. Once processes and outcomes measurements are selected, then at least one measure should be tracked for a number of periods of time, usually in increments of 4 weeks or quarterly. This tracking can be used to present graphical representation of results that will show trends.

54.

Prior to beginning an invasive procedure, which of the following is most important for infection control?

Completing a safety pre-procedure checklist

Ensuring correct patient, correct procedure

Checking patient records to make sure pre-procedure orders have been carried out

Providing adequate patient education

Explanation:

While all of these are important, studies have shown that completing a safety pre-procedure checklist is highly effective in reducing infections and other complications. Checklists should be standardized according to discipline/procedure and required for all procedures to ensure that infection control and safety practices are followed. Checklists usually include ensuring correct patient, following the correct procedure, and checking patient records to make sure orders have been carried out. Checklists vary but may include handwashing, use of barrier precautions, and checking for known allergies.

55.

A 25-year-old woman who required an ileostomy refuses to look at the stoma or participate in care postoperatively. Which of the following is the most likely to promote cooperation?

Refer patient to a psychologist

Ask family to intervene

Arrange visit with a recovered ostomate

Advise patient of the importance of self-care

Explanation:

A visit from a recovered ostomate who is functioning well can provide invaluable support. Refusing to look at the stoma or participate in care after surgery is very common as patients grapple with the alteration in body image and anxiety about their role in the family and society, their sexuality, and their ability to resume their normal activities. Family members should be encouraged to learn about ostomy care and to provide support as well, but they may also be very stressed and unsure. Referral to a psychologist may be indicated if the patient cannot overcome her anxiety and fears.

56.

Over-transfusing must be avoided with treatment for esophageal variceal hemorrhage for which of the following reasons?

Underlying coagulopathy

Increased central and portal venous pressures

Generalized edema

Third-space shift

Explanation:

Over-transfusing to treat esophageal variceal hemorrhage can result in increased central and portal venous pressures, increasing the risk of rebleeding, so the patient must be monitored very carefully. Coagulopathy is commonly found related to underlying cirrhosis. If actively bleeding, those with an INR above 1.8 to 2.0 or with platelet counts below 50,000 should be treated with fresh frozen plasma (20 mL/kg loading, followed by 10 mg/kg every 6 hours) or platelets. About half the hemorrhages will stop spontaneously, but over half of these patients experience rebleeding within 7 days.

57.

The nurse is using the BVMGR (beliefs, values, meanings, goals, and relationships) rubric for implementing spiritual care. To which of the following do these aspects apply?

The nurse

The culture

The patient

The organization

Explanation:

If the nurse is using the BVMGR (beliefs, values, meanings, goals, and relationships) rubric for implementing spiritual care, these aspects apply to assessment of the patient. That is, the nurse should try to understand the patient's BVMGR and should not let personal BVMGR intrude and should avoid any indication of proselytizing when the nurse's BVMGR is at odds with the patient. While the nurse may not share the patient's belief system, the nurse should always seek to understand and to show respect for it.

58.

Which of the following laboratory findings 36 hours after hospital admission is predictive of severe pancreatitis?

Serum calcium greater than 8 mg/dL (2.0 mmol/L)

BUN decrease less than 5 mg/dL

Decrease in hematocrit greater than 10%

PO_2 less than 80 mm Hg

Explanation:

A decrease in hematocrit greater than 10% within 48 hours of hospital admission is predictive of severe pancreatitis. Other warning signs include a BUN greater than 5 mg/dL, serum calcium less than 8 mg/dl, a base deficit greater than 4 mEq/L, PO_2 less than 60 mm Hg, and fluid retention/sequestration greater than 6 liters. On admission, indications include age over 55 years, white blood count greater than 16,000, serum glucose greater than 200 mg/dL, serum LDH >350 IU/L, and Aspartate aminotransferase (AST) greater than 250 U/mL.

59.

Which of the following actions is an example of Standard I, Quality of Practice, in Standards of Professional Performance of the Standards of Clinical Practice and Role Delineation for Certified Gastroenterology Nurses?

Participating in peer review

Collecting data regarding quality of care

Demonstrating commitment to lifelong learning

Mentoring

Explanation:

1. *Standard I, Quality of Practice: Collecting data and participating in quality of care activities.*
2. *Professional Practice Evaluation: Participating in performance appraisal, feedback, peer review, and demonstrating cultural competency.*
3. *Education: Having commitment to lifelong learning.*
4. *Collegiality: Sharing with others, mentoring, participating in professional organizations.*
5. *Ethics: Complying with ANA Code of Ethics, maintaining privacy and protecting patient autonomy.*
6. *Collaboration: Collaborating with other health professionals, patient, and family members.*
7. *Research: Participating in research, reading, and utilizing research.*
8. *Resource Utilization: Considering costs, effectiveness, and safety, and delegating care.*
9. *Leader: Utilizing teamwork and mentoring and promoting the profession.*

60.

Which of the following is the first method to use to clear a blockage in an endoscope's air channel?

Flush with water with a small syringe (1 to 5 mL)

Flush with water with a large syringe (50 mL)

Flush with air

Remove tube and cleanse with fine wire

Explanation:

The first method to use to clear a blockage in one of the endoscopic channels is to flush with water using a small syringe (1 to 5 mL). A small syringe applies more water pressure than a larger syringe, although the larger syringe is better for suctioning. Water also applies more pressure than flushing with air and is better able to remove residue that may be blocking the channel. Only if flushing is ineffective should the tube be removed and wire used to cleanse residue. Scrupulous cleaning after use helps to avoid blockage.

61.

Which of the following may interfere with the results of the urea breath test and fecal antigen assay for *H. pylori* infection?

Antacids

Proton pump inhibitors

Anticoagulants

Histamine receptor antagonists.

Explanation:

Proton pump inhibitors and antibiotics may interfere with the results of both the urea breath test and the fecal antigen assay for H. pylori, so PPIs should be discontinued 1 to 2 weeks prior to testing and antibiotics at least 4 weeks prior. If patients cannot discontinue the medications, then serologic ELISA testing may be done, but it has only 80% accuracy compared to 95% accuracy for the breath and fecal tests. Endoscopic testing is usually not recommended for diagnosis, although, if done for other reasons, gastric biopsies may be taken to rule out or diagnose H. pylori.

62.

Which type of diet is usually recommended for those with chronic pancreatitis?

Low protein

Low carbohydrate

Low fat

Gluten free

Explanation:

A low-fat diet is usually recommended for those with chronic pancreatitis. Because production of pancreatic enzymes may be impaired, patients may also need to take pancreatic enzymes with meals. If insulin production is affected, then some may require treatment for diabetes with insulin and diet modified to restrict carbohydrates. Since about 45% of those with chronic pancreatitis suffer from alcohol abuse, restricting alcohol intake is critical, so some patients may require referral to substance abuse programs.

63.

For which complications is a patient who has had percutaneous transhepatic cholangiography most at risk?

Bleeding, peritonitis, and septicemia

Bile duct blockage and peritonitis

Intestinal perforation

Allergic reaction to contrast

Explanation:

A patient who has had percutaneous transhepatic cholangiography is most at risk for bleeding, peritonitis, and septicemia. During the procedure, a flexible needle is inserted into the liver, increasing risk of bleeding, in order to aspirate bile. A water-soluble contrast agent is injected, the fluoroscopy table tilted, and multiple x-rays taken. Aspirating as much contrast agent and bile as possible prior to removing the needle helps to reduce the risk of peritonitis. Antibiotics should be administered to reduce incidence of septicemia.

64.

The primary purpose of a transjugular intrahepatic portosystemic shunt (TIPS) is for which of the following?

Preventing hyponatremia

Preventing biliary blockage

Regulating electrolytes

Reducing portal hypertension

Explanation:

The primary purpose of a TIPS is to reduce portal hypertension by treating ascites. A cannula is threaded through the jugular vein to the portal vein and an expandable stent inserted to shunt fluid between the hepatic vein and portal circulation. TIPS is indicated for ascites that does not respond to more conservative treatments and helps to reduce sodium retention so that diuretics can act more effectively. Patients who will be referred for liver transplantation often have a TIPS while awaiting an organ.

65.

Which of the following is an appropriate intervention for pain in the right shoulder or scapula after laparoscopic cholecystectomy?

Ice pack to the area for 15 to 20 minutes hourly

Heating pad to the area for 15 to 20 minutes hourly

Range of motion exercises to the right arm

Opioid analgesia

Explanation:

Applying a heating pad to the right shoulder or scapula area after laparoscopic cholecystectomy for 15 to 20 minutes each hour may help to reduce pain caused by migration of carbon dioxide used for insufflation during the surgical procedure. Pain is usually not severe, so opioids are rarely indicated. Complications are rare, and this procedure is often done on an outpatient basis, but patients should be advised to report vomiting, loss of appetite, increasing pain, temperature, and abdominal distention.

66.

Following cholecystectomy, which of the following dietary instructions is appropriate for a patient who experienced preoperative fat intolerance?

Avoid fat in the diet for at least 6 weeks

Add fat into the diet with no restrictions

Add fat into the diet in small increments

Stay on a low fat diet indefinitely

Explanation:

After cholecystectomy, patients who had experienced preoperative fat intolerance should begin to add fat back into the diet in small increments to allow the body to adjust. In some cases, the liver may not produce enough bile to metabolize a high intake of fat and some fat restriction (40 to 50 g daily) may be indicated. Generally, patients are able to resume eating a normal diet shortly after surgery and should not exhibit signs of dietary intolerance, such as pain, distention, nausea, or vomiting.

67.

For colorectal screening, how often should a patient have a fecal occult blood test done?

Every 10 years

Every 5 years

When symptoms arise

Every year

Explanation:

Fecal occult blood—yearly: checks for blood in stool. Screening at age 50 with average risk and age 40 with increased risk:

- *Flexible sigmoidoscopy—every 5 years: scope to check for polyps or signs of cancer in rectum and lower third of colon. (Often done with fecal occult blood test.)*
- *Colonoscopy—every 10 years or as follow-up for abnormalities in other screening: longer flexible scope, usually with anesthesia, to check rectum and entire colon, remove polyps, do biopsies, and provide surveillance of inflammatory bowel disease.*

- *Double contrast barium enema—every 5 years: S-ray with contrast to visualize intestinal abnormalities.*

68.

Capsule endoscopy is used primarily to examine which part of the gastrointestinal tract?

Small intestine

Large intestine

Stomach

Esophagus

Explanation:

Capsule endoscopy is used primarily to examine the small intestine, which, because of its length, is otherwise difficult to assess as it cannot be reached with colonoscopy or esophagogastroduodenoscopy. The capsule, which is swallowed by the patient, contains a miniature camera and LEDs. The camera wirelessly transmits pictures to a receiver as it passes through the small intestine. The capsule is usually passed anally within 24 to 48 hours although there is a small risk of retention.

69.

When marking a nasoenteric tube for an adult patient prior to insertion for enteric feedings, what measurements are needed?

Nose to earlobe, earlobe to xiphoid process

Nose to earlobe, earlobe to xiphoid process, plus 6 inches (15 cm)

Nose to earlobe, earlobe to xiphoid process, plus 8 to 10 inches (20-25 cm)

Nose to earlobe, earlobe to xiphoid process, plus 12 to 14 inches (30 t0 38 cm)

Explanation:

A nasoenteric tube for an adult should be marked prior to insertion with measurements including the distance from nose to earlobe, plus earlobe to xiphoid process, plus 8 to 10 inches for enteric placement. Six inches are needed for gastric placement. The nasoenteric tube tip is initially placed in the stomach (verified by chest x-ray) and then moves into the small intestine through peristalsis over about 24 hours. Proper placement should be reconfirmed before every feeding by checking tube length measurement, aspirating and observing aspirant, and checking pH.

70.

Following lap-band bariatric surgery, total meal size should be restricted to which of the following?

One-half cup

Less than one cup

One and a half cups

Two cups

Explanation:

Following bariatric surgery, such as the lap band procedure, general guidelines advise limiting total meal intake to less than one cup, with 3 meals daily (containing protein and fiber) and two protein snacks. Patients should be advised to chew slowly and thoroughly and to eat nutrient-rich foods, but should avoid combining food and liquids. Liquids should be taken 90 minutes after meals and up to 15 minutes prior to a meal, but caloric liquids (such as alcoholic beverages and juices) should be avoided.

71.

Which of the following is the most serious complication of enteritis caused by *Escherichia coli,* such as type O157:H7?

Hemolytic uremic syndrome

Iron deficiency anemia

Severe diarrhea

High fever and seizures

Explanation:

Hemolytic uremic syndrome (HUS) is the most serious complication of enteritis caused by E. coli, such as type O157:H7. Children under 5 and the elderly are especially at risk. HUS is characterized by microangiopathic hemolytic anemia, thrombocytopenia, and renal failure. HUS may affect the neurological system, resulting in seizures, stroke, and coma. About half of those who survive HUS will develop chronic renal problems. Various organs, such as the heart and brain, may be affected because HUS damages the blood vessels and causes clots to form in capillaries and arterioles.

72.

A patient with Crohn's disease experiences small amounts of diarrhea, increasing abdominal distention and pain, vomiting, and cramping. Which of the following complications is the most likely

cause?

Abscess.

Fistula

Colon cancer

Intestinal obstruction

Explanation:

These symptoms are indicative of intestinal obstruction, which may be partial or complete. Obstructions are common because strictures develop in the bowel from repeated ulcerations of mucoid tissue. Chronic diarrhea is common, and some diarrhea may persist even with obstruction, depending on the location and degree of obstruction. Other common complications include abscesses, fistulas (especially from the small bowel to the skin), fissures, and malnutrition. Lesions associated with Crohn's disease are most common in the distal ileum and ascending colon.

73.

A patient receiving total parenteral nutrition (TPN) for inflammatory bowel disease should be monitored every 6 hours for which of the following?

Hemoglobin and hematocrit

Blood glucose level

Blood, urea, nitrogen (BUN)

Electrolytes

Explanation:

Total parenteral nutrition (TPN) is high in glucose, so patients should have blood glucose levels monitored every 6 hours to evaluate hyperglycemia. Some patients may require insulin during administration of parenteral nutrition. Symptoms of hyperglycemia may include increased thirst, increased urination, blurred vision, and lethargy. Some patients may experience a rebound hypoglycemia when TPN is discontinued. The goal of TPN is usually for the patient to gain about 0.5 kg daily. Once the patient's symptoms decrease and weight stabilizes, the patient is placed on oral elemental feedings.

74.

Which of the following is the most effective method of monitoring small changes in abdominal ascitic fluid?

Observing patient's abdomen while patient is in supine position

Percussing abdomen

Measuring abdominal girth and weighing daily

Assessing abdominal fluid wave

Explanation:

The most effective method for monitoring small changes in abdominal ascitic fluid is daily measuring of abdominal girth and weighing. This should be done routinely to assess the effectiveness of treatment. A large fluid accumulation may be indicated by bulging flanks with the patient in supine position. Abdominal percussion may also identify ascites, but assessing small increases or decreases is difficult. An abdominal fluid wave is usually not noted until there is a large accumulation of fluid.

75.

Considering placement of a permanent colostomy, which anatomical position is most likely to result in semi-soft, mushy stool?

Ascending colon

Transverse colon

Descending colon

Sigmoid colon

Explanation:

A permanent colostomy in the descending colon is most likely to result in semi-soft, mushy stool. A colostomy in the ascending colon results in liquid stool, as little absorption has taken place as liquid stool enters the colon from the small intestine. A transverse colostomy results in semi-liquid, somewhat mushy stool. Because the sigmoid colostomy is directly above the rectum, most excess fluid has been absorbed by the proximal colon, so stool tends to be solid.

76.

What initial cleaning of an endoscope should be completed in the procedure room?

Testing for leakage

Flushing all channels with enzymatic detergent

Rinsing exterior and all channels with clear water

Wiping exterior and flushing the suction channel with water

Explanation:

Upon completion of an endoscopic procedure, before the endoscope is removed from the procedure room and taken to the cleaning area, using standard precautions the exterior should be wiped down with a gauze pad to remove discharge and debris (feces, mucus, blood) and then the suction channel and water channel flushed with water until the water runs clear. Once in the cleaning area, procedures will vary depending on whether manual cleaning is completed or automated but usually begin with leak testing and cleaning and flushing with enzymatic detergent prior to placing in high-level disinfectant.

77.

Diabetics well controlled on insulin should make which of the following modifications in insulin dosage on the morning of a scheduled endoscopic procedure?

Omit dosage

Take half a usual dose

Take usual dose

Delay dosage until after procedure

Explanation:

Diabetic patients who are well controlled on insulin are usually advised to take half of their usual dosage on the morning of a scheduled endoscopic procedure. Diabetics who take oral medications to control diabetes should omit the dosage for that morning. Glucose levels should be monitored when the patient arrives for the procedure and the physician notified if the patient is hypoglycemic (<60 mg/dL) or hyperglycemic (>200 mg/dL). IV solutions administered may

depend on blood glucose level. Those who are hypoglycemic may receive 50% glucose solution, and those who are hyperglycemic, NS.

78.

Which type of sedation is usually indicated for flexible sigmoidoscopy?

Minimal

Moderate/conscious sedation

Deep sedation

General anesthesia

Explanation:

Patients undergoing sigmoidoscopy (rigid or flexible) usually require no or minimal sedation, although patients with low pain threshold or severe anxiety may need moderate/conscious sedation. Moderate sedation (a narcotic such as fentanyl and a benzodiazepine such as midazolam) is usually indicated for endoscopic procedures, such as upper endoscopy and colonoscopy. Procedures that are complicated or prolonged, such as ECRP, may require deep sedation with the same drugs as well as droperidol or propofol. General anesthesia is generally indicated only for complex and surgical procedures because of increased risks associated with general anesthesia.

79.

Which of the following increases the risk of aspiration for a patient receiving NG feedings?

Head elevated at 45 degree

Continuous feeding

Young age

History of diabetes mellitus

Explanation:

A history of diabetes mellitus, major abdominal/thoracic trauma, and neurological disorders increases the risk of aspiration for a patient receiving tube feedings. Patients should be positioned with the head elevated to 45 degrees if possible and supine position avoided. Continuous feedings pose less risk than intermittent or bolus feedings, and the older patient is at greater risk than the younger. Metoclopramide may be given to increase the rate of gastric emptying. The tube should be checked for correct position at every feeding or every 4 to 6 hours if feedings are continuous.

80.

When inserting a small-bore nasogastric tube, which of the following is the best method to verify placement of the tube in the stomach?

Aspirating gastric contents and checking pH

Injecting air and auscultating the gastric region

Taking a chest x-ray

Taking an abdominal x-ray

Explanation:

The best method to verify placement of a small-bore NG tube is with a chest x-ray. While aspirating fluid may indicate gastric placement, the tip may be in the esophagus. A gastric fluid pH less than 4 usually indicates that the tube is in the stomach, but some medications, such as proton pump inhibitors, may alter pH. Injecting air and auscultating may be inaccurate because the air sounds in the bronchial tree sound similar, and NG tubes can easily enter the trachea and a bronchus. Misplacement into the bronchus may not be evident on abdominal x-ray.

81.

Flumazenil should be available as a reversal agent for which of the following drugs commonly used for endoscopic sedation?

Fentanyl

Droperidol

Midazolam

Propofol

Explanation:

Flumazenil is a reversal agent for benzodiazepines, such as midazolam and diazepam. Flumazenil is usually given in a dose of 0.2 mg over 15 seconds and can be repeated every minute to a total of 1 mg and then at 30 minute to 60 minute intervals because the action of flumazenil is shorter than that of benzodiazepines. Therefore, patients must be monitored for at least 2 hours after administration to determine if further dosage is required. Naloxone should also be available as a reversal agent for opioids, such as fentanyl and meperidine.

82.

Which of the following is the best positioning for a patient who is going to undergo a paracentesis?

Lying supine with bed flat

Side-lying

Fowler's position

Sitting upright on side of bed or in a chair

Explanation:

The best positioning for a paracentesis is for the patient to sit upright on a chair or on the side of the bed because this causes the fluid to accumulate in the lower and anterior abdomen, making drainage more effective. Patients who are confined to bed may be placed in the Fowler's position. Fluid should drain by gravity. The patient must be carefully monitored and VS taken frequently as vascular collapse/hypovolemia may occur as the body compensates for the fluid loss by shifting fluid from the vascular system to the peritoneal cavity.

83.

When using the air insufflation method for bedside postpyloric placement of an enteral feeding tube, which of the following is the best procedure?

Inject 350 mL of air and place patient on the right side

Administer metoclopramide, 10 mg 10 minutes prior to insertion of tube, followed by injecting 350 mL of air and placing patient on right side

Inject 350 mL of air and place patient on the left side

Administer an opioid and metoclopramide, 10 mg 10 minutes prior to insertion of tube, followed by injecting 350 mL of air and placing patient on right side

Explanation:

The method that is the most successful for postpyloric placement of enteral feeding tubes is to inject about 350 mL of air and place the patient on the right side. An alternate method is to administer the prokinetic metoclopramide to stimulate peristalsis and then to position the patient on the right side. Combining both methods is not indicated. The air insufflation method usually results in faster placement, especially if the patient has received opioids, which tend to slow peristalsis.

84.

When assisting with upper GI endoscopy, which of the following is the best method to prevent aspiration?

Position patient properly

Pre-medicate patient with antiemetic

Ensure patient has been NPO for at least 12 hours prior to procedure

Suction all accumulated saliva or emesis during the procedure

Explanation:

During an upper GI endoscopy procedure, it's important to aggressively suction all accumulated saliva and emesis to prevent aspiration. Pre-medicating with an antiemetic is usually not recommended, and positioning of the patient may have little effect. Recommendations for NPO status prior to endoscopic procedures vary slightly from 6 hours to 8 hours to ensure the stomach has emptied. While the endoscopic procedure may induce vomiting, 12 hours of NPO status is more than required.

85.

A patient with stage 2 gastric cancer refuses all treatment because of religious convictions. Which of the following is the most appropriate action?

Provide the patient with facts about the disease, treatments, and prognosis

Ask family members to intervene

Remind the patient that he will die without treatment

Refer to a psychologist

Explanation:

Patients have a right to refuse treatment for religious or other personal reasons, so the most appropriate action is to simply provide the patient with factual information about the disease, treatments, and prognosis in a neutral manner, without trying to coerce or frighten the patient. In some cases, patients may change their minds when presented with information, but the nurse should remain supportive regardless of the patient's decision. Asking the family to intervene is not appropriate and refusal of treatment alone does not suggest the need for referral to a psychologist.

86.

A patient complains of increasing abdominal pain and has been passing 3 to 4 sticky, black foul-smelling stools for 4 days and exhibits postural hypotension, hemoglobin of 9.2 mg/dL, and hematocrit of 28%. Which of the following should the nurse suspect?

Iron deficiency anemia and intestinal perforation

Hemolytic anemia and gastritis

Iron deficiency anemia and upper GI bleeding

Iron deficiency anemia and lower GI bleeding

Explanation:

If a patient complains of increasing abdominal pain and has been passing 3 to 4 sticky foul-smelling stools for 4 days, exhibits postural hypotension, and has a hemoglobin of is 9.2 mg/dL (92 mmol/L) and hematocrit 28%, the nurse should suspect iron deficiency anemia with upper GI bleeding. The anemia occurs from blood loss (low hemoglobin and hematocrit with normal MCV) and the melena is from blood in the upper GI tract that is exposed to digestive enzymes. The BUN is often elevated because of increased absorption of blood.

87.

A patient has been prescribed antibiotic therapy and probiotics to help to maintain intestinal flora. Which of the following statements BEST describes the appropriate administration?

The antibiotic and the probiotics should be taken simultaneously

The antibiotic and the probiotics should be taken at least 2 hours apart

The probiotics should be started only after completing the antibiotic

The probiotics should be taken for 2 days before beginning the antibiotic

Explanation:

If a patient has been prescribed antibiotic therapy and probiotics to help to maintain intestinal flora, the antibiotic and the probiotics at least 2 hours apart because the antibiotic can kill not only the bacteria already present in the intestines but also the bacteria in the probiotics. Probiotics that contain Saccharomyces boulardii also may help to reduce toxins produced by Clostridium difficile. Patients who are severely immunocompromised and taking long-term

broad-spectrum antibiotics have developed sepsis from probiotics, so probiotics should be used with care in these patients.

88.

Unless otherwise specified by manufacturer, multi-use vials that have been accessed and used should be discarded within which of the following time periods?

One week

14 days

28 days

60 days

Explanation:

Unless otherwise specified by manufacturer, multi-use vials that have been accessed and used should be discarded within 28 days. Multi-use vials contain preservatives but can become contaminated with bacteria and provide no protection against viruses. Multi-use vials should be reserved for only one patient whenever possible and should be maintained in a separate space from the treatment area to prevent inadvertent contamination. A new needle and syringe should be used each time the vial is accessed.

89.

The nurse hears a patient's physician complaining that a patient is "difficult and impatient," and the nurse tells the physician that the patient is very frightened and acting defensively. Which of the followings aspects of care is the nurse exhibiting?

Advocacy

Patient equality

Human dignity preservation

Caring practice

Explanation:

If the nurse hears a patient's physician complaining that a patient is "difficult and impatient," and the nurse tells the physician that the patient is very frightened and acting defensively, the aspect of care that the nurse is exhibiting is advocacy. The nurse is speaking up in defense of the patient and acting for the patient's benefit in trying to help the physician have a more balanced view of the patient's behavior.

90.

Imaging shows that a patient has an intestinal obstruction from a cancerous lesion at the duodenum. The patient is MOST likely to exhibit which of the following signs and symptoms?

Copious emesis of undigested food, succession splashing bowel sounds, but absence of abdominal pain or distention

Moderate emesis, hyperactive bowel sounds, and upper abdominal pain

Moderate abdominal distention, colicky cramping, and hyperactive bowel sounds

Marked abdominal distention, some emesis (late), borborygmi, and colicky pain in central and lower abdomen

Explanation:

If imaging shows that a patient has an intestinal obstruction from a cancerous lesion at the duodenum, the signs and symptoms likely include copious emesis of undigested food (with no evidence of bile) after eating, succession splashing bowel sounds in the left upper quadrant but generally absence of abdominal pain or distention. If the condition persists untreated, the patient may show signs of dehydration and muscle wasting. The stomach may begin to dilate and excessive peristaltic action may be evident.

91.

Which of the following herbal preparations should the nurse advise a patient to avoid when taking immunosuppressant drugs?

Melatonin

St. John's wort

Chamomile

Curcumin

Explanation:

The nurse should advise a patient to avoid taking St. John's wort when taking immunosuppressant drugs. St. John's wort is commonly used to treat depression and anxiety; however, it may interact with many different drugs, so if patients indicate an interest in taking the herbal preparation, the nurse should carefully review the patient's list of drugs. St. John's wort should also not be taken with antibiotics, birth control pills, antidepressants, warfarin, or anticonvulsants.

92.

If two grounding pads (AKA return electrodes) are utilized during a procedure involving electrical cautery, which of the following is a correct placement?

Upper thigh and lower thigh

Left thigh and right calf

Right upper thigh and left upper thigh

Anterior thigh and posterior thigh

Explanation:

If two grounding pads (AKA return electrodes) are utilized during a procedure involving electrical cautery, a correct placement is the right upper thigh and the left upper thigh. Grounding pads should be placed at a distance from the surgical site and, if two are utilized, they should be placed equidistantly and symmetrically and never on just one limb as this increases the risk of burns. Using two pads divides the current and reduces risk of burns. The pads must be fully in contact with the skin and placed according to manufacturer's directions.

93.

When reviewing medications for a patient with cirrhosis, the nurse must consider that the liver disease may MOST affect which of the following?

Absorption

Metabolism

Distribution

Excretion

Explanation:

When reviewing medications for a patient with cirrhosis, the nurse must consider that the liver disease may affect drug metabolism, which is the process of biotransformation. While some metabolism occurs in the skeletal muscles, lungs, kidneys, plasma, and intestines, most metabolism occurs in the liver through the action of microsomal enzymes (AKA cytochrome P-450 enzymes). These enzymes target primarily lipophilic drugs, which comprise the majority of drugs in common use.

94.

Ensuring that a patient has given informed consent and understands his or her rights and all of the risks and benefits of a procedure or treatment supports which of the following ethical principles?

Beneficence

Nonmaleficence

Justice

Autonomy

Explanation:

Autonomy is the ethical principle that the individual has the right to make decisions about his/her own care, based on informed consent and understanding of risks and benefits. Beneficence is an ethical principle that involves performing actions that are for the purpose of benefitting another person. Nonmaleficence is an ethical principle that means healthcare workers should provide care in a manner that does not cause direct intentional harm to the patient. Justice is the ethical principle that relates to the distribution of the limited resources of healthcare benefits to the members of society.

95.

A patient with inflammatory bowel disease has periodic bouts of severe diarrhea but is unsure of the cause. Which of the following should the nurse advise the patient to do to try to resolve the problem?

Maintain a food diary

Avoid all milk products

Increase fat in diet

Increase fiber in diet

Explanation:

If a patient with inflammatory bowel disease (IBD) has bouts of severe diarrhea but is unsure of the cause, the nurse should advise the patient to maintain a food diary, writing down all food and fluid intake to see if a pattern emerges. While many patients with IBD are lactose intolerant, testing can show if this is the problem. Increasing fat or fiber in the diet may aggravate the diarrhea.

96.

Absorption of nutrients from the small bowel is often impaired in older adults because of which of the following?

Age-related cellular mutations

Decreased muscular contractility

Narrowing and lengthening of villi

Broadening and shortening of villi

Explanation:

Absorption of nutrients from the small bowel is often impaired in older adults because of broadening and shortening of villi, which decreases the surface area available. Additionally, levels of some enzymes decrease. For example, lactase levels may fall, and this can cause increased lactose intolerance. When fecal material moves slowly through the bowels, bacterial overgrowth may occur, and this can affect absorption of nutrients because the bacteria require nutrients and can also cause diarrhea, which interferes with absorption.

97.

A 72-year-old patient has 3 polyps removed during a routine colonoscopy. Which of the following types of polyps are precancerous?

Epithelial hyperplastic

Adenomatous

Inflammatory

Submucosal (fibroma)

Explanation:

If a 72-year-old patient has polyps removed, the type of polyp that is precancerous is the adenomatous polyp, which can include tubular adenomas, tubular villous adenoma, and villous adenoma. Polyps associated with hereditary polyposis syndromes (familial adenomatous polyposis) are also precancerous. Patients with precancerous polyps are generally advised to have routine follow-up colonoscopies every 3 years because of increased risk of colon cancer.

98.

The nurse is educating a patient who is to be discharged after surgery to remove a cancerous lesion of the colon and create a colostomy. Which of the following foods may cause a noticeable odor?

Green beans, raw fruits, spicy foods, and spinach

Popcorn, seeds, raw vegetables, and corn

Fish, eggs, onions, broccoli, and cabbage

Beans, carbonated beverages, strong cheeses, and sprouts

Explanation:

The nurse is educating a patient who is to be discharged after surgery to remove a cancerous lesion of the colon and create a colostomy. The nurse advises the patient that some foods may cause:

- *Odor: fish, eggs, onions, broccoli, asparagus, and cabbage.*
- *Gas: beans, carbonated beverages, strong cheeses, beer, and sprouts.*
- *Diarrhea: beer, green beans, coffee, raw fruits, spicy foods, and spinach.*
- *Obstruction: popcorn, seeds, raw vegetables, nuts, and corn.*

99.

Which of the following is a reversal agent for excessive sedation of a patient who has received a benzodiazepine?

Atropine

Romazicon (Flumazenil®)

Naloxone (Narcan®)

N-acetylcysteine

Explanation:

Romazicon (Flumazenil®) is a reversal agent for excessive sedation of a patient who has received a benzodiazepine although it does not reverse respiratory depression. Romazicon is administered IV with a beginning dose of 0.2 mg over 30 seconds with repeat doses at one-minute intervals as needed. The second dose is 0.3 mg and the third and subsequent doses are 0.5 mg. Epinephrine is used for emergent treatment of asystole, VF, and PEA; naloxone, for opioids; and N-acetylcysteine, for acetaminophen overdose.

100.

Following a colonoscopy with removal of polyps, a patient developed abdominal pain with elevated temperature, WBC count and C-reactive protein. Which of the following interventions does the nurse anticipate initially?

Abdominal CT

Repeat colonoscopy

Antibiotic therapy

Exploratory laparotomy

Explanation:

If, following a colonoscopy with removal of polyps, a patient developed abdominal pain with elevated temperature, WBC count, and C-reactive protein, the patient should have an abdominal CT to differentiate between thermal injury causing perforation and one causing post-polypectomy electrocoagulation syndrome (transmural burn without perforation). Symptoms for

both are similar initially, but post-polypectomy electrocoagulation syndrome heals with conservative treatment while perforation requires surgical repair.

101.

If a patient develops an infection with a multi-drug resistant organism (MDRO), the nurse anticipates that the patient's history will show which of the following?

Auto-immune disorder

Pneumonia

Diabetes mellitus

Prior antibiotic use

Explanation:

If a patient develops an infection with a multi-drug resistant organism (MDRO), the nurse anticipates that the patient's history will show previous antibiotic use as this is a factor in almost all cases. Other risk factors include prolonged hospitalization and intraabdominal surgery. MDRO infections are increasingly resistant to 2 or more antibiotics, including vancomycin. Restriction of vancomycin use alone has not proven successful in controlling development of MDRO because multiple other antibiotics are implicated.

102.

The standard triple therapy for *H. pylori*-associated peptic ulcer disease includes a proton pump inhibitor BID, clarithromycin 500 mg BID, and which of the following?

Bismuth subcitrate potassium 140 mg qd

H-2 receptor antagonist

Amoxicillin 1 g BID

Misoprostol 200 mcg QID

Explanation:

The standard triple therapy for H. pylori-associated peptic ulcer disease include a proton pump inhibitor BID, clarithromycin 500 mg BID, and amoxicillin 1 g BID. Metronidazole 500 mg BID may be substituted for amoxicillin for those with penicillin allergy. Treatment is usually continued for 10 to 14 days. Using two antibiotics is especially important because of increasing resistant strains. The standard triple therapy is most commonly utilized, but a standard quadruple therapy and sequential quadruple therapy may also be considered.

103.

When lifting an item, which of the muscles should be used?

The muscles in the legs

The muscles in the arm

The muscles in the lower back

The muscles in the upper back and shoulders

Explanation:

When lifting an item, the muscles in the legs should be used. The nurse should stand close to the item or person being lifted and use the leg muscles to support weight rather than the arms

or back and should stoop down rather than bending over. If items or people are heavy, then lift devices should be used rather than lifting manually. If items are up high, the nurse should avoid stretching but should use a step stool or gripping device to reach the item.

104.

When palpating a patient's abdomen, a positive Murphy's sign (sudden holding of breath with RUQ palpation) MOST LIKELY indicates which of the following?

Appendicitis

Cholecystitis

Choledocholithiasis

Duodenal ulcer

Explanation:

When palpating a patient's abdomen, a positive Murphy's sign (sudden holding of breath with RUQ palpation) indicates cholecystitis. Murphy's sign is usually negative with choledocholithiasis although cholecystitis is most often caused by gallstones that obstruct the flow of bile, causing the gallbladder to swell and become inflamed. However, cholecystitis may also result from tumors or impaired circulation (common with diabetics). Typical symptoms include nausea and vomiting and severe middle or RUQ abdominal pain.

105.

If a patient is receiving methotrexate for maintenance treatment of Crohn's disease, which laboratory tests should be routinely monitored?

CBC and renal function tests

CBC and sed rate

CBC and renal and liver function tests

CBC and pancreatic enzymes

Explanation:

If a patient is receiving methotrexate for maintenance treatment of Crohn's disease, laboratory tests that should be routinely monitored include the CBC and renal (creatinine and BUN) and liver function tests. FDA guidelines advise testing at least every 1 to 2 months during therapy, but some authorities recommend testing every 2 to 4 weeks during the first few months of treatment. Adverse effects of methotrexate include renal failure, portal fibrosis, myelosuppression, headache, and rash.

106.

A patient presents with symptoms consistent with diverticulosis. Which of the following imaging techniques does the nurse anticipate will be used to confirm the diagnosis?

Colonic contrast studies

Colonoscopy

Abdominal CT

Abdominal ultrasound

Explanation:

If a patient presents with symptoms consistent with diverticulosis, the imaging technique that will likely be used to confirm the diagnosis is colonoscopy, which allows biopsy to rule out other disorders and allows visualization of involvement. Ultrasound shows non-specific abnormalities and cannot conclusively diagnose diverticulitis, colonic contrast studies, such as barium enema, have limited value because most diverticula are extraluminal, and it increases the risk of perforation if peritoneal irritation is present.

107.

A patient comes to the emergency department with slight jaundice and complaining of clay-colored stools and flu-like symptom. Which of the following are the primary tests that screen for suspected hepatitis?

ALT and AST

CBC and differential

Bilirubin and LDH

Total protein and serum ammonia

Explanation:

The primary tests that screen for hepatitis include alanine transaminase (ALT) (normal 5-35 units) and aspartate transaminase (AST) (normal 10-40 units). These are liver enzymes that increase with inflammation and damage to hepatic cells. ALT is more specific than AST and usually shows a higher increase. ALT may increase to 10 times normal with acute infection and 2 to 3 times normal with chronic infection, so ALT is used most often to monitor treatment. However, many drugs can affect ALT results, so medication reconciliation is essential.

108.

Environmental surfaces have been implicated in transmission of which of the following healthcare-associated pathogens?

Clostridium difficile only

Clostridium difficile and norovirus only

Methicillin-resistant Staphylococcus aureus only

Clostridium difficile, norovirus, and Staphylococcus aureus/MRSA

Explanation:

Healthcare-associated infections kill almost 100,000 people each year in the United States, and environmental contamination is a factor in 20% to 40% of HAIs, with pathogens carried from environmental surfaces on the hands of healthcare workers. Pathogens that are of increasing concern are norovirus, Clostridium difficile, Acinetobacter species, MRSA and vancomycin-resistant Enterococcus. Patients admitted to rooms previously occupied by patients infected with these pathogens are at increased risk because the agents are capable of surviving for prolonged periods in the environment.

109.

Under the Spaulding system, which of the following is classified as a semi-critical item when considering methods for sterilization/disinfection?

Surgical instrument

Prosthetic implant

Endoscope

Blood pressure cuff

Explanation:

The Spaulding system of sterilization and disinfection:

- ***Critical:*** *Contact sterile tissue or the vascular system, including surgical instruments, IV catheters, and prosthetic implants. Contamination poses a high risk of infection, so these items must be sterile.*
- ***Semi-critical:*** *Contact mucous membranes or non-intact skin, including endoscopes, diaphragm fitting rings, and laryngoscope blades. These tissues tend to be more resistant to spores, so these items can be disinfected with high-level disinfectants.*
- ***Non-critical:*** *Contact intact skin only, including patient care items such as blood pressure cuffs and bedpans and environmental surfaces. Decontamination can be done at point of care.*

110.

Following an esophagoscopy to obtain a biopsy of the thoracic esophagus, which of the following symptoms MOST indicates the need for emergent care for perforation?

Chest pain, dysphagia, and tachycardia

Mild cough and sore throat

Nausea and vomiting

Local discomfort but no systemic response

Explanation:

Following an esophagoscopy to obtain a biopsy of the thoracic esophagus, chest pain, dysphagia, and tachycardia are indications of the need for emergent care for perforation. Onset of fever is often rapid, and Hamann's sign (crunching, rasping precordial sound coinciding with the heartbeat) is positive because of leakage of air to the mediastinum. Perforation is usually

confirmed radiologically although CT or endoscopy may be necessary if the perforation cannot be seen on x-ray.

111.

Following removal of the esophagogastroduodenoscopy tube, the patient begins to cough violently and appears cyanotic. Which of the following is the MOST appropriate initial intervention?

Turn patient onto one side

Suction airway and increase supplemental oxygen

Reverse sedation

Encourage deep breathing and coughing

Explanation:

If, following removal of the esophagogastroduodenoscopy tube, the patient begins to cough violently and appears cyanotic, the most appropriate initial intervention is to suction the airway and increase supplemental oxygen. These symptoms are consistent with aspiration of gastric fluids, which can lead to aspiration pneumonia. The patient needs an x-ray and antibiotic therapy. Patients with gastric bleeding, gastric obstruction, excessive sedation, and older adults are especially at risk of aspiration during endoscopic procedures.

112.

Which of the following is the CDC-recommended method of routine hand hygiene?

Wearing gloves

Washing with soap and water

Using alcohol-based hand rubs

Using chlorhexidine scrubs

Explanation:

The CDC recommended method of routine hand hygiene is now using alcohol-based hand rubs. This can be done relatively quickly, and compliance tends to be better than washing hands with soap and water. However, if the hands are visibly soiled or have come into contact with bodily fluids, then they must be thoroughly washed with soap and water to remove all residue. Additionally, if the healthcare provider is exposed to spore-producing microbes, such as B. anthracis or C. difficile, or norovirus, then washing with soap and water is required.

113.

In regards to reprocessing of single-use devices, the CMS recommends which of the following?

No reprocessing

In-house reprocessing

Reprocessing of class I devices only

Use of third-party reprocessors

Explanation:

In regard to reprocessing of single-use devices, the CMS recommends use of third-party reprocessors because of the stringency of the regulations by the FDA for reprocessing and the

type of equipment needed. The trend is toward increased reprocessing of single-use devices because of the costs of medical care. The FDA categorizes medical devices as class I, II, or III with class I posting the lowest risk to the patient and class III the highest. Requirements for reprocessing of class III devices are more stringent than for class I or II.

114.

Which of the following is the incubation period for foodborne illness caused by *Salmonella* spp.?

1 to 6 hours

1 to 3 days

12 to 48 hours

28 days

Explanation:

The incubation period for foodborne illness caused by Salmonella spp. is one to three days, and the infection persists for four to seven days. Symptoms include fever, abdominal cramping, and diarrhea. S. typhi and S. paratyphi result in more severe symptoms and typhoid fever. Infection often results from contaminated poultry, eggs, unpasteurized milk products or juices, and raw fruits and vegetables. Outbreaks may occur if the water supply becomes contaminated. Antibiotics are usually contraindicated except for S. typhi and S paratyphi.

115.

Constipation is usually defined as which of the following?

Fewer than 7 stools per week

Fewer than 5 stools per week

Fewer than 3 stools per week

Fewer than 2 stools per week

Explanation:

Constipation is usually defined as fewer than three stools per week although there is considerable individual variation. Some people have two to three stools daily while others only defecate every two or three days, so it's necessary to determine the normal pattern for a patient when assessing constipation. Constipation is also sometimes described in terms of stool consistency (hard, small) and difficulty defecating (need to strain, splinting). Constipation is most common in patients in their 60's, with rates about 5 times those of younger adults.

116.

Which of the following is MOST indicated for an inactive patient who has been taking laxatives long-term to treat chronic bouts of constipation and fecal impaction?

Stool softeners

High fiber diet

Exercise program

Bowel retraining

Explanation:

Bowel retraining *strategies include:*

- *Keeping a bowel diary for a week.*
- *Modifying diet and fluid intake to assure normal stool consistency, including increased fiber and fluids, eating meals at scheduled times, and avoiding foods that increase bowel dysfunction.*
- *Establishing a schedule for defecation, preferably at the same time each day and about 20-30 minutes after a meal.*
- *Practicing Kegel exercises.*
- *Using a stimulus to promote defecation, such as enemas, suppositories, or laxatives in the beginning, with a goal to decrease such use. Digital stimulation or hot drinks may be used.*
- *Keeping a record of stool consistency and evacuation.*

117.

A patient is receiving enteral feedings. Which of the following is MOST LIKELY to contribute to diarrhea?

Cold formula

Warm formula

Hypo-osmolar formula

Continuous feeding

Explanation:

If a patient is receiving enteral feeding, administration of cold formula is most likely to contribute to diarrhea. Other causes of diarrhea include rapid infusion and bolus feedings, and hyperosmolar formula. If diarrhea occurs, the patient's feedings should be re-evaluated (rate slowed, change in formula) and fluid balance and electrolyte status assessed. Medications should be assessed and pro-motility medications avoided as they may contribute to diarrhea.

118.

When undergoing a bowel transit time test, how soon after ingesting markers should the patient return for radiographs?

24 hours

2 days

4 days

5 days

Explanation:

For the bowel transit time test, patients take capsules that contain radiopaque markers and then continue with their regular diet. They return 5 days later for radiographs. Typically, about 80% of the markers are excreted in 5 days, so if fewer than 20% remain, then transit time is faster than normal and more than 20%, slower than normal. This test results are affected by the types of foods and amount of liquids consumed, so results must be evaluated in terms of diet and other factors.

119.

A patient has developed acne, weight gain, mood swings, and hyperglycemia. Which of the following drugs is MOST LIKELY to cause these symptoms?

Balsalazide (Aminosalicylate)

Azathioprine (Immunomodulator)

Prednisone (Corticosteroid)

Infliximab (Biologic)

Explanation:

If a patient has developed acne, weight gain, mood swings, and hyperglycemia, the most likely cause is prednisone, a corticosteroid. Corticosteroids are prescribed to suppress the immune response and reduce inflammation, but have numerous adverse effects so they are usually used for short periods rather than extended use. Other possible adverse effects include insomnia, hypertension, osteoporosis, moon facies, glaucoma, cataracts, and increased risk of infection.

120.

Which of the following BEST describes the action of omeprazole (Prilosec®)?

Suppresses secretion of gastric acids

Speeds gastric emptying

Slows intestinal motility

Neutralizes gastric secretions

Explanation:

Omeprazole (Prilosec®), a proton pump inhibitor, suppresses secretion of gastric acids and is used primarily to treat GERD and erosive esophagitis. Omeprazole should be taken on an empty stomach to be most effective. Adverse effects include stomach pain, nausea and vomiting, diarrhea, flatulence, and headache. In rare cases, patients may develop severe myopathy. Drug interactions may occur with methotrexate, clopidogrel, and St. John's wort.

121.

A 76-year-old female ate *E. coli* (O157:H7) contaminated vegetables and developed abdominal cramps and non-bloody diarrhea for 48 hours after which the diarrhea became bloody for 4 days. The patient is MOST at risk for developing which of the following?

Intestinal necrosis

Small bowel obstruction

Intestinal perforation

Hemolytic uremic syndrome

Explanation:

If a 76-year-old female ate E.coli (O157.H7) contaminated vegetables and developed abdominal cramps and non-bloody diarrhea that persisted for 48 hours after which the diarrhea became bloody for 4 days, the patient is at risk for developing hemolytic uremic syndrome (HUS), which can lead to renal failure. Children under 5 and older adults are most likely to develop HUS. HUS is characterized by microangiopathic hemolytic anemia, thrombocytopenia, and acute renal failure.

122.

Which of the following is the MOST common cause of fecal incontinence?

Chronic diarrhea

Fecal impaction

Neurological impairment

Laxative abuse

Explanation:

While all of these are important factors in fecal incontinence, the most common cause is fecal impaction, which may result from chronic constipation. Chronic constipation increases pressure on the anal sphincters and can damage nerves and muscles. Additionally, transit time through the large intestine is often slowed with constipation, increasing fluid absorption and contributing to impaction. When stool becomes impacted, the body compensates by increasing fluid in the stool above the impaction, resulting in diarrhea stool leaking about the impaction and through the damaged sphincters.

123.

In a bowel diary, the Bristol Stool Form Scale is used for which of the following?

To describe the frequency of incontinence

To differentiate between defecation and incontinence

To describe the amount of stool

To describe the type of stool

Explanation:

The Bristol Stool Form has descriptions and pictures to help people identify the correct type of stool.

Type 1: Separate small hard lumps of stool that are difficult to pass.

Type 2: Sausage-shaped lumpy stool.

Type 3: Sausage-shaped and lumpy but with cracks on the surface.

Type 4: Long, smooth, soft, snake-like stool.

Type 5: Soft blobs of stool that are easily passed and have clear-cut edges.

Type 6: Mushy, fluffy pieces of stool with uneven ragged edges.

Type 7: Watery stool that is entirely liquid.

The bowel diary should include the time of each event (defecation, incontinence, and flatus), type of stool, amount, activity at the time of incontinence, intake of food and drinks, and all medications.

124.

A patient has been dieting but complains that she has developed chronic diarrhea. Which of the following items recorded in the patient's food diary is MOST LIKELY to cause diarrhea?

Dietetic hard candy

Broccoli

Cottage cheese

Hard-boiled eggs

Explanation:

If a patient has been dieting but complains that she has developed chronic diarrhea, the item on the food log that is most likely the cause is dietetic hard candy. Dietetic candy, diet soda, sugarless gum, and other sugarless products contain sweeteners (such as sorbitol, sucralose, and xylitol) that often cause diarrhea, abdominal distention, and gas, especially if taken in large amounts. The patient should stop eating the dietetic candy until the diarrhea stops and then eat in only small amounts to tolerance.

125.

A patient has prescriptions from four different doctors and admits to taking additional “pills” but can’t recall which ones and gives conflicting information regarding the dosage and frequency of the different medications. Which of the following do these findings MOST LIKELY indicate?

Dementia

Overdose

Polypharmacy

Drug-seeking behavior

Explanation:

If a patient has prescriptions from four different doctors and admits to taking additional “pills” but can’t recall which ones and gives conflicting information regarding the dosage and frequency of the different medications, the nurse should recognize these findings as an indication of polypharmacy. Polypharmacy occurs when patients take too many drugs, some of which may be duplicates or may interact with other drugs, especially when prescriptions are from multiple physicians.

126.

Which of the following is the MOST common cause of upper GI bleeding?

Neoplasm

Peptic ulcer disease

Post-procedural trauma

Esophageal varices

Explanation:

The most common cause of upper GI bleeding is peptic ulcer disease (about 50%) while the most common cause of lower GI bleeding is diverticulosis (about 50%). Symptoms of upper GI bleeding include epigastric pain and hematemesis. Melena may occur with both upper and lower GI bleeding but is most common with upper GI. Treatment varies depending on the cause, but those who are hemodynamically unstable require immediate resuscitation to maintain adequate blood pressure while the patient is being typed and cross-matched for transfusions.

127.

The nurse is teaching a patient to care for a PEG feeding tube. Which of the following should the nurse advise the patient to do to avoid dumping syndrome?

Administer refrigerated formula

Increase rate of instillation

Stay in semi-Fowler's position for one hour after feedings

Increase volume of water used to flush tube before and after feedings

Explanation:

When teaching a patient to care for a PEG feeding tube, the gerontological nurse should tell the patient that, in order to prevent dumping syndrome, the patient should stay in semi-Fowler's position for one hour after feedings as this slows transit time by decreasing the force of gravity. Additionally, formula should be instilled slowly and at room temperature and small volumes of water used to flush the tubing before and after feedings because diluted formula has a faster transit time. Continuous drip also results in less incidence of dumping syndrome than bolus administration.

128.

The Health Insurance Portability and Accountability Act (HIPAA) regulates which of the following?

Rights of the individual related to privacy of health information

Transfer of patients from one facility to another

Medical trials

Workplace safety

Explanation:

The Health Insurance Portability and Accountability Act (HIPAA) addresses the rights of the individual related to privacy of health information. The nurse must not release any information or documentation about a patient's condition or treatment without consent, as the individual has the right to determine who has access to personal information, which is considered protected health information (PHI), including health history, condition, treatments in any form, and any documentation. Personal information can be shared with spouse, legal guardians, and those with durable power of attorney.

129.

A 69-year-old patient is learning to care for a colostomy but is quite tense and becomes confused about the sequence of actions required. Which of the following is the MOST appropriate teaching strategy?

Teach a family member or caregiver to do colostomy care

Break the tasks into small steps and teach sequentially

Review the entire procedure 3 or 4 times before patient participates

Suggest patient try to relax and concentrate

Explanation:

If a 69-year-old patient is learning to care for a colostomy but is quite tense and becomes confused about the sequence of actions required, the most appropriate teaching strategy is to breaks the tasks into small steps and teach sequentially. When the patient becomes adept at one step, the patient can begin to learn the next. When patients are ill and stressed, learning can be difficult; and procedures, such as colostomy care, can seem overwhelming.

130.

A patient complains of a history of nausea and burning and stabbing epigastric pain, relieved for short periods by antacids or intake of food, and a urea breath test is positive. These findings MOST LIKELY indicate which of the following?

Esophagitis

Gastritis and *Salmonella* infection

Reflux

Duodenal ulcer and *Helicobacter pylori* infection

Explanation:

These symptoms are consistent with a duodenal ulcer, and the positive urea breath test indicates a Helicobacter pylori infection, which is usually treated with a proton pump inhibitor plus clarithromycin and amoxicillin/metronidazole. About 90% of duodenal ulcers are associated with H.pylori infection. H.pylori weakens the mucosa and results in hypersecretion of gastric acid. Eating may increase pain with gastric ulcers but usually relieves pain with

duodenal ulcers. Smoking increases the risk of peptic ulcer disease, and use of NSAIDs increases risk of serious complications, such as bleeding or perforation.

131.

A 60-year old male has had yearly negative fecal occult blood tests for 10 years. How frequently should the patient have a colonoscopy?

Every year

Every 5 years

Every 10 years

Every 2 years until age 70

Explanation:

Every 10 years. Screening should begin at age 50 or those with average risk and age 40 with increased risk. Screening tests include:

- *Colonoscopy—every 10 years or as follow-up for abnormalities in other screening: Allows for removal of polyps, small cancerous lesions, and biopsies and provides surveillance of inflammatory bowel disease.*
- *Fecal occult blood—yearly: checks for blood in stool.*
- *Flexible sigmoidoscopy—every 5 years: Scope checks for polyps or signs of cancer in rectum and lower third of colon.*
- *Double contrast barium enema—every 5 years: X-ray with contrast to visualize intestinal abnormalities.*

132.

A patient taking metoclopramide has been prescribed haloperidol. For which of the following does this drug combination put the patient at increased risk?

Tachycardia

Tardive dyskinesia

Excessive sedation

GI bleeding

Explanation:

If a patient taking haloperidol has been prescribed metoclopramide, this drug combination puts the patient at increased risk of developing tardive dyskinesia. Both drugs can cause uncontrollable movement disorders and this combination potentiates the effect and can lead to life-threatening neuroleptic malignant syndrome. The risk of developing tardive dyskinesia with metoclopramide increases with treatment extending beyond 12 weeks. Metoclopramide may also interact with numerous other drugs, including other antipsychotic drugs and phenothiazines.

133.

Which of the following is a long double-lumen tube inserted into the small intestine for drainage and decompression?

Salem sump

Miller-Abbott

Cantor

Levin

Explanation:

Miller-Abbott is a long double-lumen tube inserted into the small intestine for drainage and decompression. The Salem-sump tube is also double-lumen but is short and contains a small vent tube within the larger tube to help reduce pressure at the distal eyes to less than 24 mm Hg in order to prevent tissue damage. The Cantor tube is a single lumen tube that contains an inflatable balloon at the distal end to prevent the tube from migrating. The Levin tube is a single lumen tube with a solid end.

134.

A patient has had severe watery diarrhea and vomiting for 48 hours. Which electrolyte imbalance is MOST LIKELY to occur?

Hypernatremia

Hyponatremia

Hypercalcemia

Hypocalcemia

Explanation:

The electrolyte imbalance that is likely to occur with persistent vomiting and diarrhea is hyponatremia. Gastric and intestinal fluids contain high levels of sodium, so sodium can become depleted with nausea and diarrhea. Hyponatremia is a sodium level of less than 135 mEq/L. This type of hyponatremia resulting from hypovolemia is characterized by dry mucous membranes, orthostatic hypotension, tachycardia and poor skin turgor. The patient may appear weak, stuporous, confused and/or lethargic.

135.

Most absorption of nutrients occurs in which of the following?

Stomach

Duodenum

Jejunum and ileum

Large intestine

Explanation:

Most absorption of nutrients occurs in the small intestine, in the jejunum and ileum. The digestive process starts in the mouth as saliva and chewing begin to break down the food that then enters the esophagus and travels to the stomach, where the food is further mixed and broken down by the addition of acid and enzymes. This process continues in the duodenum with most absorption of nutrients occurring in the small intestine. Fluid continues to be absorbed in the large intestine.

136.

Which of the following types of laxatives/cathartics is MOST recommended for chronic constipation?

Stimulant

Lubricant

Emollient/wetting

Bulk-forming

Explanation:

Bulk-forming products, such as psyllium (Metamucil®), methycellulose (Citrucel®) and polycarbophil (Fibercon®) are generally the drugs of choice for chronic constipation because they increase absorption of fluid in the stool, helping to increase mass, soften stool, and stimulate peristalsis. Bulk-forming products have few adverse effects and are less irritating to the intestines than other preparations. However, if fluid intake is inadequate, bulk formers can cause obstruction, so they should be avoided with patients who are dehydrated or on fluid restriction.

137.

How long after PEG is performed is the tract usually mature and well-healed enough for placement of a balloon gastrostomy (G-tube)?

4 to 7 days

2 to 4 weeks

1 to 2 months

3 to 4 months

Explanation:

The tract of a PEG usually matures and heals within 2 to 4 weeks. Once the tract has healed, the original PEG tube can generally be replaced with a balloon gastrostomy tube. Gastrostomy tubes with an internal balloon or mushroom tip, measured markings, and an external disk are easier to stabilize, but internal devices should be checked daily by gently pulling until resistance is felt. External stabilizing devices can be applied to the skin to hold the tube in place. The tube may also be taped to the abdomen or secured with a binder.

138.

Which of the following is the correct response if, in the initial period after surgery for a colostomy, the stoma appears dull and blue-tinged?

Notify the physician

Observe for further changes

No response needed, as this is normal finding

Provide patient with nasal oxygen

Explanation:

While the stoma may be edematous in the initial postoperative period, it should appear red to pink, shiny, and moist, indicating adequate oxygenation and healthy tissue. If the stoma appears dull and cyanotic (blue to purple to brown/black if the tissue becomes necrotic), the physician should be notified immediately because reoperation to increase blood flow to the tissue may be indicated. The stoma should be assessed for circulatory impairment on a regular schedule after surgery.

139.

When irrigating a Kock pouch to improve drainage postoperatively, what is the maximal amount of fluid that should be instilled at one time?

≤1000 mL

≤500 mL

≤100 mL

≤40 mL

Explanation:

The Kock pouch may need to be irrigated postoperatively to promote drainage because of the accumulation of mucus. Also, once the patient begins to eat, drainage may slow, requiring irrigation. Up to 1000 mL total of solution (usually tap water) may be needed to flush the pouch but only 30 to 40 mL of fluid should be instilled at one time as the capacity of the pouch is small. The instilled fluid should be drained completely before doing another instillation and the patient observed carefully for abdominal discomfort.

140.

How soon after collection must an unpreserved stool be tested for ova and parasites?

30 minutes

60 minutes

2 hours

4 hours

Explanation:

Unpreserved stool must be tested for ova and parasites within 2 hours of collection. (The same is true for most tests with unpreserved stool.) However, the stool may be place in liquid transport media with preservative, such as orange Cary-Blair container, and tested within 14

days for ova and parasites or cultured. WBC count must be carried out on unpreserved stool. Testing for rotavirus must also be carried out on unpreserved stool immediately after collection.

141.

What of the following is the MOST LIKELY cause when a patient with an ileo-anal pouch develops a sudden increase in the frequency of stools as well as bloody diarrhea, fever, and fecal incontinence?

Peritonitis

Pouchitis

Anastomotic leak

Fistula formation

Explanation:

Increased frequency of stools, bloody diarrhea, fever, and fecal incontinence are signs of pouchitis, non-specific inflammation of the pouch. Although the cause is not known, pouchitis may indicate undiagnosed regional enteritis (Crohn's disease) in some patients although it is more common in patients with ulcerative colitis. Pouchitis is most common in the first two years after surgery. Pouchitis usually responds rapidly to metronidazole, and this helps to differentiate the condition from others that may cause similar symptoms.

142.

When checking aspirant from a J-PEG tube, which pH value is consistent with possible gastric migration?

0 to 4

>6

<6

>7.5

Explanation:

The pH of gastric fluids is usually 0 to 4, so this finding may indicate proximal migration of the J-tube. The pH in the small intestine is usually less than 6 while a higher pH, such as >7.5 may indicate pulmonary migration. A marked increase in intestinal residual volume may indicate migration. If that occurs, then feedings should be held for at least an hour before pH testing is done. Gastric aspirant is usually curdled and clear to white while intestinal aspirant may be brownish/greenish because of bile staining.

143.

If a patient scheduled for a colonoscopy has a nose stud and enclosed lip ring, which of the following actions is appropriate?

Remove the lip ring and tape the nose stud securely

Leave both in place

Remove both prior to the procedure

Remove the nose stud but leave the lip ring in place

Explanation: