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Q.1 **A nurse is assessing a patient who has just been started on heparin therapy. Which of the following laboratory tests should be monitored regularly?**

A. International Normalized Ratio (INR)
B. Prothrombin time (PT)
C. Partial thromboplastin time (PTT)
D. Platelet count

Answer: C

Sol:

· **PT (prothrombin time):** The PT test evaluates the extrinsic and final common pathways of the coagulation cascade. It is primarily used to monitor **warfarin therapy**, not heparin. It measures how long it takes for blood to clot after the addition of tissue factor and evaluates coagulation factors I (fibrinogen), II (prothrombin), V, VII, and X.
· **INR (international normalized ratio):** The INR is a standardized version of the PT and is also used to monitor **warfarin therapy**, not heparin. It ensures consistency in PT results across different laboratories. The INR is particularly helpful in adjusting the warfarin dosage to maintain blood coagulation within the therapeutic range.
· **aPTT (activated partial thromboplastin time):** The **aPTT** is the most appropriate test for monitoring **heparin therapy** because it evaluates the **intrinsic and final common pathways** of the coagulation cascade, which are directly affected by heparin. Heparin inhibits clot formation by enhancing the activity of antithrombin III, which primarily inhibits thrombin and Factor Xa. Regular aPTT testing is necessary to ensure that the blood is not clotting too quickly or slowly while on heparin therapy.
When to Monitor: The aPTT should be measured every 6 hours after starting or changing the heparin dosage until the therapeutic range is achieved. Once stabilized, the aPTT can be measured less frequently.
Therapeutic Range: The aPTT is typically maintained at 1.5 to 2.5 times the normal value during heparin therapy.
· **Platelet count:** While a platelet count may be part of routine monitoring for patients on heparin, it is not the primary test to monitor heparin therapy. However, it is crucial to monitor platelets periodically because **heparin-induced thrombocytopenia (HIT)** is a potential complication of heparin therapy. HIT is a condition where heparin triggers an immune response, leading to a decrease in platelets and an increased risk of thrombosis.

Q.2 **A patient receiving intravenous fluids suddenly develops shortness of breath, cough, and chest pain. What is the most likely cause?**

A. Fluid overload
B. Allergic reaction
C. Pneumonia
D. Air embolism

Answer: D

Sol:

· **Fluid overload:** While fluid overload can cause shortness of breath and cough due to pulmonary edema, it is typically associated with signs such as peripheral edema and increased blood pressure. Chest pain is not a primary symptom of fluid overload, making it less likely in this scenario.
· **Allergic reaction:** An allergic reaction can cause respiratory symptoms such as shortness of breath and wheezing, but it is usually accompanied by other symptoms like rash, itching, or swelling. Chest pain is not a typical symptom of an allergic reaction.
· **Pneumonia:** Pneumonia can cause cough, chest pain, and shortness of breath, but it develops over time rather than suddenly. The abrupt onset of symptoms in this patient makes pneumonia less likely.
· **Air embolism:** Air embolism is the most likely cause of the sudden onset of shortness of breath, cough, and chest pain during intravenous therapy. This condition occurs when air enters the bloodstream, typically due to improper handling of IV equipment. The air travels to the lungs, obstructing blood flow and causing acute symptoms. It is a medical emergency requiring immediate intervention.

Q.3 **A nurse is caring for a patient who is receiving a high dose of corticosteroids. Which of the following is a common side effect of corticosteroid therapy?**

A. Weight loss
B. Muscle weakness
C. Hypertension
D. Hypoglycemia

Answer: C

Sol:

· **Weight loss:** Corticosteroids typically cause **weight gain** rather than weight loss. This occurs due to:
· Increased appetite.
· Redistribution of fat to areas like the face ("moon face"), abdomen, and back of the neck ("buffalo hump"). Thus, weight loss is not a common side effect of corticosteroid therapy.
· **Muscle weakness: Muscle weakness** can occur as a long-term side effect due to corticosteroid-induced muscle atrophy, also known as **steroid myopathy**. Prolonged high doses of corticosteroids lead to protein catabolism, which weakens muscles. However, it is not the most common side effect and typically appears after extended use rather than high doses for a short period.
· **Hypertension: Hypertension** is a **common side effect** of corticosteroid therapy. Corticosteroids cause sodium retention and potassium excretion, leading to fluid retention and an increase in blood pressure. This mineralocorticoid-like activity is a key reason for hypertension in patients receiving corticosteroids.
· **Hypoglycemia:** Corticosteroids are more likely to cause **hyperglycemia** (high blood sugar) rather than hypoglycemia (low blood sugar). They increase gluconeogenesis (the production of glucose in the liver) and decrease glucose uptake by cells, leading to elevated blood glucose levels. This is particularly significant in patients with diabetes or those at risk for diabetes.

Q.4 **The nurse is providing education to a patient diagnosed with hypertension. Which of the following should the nurse recommend as a lifestyle change?**

A. Increasing sodium intake
B. Reducing physical activity
C. Eating a low-fat, low-sodium diet
D. Decreasing fluid intake

Answer: C

Sol:

· **Increasing sodium intake**: Sodium intake should be **reduced** in patients with hypertension (high blood pressure), as excess sodium can cause the body to retain water, which increases blood volume and raises blood pressure. A typical recommendation for people with hypertension is to limit sodium intake to **2,300 mg per day** or less, and ideally, aiming for **1,500 mg**.
· **Reducing physical activity**: Physical activity has a **positive effect on blood pressure** and should be encouraged, not reduced. Regular physical activity, such as **30 minutes of moderate exercise most days of the week**, helps lower blood pressure by improving heart health and circulation. Sedentary lifestyles contribute to higher blood pressure and overall cardiovascular risk.
· **Eating a low-fat, low-sodium diet**: A **low-fat, low-sodium diet** is a key recommendation for managing hypertension. Reducing sodium helps control blood pressure, while a low-fat diet, especially one that is low in saturated fats and trans fats, can improve heart health and reduce the risk of heart disease, which is common in people with hypertension. The **DASH (Dietary Approaches to Stop Hypertension)** diet specifically emphasizes reducing sodium intake, eating more fruits, vegetables, and whole grains, and avoiding unhealthy fats.
· **Decreasing fluid intake**: Decreasing fluid intake is generally not recommended for people with hypertension unless advised by a healthcare provider due to specific medical reasons (such as kidney issues). Hydration is important for maintaining overall cardiovascular health. In fact, dehydration can sometimes cause blood pressure to rise as the body tries to conserve water.

Q.5 **A patient with chronic heart failure is prescribed a diuretic. The nurse should closely monitor the patient for signs of:**

A. Hyperkalemia

B. Hypokalemia
C. Hypoglycemia
D. Hypernatremia

Answer: B

Sol:

· **Hyperkalemia**: While hyperkalemia (high potassium levels) can be a concern in some situations, it is **not typically associated with diuretics** in the treatment of chronic heart failure. The most commonly used diuretics for heart failure, such as **furosemide** (a loop diuretic) and **hydrochlorothiazide** (a thiazide diuretic), tend to **cause potassium loss**, leading to **hypokalemia** (low potassium levels). However, **potassium-sparing diuretics** (such as spironolactone) may increase potassium levels, but this is not common with most diuretics used for heart failure.
· **Hypokalemia**: **Hypokalemia** (low potassium levels) is a common and serious side effect of **loop diuretics** (e.g., furosemide) and **thiazide diuretics** (e.g., hydrochlorothiazide). These diuretics increase urine output and can cause the body to excrete excessive amounts of potassium, leading to dangerously low potassium levels. Potassium is essential for proper heart function, and hypokalemia can cause **arrhythmias** and worsen heart failure symptoms. Therefore, the nurse must closely monitor potassium levels in patients receiving diuretics for heart failure and may need to recommend potassium supplements or foods rich in potassium.
· **Hypoglycemia**: Hypoglycemia (low blood sugar) is **not typically associated with diuretics**. Diuretics primarily affect fluid and electrolyte balance, rather than glucose metabolism. However, patients with diabetes who are also prescribed diuretics should be monitored for blood glucose levels, as dehydration from diuretics can potentially lead to changes in glucose control, but **hypoglycemia** itself is not a direct risk from diuretics.
· **Hypernatremia**: **Hypernatremia** (high sodium levels) is usually **not a concern with diuretics**. Diuretics generally increase the excretion of sodium (along with water), which helps in the management of fluid retention and edema in heart failure patients. While sodium levels should still be monitored, diuretics are more likely to cause **hyponatremia** (low sodium levels) due to excessive fluid loss.

Q.6 **A nurse is administering an intravenous (IV) medication. Which of the following is an appropriate nursing action?**

A. Administer the medication rapidly to avoid delayed effects
B. Check the patient's IV site for signs of infiltration or phlebitis
C. Change the IV site every 72 hours, regardless of the condition of the site
D. Mix the medication with a large volume of IV fluid to reduce the risk of adverse effects

Answer: B

Sol: · **Administer the medication rapidly to avoid delayed effects**: Administering intravenous (IV) medications rapidly **can be dangerous**, as it may increase the risk of **adverse effects** or **toxic reactions**, especially with certain medications. The rate at which an IV medication is given should always be based on the medication's guidelines and the provider's order. Rapid infusion can cause complications such as **cardiac arrhythmias** or **hypotension**, depending on the drug.
· **Check the patient's IV site for signs of infiltration or phlebitis**: It is crucial to check the IV site **before, during, and after** administering IV medications. Signs of **infiltration** (when the IV catheter becomes dislodged from the vein and the medication leaks into the surrounding tissue) and **phlebitis** (inflammation of the vein) can cause **pain, swelling, redness, or warmth** at the site, and can lead to serious complications if not addressed. Regular assessment of the IV site helps detect these issues early, ensuring patient safety and effective medication administration.
· **Change the IV site every 72 hours, regardless of the condition of the site**: The recommendation to change the IV site every **72 hours** is not universally applicable. The site should be changed based on the **condition of the IV site**, not strictly by the time frame. If the site is showing signs of irritation, infection, or infiltration, it may need to be changed earlier. Conversely, if the site is intact and functioning well, it may remain in place longer (typically up to **96 hours** in some institutions, but guidelines vary). Regular monitoring is important to determine when a change is necessary.
· **Mix the medication with a large volume of IV fluid to reduce the risk of adverse effects**: While some medications may require dilution to reduce **irritation** or the risk of **adverse reactions**, not all medications should be mixed with a large volume of fluid. The appropriate amount of IV fluid for dilution depends on the **medication** being administered, its properties, and its specific instructions. Diluting a medication improperly can lead to **ineffective therapy** or other **complications**, so the nurse should follow the prescribed guidelines for dilution, rather than assuming that a large volume of fluid is always the best solution.

Q.7 **A nurse is caring for a patient after a stroke. What is the primary goal of rehabilitation for this patient?**

A. To restore the patient to pre-stroke condition
B. To prevent further strokes
C. To assist the patient in regaining as much functional ability as possible
D. To improve the patient's cognitive abilities

Answer: C

Sol:

· **To restore the patient to pre-stroke condition**: While rehabilitation aims to improve the patient's functioning, **restoring the patient to their pre-stroke condition** is not always realistic. Strokes often result in permanent changes, and recovery depends on the severity of the stroke, the area of the brain affected, and how quickly treatment and rehabilitation begin. The goal is to maximize recovery, but full restoration of pre-stroke condition is often not possible.
· **To prevent further strokes**: While preventing further strokes is an important aspect of overall stroke care (such as managing risk factors like hypertension, diabetes, and cholesterol), **it is not the primary goal of rehabilitation** after a stroke. Rehabilitation is focused on helping the patient recover function and improve quality of life after the stroke has occurred, rather than preventing future events. Prevention of further strokes is addressed through ongoing medical management and lifestyle changes.
· **To assist the patient in regaining as much functional ability as possible**: The primary goal of **rehabilitation after a stroke** is to help the patient **regain as much functional ability as possible**. Stroke rehabilitation focuses on improving mobility, speech, cognitive function, and other abilities that were impaired by the stroke. The goal is to help the patient live as independently as possible, even if full recovery is not achievable. Therapy (physical, occupational, speech) helps maximize recovery and enhances quality of life.
· **To improve the patient's cognitive abilities**: While improving cognitive abilities is a component of stroke rehabilitation, it is not the **primary goal**. Strokes can impair both physical and cognitive functions, and addressing cognitive deficits (such as memory, attention, and problem-solving) is part of the rehabilitation process. However, rehabilitation's **main focus** is on overall functional recovery, including motor skills, daily living activities, and social reintegration, rather than solely on cognitive improvement.

Q.8 **A nurse is educating a patient with asthma on how to use a metered-dose inhaler (MDI). Which of the following actions should the nurse include in the teaching?**

A. "Shake the inhaler vigorously before using it."
B. "Inhale deeply and hold your breath for 10 seconds after using the inhaler."
C. "Use the inhaler only during an asthma attack."
D. "Exhale forcefully before using the inhaler."

Answer: A

Sol:

"**Shake the inhaler vigorously before using it.**": It is important to **shake a metered-dose inhaler (MDI)** vigorously before use, especially if it contains a suspension medication (such as a steroid inhaler). Shaking ensures that the medication is properly mixed inside the canister, delivering the correct dose. Not shaking the inhaler can result in an incorrect or incomplete dose.
"**Inhale deeply and hold your breath for 10 seconds after using the inhaler.**": The recommendation to hold your breath after inhaling is accurate, as it helps the medication settle in the lungs. However, holding your breath for **5-10 seconds** is usually sufficient, rather than exactly 10 seconds. Holding the breath too long (especially for beginners) can cause discomfort or difficulty, so 5 seconds is typically enough for optimal medication absorption.
"**Use the inhaler only during an asthma attack.**": A metered-dose inhaler (MDI) may be prescribed for **both** quick-relief (rescue) and **maintenance** therapy. **Rescue inhalers** are used during an asthma attack for immediate relief of symptoms, while **maintenance inhalers** (such as corticosteroids) are used regularly to control asthma over time. The patient should use the inhaler as prescribed, whether it's for ongoing control or for acute symptoms, and not just during an asthma attack.
"**Exhale forcefully before using the inhaler.**": The correct technique is to **exhale gently**, not forcefully, before using the inhaler. Exhaling too forcefully can cause you to lose control of the inhalation technique, and it is more likely to lead to the medication being inhaled incorrectly. A gentle exhalation ensures that the patient starts with empty lungs and can inhale deeply and smoothly when using the inhaler.

Q.9 **A nurse is assessing a patient with a suspected pulmonary embolism (PE). Which of the following is the most common presenting symptom of a PE?**

A. Chest pain
B. Tachypnea
C. Hemoptysis
D. Fever

Answer: B

Sol:

Chest pain: While **chest pain** is a common symptom of pulmonary embolism (PE), it is **not the most common presenting symptom**. The chest pain associated with PE is often sharp or pleuritic, meaning it worsens with breathing or coughing. However, **tachypnea** (increased respiratory rate) is more commonly seen in patients with PE, as the body attempts to compensate for the impaired gas exchange caused by the embolism.

Tachypnea: **Tachypnea** (rapid breathing) is the most common presenting symptom of a pulmonary embolism. When a PE occurs, blood flow to parts of the lung is obstructed, leading to decreased oxygen levels in the blood (hypoxia). The body responds by increasing the respiratory rate to try to improve oxygenation. Tachypnea is a frequent early sign of PE, and it can occur even before other more specific symptoms manifest.

Hemoptysis: **Hemoptysis** (coughing up blood) can occur in some cases of PE, especially if the embolism causes infarction or damage to lung tissue, but it is not the most common symptom. Hemoptysis is less frequent and usually seen in more severe or massive PEs.

Fever: A **fever** is not a typical presenting symptom of pulmonary embolism. While a low-grade fever might occasionally occur due to inflammation caused by the embolism, fever is not a primary or common symptom. Fever is more likely to be associated with other conditions like infections, such as pneumonia or deep vein thrombosis (DVT) leading to PE.

Q.10 **A nurse is caring for a patient who is post-operative following a mastectomy. Which of the following is a priority intervention?**

A. Encourage the patient to cough and deep breathe every hour
B. Assess the surgical site for signs of infection every shift
C. Provide a pillow for the patient to place under the arm for support
D. Educate the patient about exercises for the arm and shoulder

Answer: A

Sol:

· **Encourage the patient to cough and deep breathe every hour**: One of the priority interventions post-operatively, especially after a mastectomy, is to **prevent respiratory complications**, such as pneumonia or atelectasis. **Coughing and deep breathing exercises** help to expand the lungs, mobilize secretions, and prevent lung collapse. This is particularly important for patients who have had general anesthesia and may have reduced lung expansion or may be at risk for respiratory complications after surgery. Ensuring the patient can clear secretions and keep the airways open is a critical post-operative priority.

· **Assess the surgical site for signs of infection every shift**: This is **important**, but **not the priority**. While it's important to monitor the surgical site for infection, it is a routine intervention. Infection prevention is key, but the **priority** in the immediate post-operative phase is often respiratory management. **Infection** will be assessed, but interventions to maintain respiratory function (like deep breathing and coughing) are typically prioritized first, as they can have a more immediate impact on the patient's recovery.

· **Provide a pillow for the patient to place under the arm for support**: This is **important**, especially for comfort and support after a mastectomy. Placing a pillow under the arm helps reduce pressure on the incision site and provides comfort, especially in the **first few days** after surgery. However, while it's helpful for pain management and comfort, it's not as urgent as ensuring proper respiratory function.

· **Educate the patient about exercises for the arm and shoulder**: This is **important** for long-term recovery, particularly to prevent stiffness and improve range of motion after surgery. However, it is not a **priority** in the immediate post-operative period. The focus immediately after surgery should be on basic comfort, respiratory function, and preventing complications. **Exercise education** can be started once the patient is stable and after the initial recovery phase.

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Q.11 **Which of the following is a characteristic of a hypertensive crisis?**

A. Blood pressure reading greater than 140/90 mmHg
B. Sudden onset of headache and blurred vision
C. Gradual increase in blood pressure over several weeks
D. Pulse rate greater than 100 beats per minute

Answer: B

Sol:

· **Blood pressure reading greater than 140/90 mmHg**: A blood pressure reading of **140/90 mmHg** or higher is considered **hypertension**, but it does not indicate a hypertensive crisis. A hypertensive crisis refers specifically to a **severe, acute increase** in blood pressure, usually greater than **180/120 mmHg**, and can occur suddenly. It's important to differentiate between **hypertension** and a **hypertensive crisis**, which requires urgent medical intervention.

· **Sudden onset of headache and blurred vision**: **Hypertensive crisis** is characterized by a **sudden and severe increase in blood pressure**, often greater than **180/120 mmHg**. This can lead to **acute symptoms** such as **severe headache**, **blurred vision**, **chest pain**, **shortness of breath**, and signs of organ damage (e.g., in the kidneys or heart). Headache and blurred vision are common because high blood pressure can affect the blood vessels in the eyes and brain, potentially leading to **hypertensive encephalopathy** or **retinopathy**.

· **Gradual increase in blood pressure over several weeks**: A **gradual increase in blood pressure** over several weeks is typical of **chronic hypertension**, not a hypertensive crisis. Hypertensive crisis, by definition, occurs **suddenly** and is marked by a rapid and severe rise in blood pressure, often over hours or days. Chronic hypertension can increase the risk of a hypertensive crisis, but the gradual rise is not a feature of it.

· **Pulse rate greater than 100 beats per minute**: While an elevated pulse rate (tachycardia) can occur with severe hypertension, it is not a defining characteristic of a hypertensive crisis. **Tachycardia** can occur in many different conditions and does not specifically point to a hypertensive crisis. The hallmark of hypertensive crisis is the **extremely high blood pressure**, with symptoms such as headache, blurred vision, and other signs of organ damage.

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Q.12 **The nurse is caring for a patient receiving warfarin therapy. Which of the following foods should the nurse advice the patient to limit?**

A. Dairy products
B. Green leafy vegetables
C. Whole grains
D. Fruits

Answer: B

Sol:

· **Dairy products**: Dairy products do not have a significant effect on warfarin therapy. However, **excessive vitamin K intake** is the primary concern with warfarin therapy, and dairy products generally do not interfere with warfarin's action. Some dairy products can be high in calcium, but this does not significantly affect warfarin's action unless there is a very high intake of calcium or if the patient is using calcium supplements with warfarin.

· **Green leafy vegetables**: **Green leafy vegetables** (e.g., spinach, kale, broccoli, and lettuce) are high in **vitamin K**, which plays a key role in **blood clotting**. Warfarin works by inhibiting the action of vitamin K, and **excessive intake of vitamin K-rich foods** can counteract warfarin's effectiveness, leading to **reduced anticoagulation** and a **higher risk of clotting**. Therefore, it is important for patients on warfarin to **limit** their intake of green leafy vegetables to maintain a consistent level of vitamin K intake and ensure that warfarin works effectively.

· **Whole grains**: Whole grains, such as brown rice, oats, and whole wheat, do not have a significant effect on warfarin therapy. While they are a healthy part of a balanced diet, they do not interact directly with warfarin or influence its anticoagulation effect. There are no specific restrictions on whole grains for patients taking warfarin.

· **Fruits**: Most fruits, such as apples, bananas, oranges, and berries, do not interact with warfarin. **Vitamin K** content in fruits is generally low, so there is no need to limit fruit intake when on warfarin therapy. However, patients should be cautious with certain fruit juices (like grapefruit juice), which can interact with other medications, but this does not typically apply to warfarin.

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Q.13 **A nurse is caring for a patient who is receiving a blood transfusion. The nurse should monitor for which of the following early signs of a transfusion reaction?**

A. Fever, chills, and rash
B. Chest pain, hypotension, and dyspnea
C. Headache, dizziness, and nausea
D. Back pain, dark urine, and fever

Answer: A

Sol:

· **Fever, chills, and rash**: **Fever, chills, and rash** are common early signs of a **transfusion reaction**, particularly **acute hemolytic reactions** or **allergic reactions**. These symptoms may occur soon after the transfusion begins, and they are often the first indicators that the body is reacting to the transfused blood. If a transfusion reaction is suspected, the nurse should immediately stop the transfusion, notify

the healthcare provider, and initiate further assessments and interventions to manage the reaction.
· **Chest pain, hypotension, and dyspnea**: While **chest pain, hypotension, and dyspnea** are serious signs and symptoms that may occur in severe **hemolytic reactions** or **anaphylactic reactions**, these tend to be later or more severe manifestations. They require immediate medical intervention and are not typically the **early signs** of a transfusion reaction. If a patient experiences these symptoms, the transfusion should be stopped immediately and emergency measures should be initiated.
· **Headache, dizziness, and nausea**: **Headache, dizziness, and nausea** can be seen in some transfusion reactions, but they are not the **most common early signs**. These symptoms are more general and can be related to a variety of conditions, not necessarily transfusion reactions. They are often **nonspecific** and may not be the first indication of a transfusion-related issue. However, if these symptoms occur during a transfusion, the nurse should assess for other signs and stop the transfusion if a reaction is suspected.
· **Back pain, dark urine, and fever**: **Back pain, dark urine, and fever** are more likely to occur in a **severe hemolytic transfusion reaction**, which is a more serious and potentially life-threatening complication. These symptoms are typically **late indicators** and are associated with the breakdown of red blood cells from an incompatible blood transfusion, leading to **hemoglobinuria** (dark urine). While important to monitor, these are not the **early signs** of a transfusion reaction.

Q.14 **A patient with chronic obstructive pulmonary disease (COPD) is being discharged with a prescription for oxygen therapy. Which of the following should the nurse include in the discharge teaching?**

A. "You should use oxygen during exercise only."
B. "You can smoke while using oxygen if you are in an open area."
C. "Make sure the oxygen equipment is kept free of dust and dirt."
D. "Oxygen therapy should be discontinued when you feel better."

Answer: C

Sol:

· **"You should use oxygen during exercise only."**: Patients with chronic obstructive pulmonary disease (COPD) who are prescribed oxygen therapy typically need to use it **continuously** or as directed by their healthcare provider, not just during exercise. Oxygen therapy is often necessary to maintain adequate oxygen saturation levels throughout daily activities, including rest, sleep, and physical exertion. Limiting oxygen use to only when exercising could lead to inadequate oxygen levels at other times, which can result in hypoxia and worsen COPD symptoms.
· **"You can smoke while using oxygen if you are in an open area."**: Smoking **while using oxygen** is extremely dangerous, even if the person is in an open area. **Oxygen supports combustion**, so smoking around oxygen can lead to a **fire hazard**, potentially causing severe burns or explosions. Patients using oxygen should **never** smoke or be around open flames or heat sources, regardless of the environment, to reduce the risk of fire.
· **"Make sure the oxygen equipment is kept free of dust and dirt."**: It is important to **keep the oxygen equipment clean** to prevent contamination, especially the nasal cannula, mask, or tubing, as dust, dirt, and debris can obstruct airflow, cause infections, or irritate the respiratory tract. Cleaning and maintaining the oxygen equipment properly helps ensure its effectiveness and the patient's safety.
· **"Oxygen therapy should be discontinued when you feel better."**: . Oxygen therapy should not be discontinued based on the patient's subjective feeling of improvement. Oxygen therapy is typically prescribed to maintain adequate oxygen levels, and it should be continued as directed by the healthcare provider, even if the patient feels better. Discontinuing oxygen without medical guidance can result in oxygen desaturation, leading to increased strain on the heart and other organs, and exacerbating the COPD condition.
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Q.15 **A nurse is caring for a patient who is prescribed a statin medication. The nurse should educate the patient about the importance of monitoring which of the following laboratory tests?**

A. Liver function tests
B. Serum potassium levels
C. Blood glucose levels
D. Renal function tests

Answer: A

Sol:

· **Liver function tests**: Statins, which are commonly prescribed for lowering cholesterol, can potentially **cause liver toxicity**. As such, monitoring **liver function tests** (such as AST, ALT, and bilirubin) is crucial to detect any early signs of liver damage. If liver enzyme levels become elevated, the statin may need to be discontinued or adjusted. Regular liver function testing is an important part of managing statin therapy to ensure the medication is not causing harm to the liver.
· **Serum potassium levels**: Statins do not have a direct effect on **serum potassium levels**. While certain medications (like potassium-sparing diuretics or ACE inhibitors) may affect potassium levels, statins primarily impact lipid levels and liver function. Monitoring serum potassium levels is not a routine part of statin therapy.
· **Blood glucose levels**: Statins are not typically associated with significant changes in blood glucose levels. While there have been some concerns that statins may slightly increase the risk of developing type 2 diabetes, **routine blood glucose monitoring** is not specifically required for all patients on statins. If a patient is at high risk for diabetes, blood glucose monitoring might be considered, but it is not a standard part of statin therapy.
· **Renal function tests**: While certain medications, such as ACE inhibitors or diuretics, may require renal function monitoring due to their impact on kidney function, statins do not generally have a direct effect on **renal function**. Monitoring **renal function tests** (e.g., creatinine, BUN) is not typically necessary unless there are concerns about kidney issues or if the patient has existing renal disease.

Q.16 **A nurse is caring for a patient with an indwelling urinary catheter. Which of the following is the best method to prevent a urinary tract infection (UTI)?**

A. Ensure the catheter is secured to the patient's thigh
B. Use sterile technique during catheter insertion and maintenance
C. Clean the catheter with soap and water every shift
D. Change the catheter every 24 hours

Answer: B

Sol:

· **Ensure the catheter is secured to the patient's thigh**: but **not the most effective method** to prevent a urinary tract infection (UTI). Properly securing the catheter to prevent accidental pulling or displacement is a good practice for patient comfort and to avoid trauma to the urinary tract. However, this action alone does not directly prevent a UTI. Infection prevention is more directly impacted by **sterile technique** during insertion and maintenance.
· **Use sterile technique during catheter insertion and maintenance**: The **most important strategy to prevent a urinary tract infection (UTI)** is to use **sterile technique** during the **initial catheter insertion** and throughout the **maintenance** of the catheter. This includes proper hand hygiene, using sterile equipment, and ensuring the catheter is clean and secure. Avoiding contamination during insertion and handling is key to reducing the risk of introducing bacteria into the urinary tract, which can lead to a UTI. Catheters should only be inserted when absolutely necessary and maintained with care to minimize infection risk.
· **Clean the catheter with soap and water every shift**: This is **partially helpful** but not the **best method** to prevent UTIs. Cleaning the catheter with soap and water can help maintain general hygiene, but it does not effectively prevent UTIs. In fact, it may introduce bacteria if not done properly, and routine cleaning is generally not recommended unless there is visible contamination. Instead, sterile technique during insertion and regular monitoring of catheter function (such as ensuring it remains patent and properly positioned) are more crucial for preventing infection.
· **Change the catheter every 24 hours**: Routine catheter changes every 24 hours are **not necessary** and may actually increase the risk of infection. In fact, catheter-associated urinary tract infections (CAUTIs) can occur more frequently with unnecessary manipulation. **Catheters should only be changed** when clinically indicated (e.g., if the catheter is blocked or if it becomes contaminated). **Prolonged catheterization** should be avoided, and the catheter should be removed as soon as it is no longer needed to reduce the risk of infection.

Q.17 **A nurse is educating a patient on insulin injection technique. The nurse should teach the patient to inject insulin into which of the following areas for the best absorption?**

A. Upper arm
B. Abdomen
C. Thigh
D. Buttocks

Answer: B

Sol:

· **Upper arm**: While the **upper arm** is an acceptable site for insulin injection, it is not the **best area** for absorption. The skin and fat layer in the upper arm can absorb insulin at a slightly slower rate compared to the abdomen. This site is typically used when other areas are not available or when patients are advised to rotate injection sites.
· **Abdomen**: The **abdomen** is generally the **best area** for insulin absorption due to its **faster absorption rate** compared to other injection sites. The **fatty tissue** in the abdomen is more consistent, and insulin injected here tends to be absorbed quickly, providing more predictable blood sugar control. The area around the **2 inches from the navel** is commonly recommended, avoiding the exact area of the navel.
· **Thigh**: The **thigh** is another acceptable site for insulin injection, but absorption here is typically slower compared to the abdomen. It can be useful for insulin absorption over a longer period of time,

but it is not preferred for immediate or quicker absorption, especially when blood glucose levels need to be managed more promptly.
· **Buttocks**: The **buttocks** are a less commonly used site for insulin injections. The absorption rate is generally slower here, which can result in less predictable insulin action. While insulin can be injected in the buttocks, the abdomen is preferred for faster and more consistent absorption.
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Q.18 **A patient is prescribed digoxin for heart failure. The nurse should monitor the patient for which of the following signs of digoxin toxicity?**

A. Nausea, vomiting, and visual disturbances
B. Weight gain and swelling
C. Dizziness and lightheadedness
D. Chest pain and palpitations

Answer: A

Sol:

· **Nausea, vomiting, and visual disturbances**: These symptoms are commonly associated with **digoxin toxicity**, which can occur when the level of digoxin in the bloodstream becomes too high. **Nausea and vomiting** are gastrointestinal symptoms that frequently occur in digoxin toxicity, while **visual disturbances**, such as seeing yellow or green halos around lights (a condition called **xanthopsia**), are also key signs. Digoxin toxicity can also cause **arrhythmias**, which is another important reason for close monitoring when a patient is on digoxin.
· **Weight gain and swellin:** While **weight gain and swelling** can be signs of **heart failure** progression or fluid retention, they are **not** typical signs of **digoxin toxicity**. Weight gain and edema may indicate that the heart failure is worsening, but they are not specific to digoxin overdose or toxicity.
· **Dizziness and lightheadedness**: Although **dizziness and lightheadedness** can occur due to a variety of causes, including heart failure or side effects of medications, these are **not specific signs of digoxin toxicity**. However, **dizziness** can also be a symptom of **digoxin-induced arrhythmias**, but it is not a hallmark sign of toxicity by itself.
· **Chest pain and palpitations**: **Chest pain and palpitations** are generally signs of a **cardiac issue**, such as **angina** or **arrhythmia**, but they are **not directly associated with digoxin toxicity**. Digoxin toxicity primarily causes **gastrointestinal symptoms** (nausea/vomiting), **visual disturbances**, and can lead to **arrhythmias**, but it does not commonly cause chest pain or palpitations in isolation. Palpitations could occur if digoxin toxicity leads to abnormal heart rhythms, but chest pain is not typical.

Q.19 **A nurse is caring for a patient who has just received a kidney transplant. The nurse should monitor for signs of which of the following complications?**

A. Rejection
B. Pulmonary embolism
C. Hypertension
D. Hyperglycemia

Answer: A

Sol:

· **Rejection**: After a kidney transplant, one of the most important complications the nurse should monitor for is **organ rejection**. **Rejection** occurs when the recipient's immune system identifies the transplanted kidney as foreign and begins attacking it. Signs of kidney rejection can include **fever**, **swelling or tenderness over the transplant site**, **reduced urine output**, and **elevated creatinine levels**. Rejection is most likely to occur within the first few weeks or months after transplant, so close monitoring is essential to identify it early and start appropriate treatment (such as immunosuppressive therapy adjustments).
· **Pulmonary embolism**: While **pulmonary embolism (PE)** can occur in any post-surgical patient due to immobility or other factors (such as deep vein thrombosis), it is **not the most common complication** specifically after a kidney transplant. The focus after a kidney transplant is primarily on monitoring for **rejection** and managing the patient's **immunosuppressive therapy** to prevent rejection.
· **Hypertension**: **Hypertension** is indeed a common concern in kidney transplant patients, particularly due to factors such as **immunosuppressive medications (like corticosteroids)**, **graft dysfunction**, and **fluid retention**. However, **hypertension** is not the most immediate complication to monitor for after a transplant compared to **rejection**. Nonetheless, **blood pressure** should be closely monitored in kidney transplant patients because uncontrolled hypertension can damage the new kidney and lead to complications.
· **Hyperglycemia**: **Hyperglycemia** can occur as a result of the use of **immunosuppressive medications** (especially corticosteroids), which can increase blood glucose levels. However, like **hypertension**, it is not the most urgent or immediate concern post-transplant. While **hyperglycemia** is common in the short-term and should be managed, the **immediate concern** is monitoring for **rejection** and ensuring the transplant kidney is functioning properly.
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Q.20 **A nurse is assessing a patient with hyperthyroidism. Which of the following symptoms would the nurse most likely observe?**

A. Cold intolerance and weight gain
B. Weight loss and tachycardia
C. Bradycardia and fatigue
D. Decreased appetite and constipation

Answer: B

Sol:

· **Cold intolerance and weight gain**: **Cold intolerance** and **weight gain** are typically symptoms of **hypothyroidism**, not hyperthyroidism. In hypothyroidism, the thyroid hormone levels are low, which causes a slowing of metabolism, leading to weight gain and difficulty in tolerating cold. Hyperthyroidism, on the other hand, is characterized by an overactive thyroid, which speeds up metabolism and causes the opposite symptoms.
· **Weight loss and tachycardia**: **Hyperthyroidism** is characterized by an overproduction of thyroid hormones (T3 and T4), which increases the metabolic rate. As a result, individuals with hyperthyroidism often experience **weight loss** despite an increased appetite. Another common symptom of hyperthyroidism is **tachycardia** (rapid heart rate), due to the stimulatory effect of excess thyroid hormone on the cardiovascular system. Other symptoms may include heat intolerance, sweating, and nervousness.
· **Bradycardia and fatigue**: **Bradycardia (slow heart rate)** and **fatigue** are more commonly associated with **hypothyroidism**, where a deficiency in thyroid hormones leads to a slower metabolism, causing a reduced heart rate and fatigue. In hyperthyroidism, the opposite occurs: increased heart rate (tachycardia) and sometimes even symptoms of restlessness or hyperactivity.
· **Decreased appetite and constipation**: **Decreased appetite** and **constipation** are also more characteristic of **hypothyroidism**, which slows down gastrointestinal motility and reduces appetite. In contrast, people with **hyperthyroidism** often have an increased appetite due to the elevated metabolic rate and may experience diarrhea rather than constipation.
· Top of Form
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Q.21 **A patient has been diagnosed with Parkinson’s disease. The nurse should monitor for which of the following symptoms?**

A. Muscle rigidity
B. Increased appetite
C. Tachycardia
D. Hyperglycemia

Answer: A

Sol:

· **Muscle rigidity**: **Muscle rigidity** is one of the hallmark symptoms of **Parkinson's disease**. It refers to the stiffness or tightness of muscles, which can lead to limited range of motion, difficulty with movements, and a characteristic "cogwheel" rigidity, where the muscles seem to resist movement in a jerky manner. Rigidity is caused by the loss of dopamine-producing cells in the brain, which affects muscle control. It is one of the key motor symptoms, along with tremors and bradykinesia (slowness of movement).
· **Increased appetite**: **Increased appetite** is not typically associated with **Parkinson's disease**. In fact, people with Parkinson's may experience changes in their eating habits, including **decreased appetite** (due to difficulty swallowing or loss of taste), and may even experience weight loss over time. Changes in appetite are not a prominent feature of Parkinson’s disease.
· **Tachycardia**: **Tachycardia** (an abnormally fast heart rate) is not a typical symptom of **Parkinson’s disease**. While Parkinson's disease can affect autonomic functions (such as blood pressure regulation), it is more commonly associated with **orthostatic hypotension** (low blood pressure upon standing), not tachycardia. However, some patients may experience changes in heart rate due to the medications used to treat Parkinson's (e.g., dopaminergic drugs), but tachycardia is not a core symptom of the disease itself.

· **Hyperglycemia**: **Hyperglycemia** (high blood sugar) is not a common symptom of **Parkinson's disease**. While patients with Parkinson's may experience certain metabolic changes due to medication side effects or decreased physical activity, **hyperglycemia** is more closely associated with **diabetes mellitus** or the use of certain medications (like corticosteroids), not Parkinson's disease itself. Parkinson's disease primarily affects movement and motor control, not blood sugar regulation.

Q.22 **A nurse is teaching a patient about the proper use of an inhaler. Which of the following instructions is correct?**

A. "Inhale forcefully and rapidly when using the inhaler."
B. "Hold your breath for 5 seconds after using the inhaler."
C. "Use the inhaler after eating meals."
D. "You should use the inhaler only when experiencing an asthma attack."

Answer: B

Sol:

· **"Inhale forcefully and rapidly when using the inhaler."**: When using a metered-dose inhaler (MDI), the patient should **inhale slowly and deeply**, not forcefully or rapidly. A slow, deep inhalation ensures that the medication is properly delivered to the lungs and absorbed effectively. Rapid inhalation may cause the medication to deposit in the mouth or throat rather than the lungs, reducing its effectiveness.
· **"Hold your breath for 5 seconds after using the inhaler."**: After inhaling the medication from an inhaler, it is recommended to **hold your breath for about 5 to 10 seconds**. This allows the medication to settle in the lungs, providing the maximum benefit. Holding the breath ensures that the inhaled medication is not exhaled too quickly, which can reduce its effectiveness.
· **"Use the inhaler after eating meals."**:There is no specific recommendation to use the inhaler **after eating meals**. The timing of inhaler use depends on the specific medication (e.g., rescue inhalers vs. maintenance inhalers) and the patient's individual treatment plan. Many inhalers are used on a regular schedule or as needed during symptoms, and they are not tied specifically to mealtimes.
· **"You should use the inhaler only when experiencing an asthma attack."**: **Rescue inhalers** (such as short-acting beta agonists) are used during an **asthma attack** or when experiencing symptoms like shortness of breath or wheezing. However, **maintenance inhalers** (such as corticosteroids or long-acting bronchodilators) are used regularly to **prevent asthma symptoms** from occurring, even when the patient is not experiencing an attack. So, an inhaler should not only be used during an asthma attack but as part of an ongoing asthma management plan.
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Q.23 **The nurse is caring for a patient who is receiving intravenous (IV) fluids. What is the priority for the nurse to assess?**

A. Blood pressure
B. IV site for signs of infiltration or phlebitis
C. Temperature
D. Serum potassium levels

Answer: B

Sol:

· **Blood pressure**: While **blood pressure** is an important parameter to assess, especially in patients receiving IV fluids (as fluid status can affect blood pressure), it is not the **immediate priority** in this situation. The nurse should definitely monitor blood pressure, particularly if the patient is receiving large volumes of IV fluids or if the patient is at risk for **fluid overload** or **hypotension**, but the most immediate concern with IV fluid administration is ensuring the **integrity of the IV site** to prevent complications like infiltration or phlebitis.
· **IV site for signs of infiltration or phlebitis**: **Infiltration** and **phlebitis** are potential complications of IV fluid administration that can occur at the IV insertion site. Infiltration happens when the IV fluid leaks into the surrounding tissue, causing swelling and discomfort, while **phlebitis** is inflammation of the vein that can lead to redness, warmth, and pain at the insertion site. Both conditions can cause significant harm if not detected and managed promptly. Therefore, the nurse's priority should be to assess the **IV site for early signs of infiltration or phlebitis** to prevent further complications like tissue damage or infection.
· **Temperature**: While **temperature** is important to assess in general and could be useful in detecting infection, it is **not the immediate priority** when administering IV fluids. Infection at the IV site or related to the fluid could lead to fever, but the first step is to assess for issues with the IV site itself, such as infiltration or phlebitis. If the patient develops a fever later, then infection at the IV site could be a concern, but it isn't the first thing to monitor in this case.
· **Serum potassium levels**: While **serum potassium levels** are important to monitor, especially if the patient is receiving certain IV fluids (like those containing potassium) or is at risk for electrolyte imbalances, this is not the **immediate priority** in the context of ongoing IV fluid administration. Potassium levels should be monitored as part of a comprehensive assessment but do not need to be checked at every moment during the administration of IV fluids unless there is a specific reason (e.g., the patient is on potassium-containing fluids or has a history of electrolyte imbalances).

Q.24 **Which of the following is a common side effect of angiotensin-converting enzyme (ACE) inhibitors?**

A. Hyperkalemia
B. Hypotension
C. Persistent cough
D. Bradycardia

Answer: C

Sol:

· **Hyperkalemia**: ACE inhibitors can cause **hyperkalemia** (elevated potassium levels) as they reduce aldosterone secretion, which normally helps the kidneys excrete potassium. As a result, potassium can build up in the bloodstream. While hyperkalemia is a potential side effect of ACE inhibitors, it is not the most common or characteristic side effect compared to others like persistent cough.
· **Hypotension**: **Hypotension** (low blood pressure) can be a side effect of ACE inhibitors, especially when starting therapy or increasing the dose. ACE inhibitors help relax blood vessels, which can lower blood pressure. However, hypotension is not as common or characteristic as the **persistent cough** that many patients experience. It is a possible side effect, but the **cough** is more consistently associated with ACE inhibitors.
· **Persistent cough**: One of the **most common and well-known side effects** of ACE inhibitors is a **persistent dry cough**. This occurs in a significant number of patients and is thought to be due to the accumulation of bradykinin, a peptide that is normally broken down by ACE. When ACE is inhibited, bradykinin levels rise, leading to the cough. If the cough is bothersome, a switch to an angiotensin receptor blocker (ARB) may be considered, as ARBs do not cause this side effect.
· **Bradycardia**: **Bradycardia** (slow heart rate) is not a common side effect of ACE inhibitors. While ACE inhibitors can lower blood pressure, they do not typically affect heart rate significantly. Bradycardia is more commonly associated with other medications like beta blockers or calcium channel blockers, but not ACE inhibitors.

Q.25 **A nurse is caring for a patient with a head injury. Which of the following signs should the nurse be alert for, which could indicate increased intracranial pressure (ICP)?**

A. Hyperthermia
B. Decreased heart rate
C. Decreased blood pressure
D. Altered level of consciousness

Answer: D

Sol:

· **Hyperthermia**: While **hyperthermia** (elevated body temperature) can occur in patients with neurological conditions, it is **not a primary or direct sign** of increased intracranial pressure (ICP). However, an increase in body temperature may occur due to brain injury, infection, or other systemic issues, but **altered consciousness** is a more specific and significant indicator of ICP.
· **Decreased heart rate**: A **decreased heart rate** (bradycardia) can indeed be a sign of increased intracranial pressure, but it is usually a later sign. It occurs due to the **Cushing's reflex**, which is a compensatory mechanism in response to increased ICP. Initially, ICP may cause an increase in blood pressure (hypertension) as the body tries to maintain cerebral perfusion, and bradycardia can follow. However, **altered level of consciousness** is typically an earlier, more common sign.
· **Decreased blood pressure**: A **decreased blood pressure** is not a typical or early sign of increased ICP. In fact, increased ICP often leads to **hypertension** (elevated blood pressure) as the body compensates to maintain adequate cerebral perfusion. As the ICP increases, the body may also show a widening pulse pressure (the difference between systolic and diastolic blood pressure increases).
· **Altered level of consciousness**: **Altered level of consciousness (LOC)** is one of the **earliest and most important signs** of increased intracranial pressure. As the pressure inside the skull rises, it affects the brain's function, leading to confusion, drowsiness, difficulty waking up, or even coma in severe cases. Changes in LOC often occur before other signs such as bradycardia or hypertension.

Q.26 **A nurse is caring for a patient with a history of chronic liver disease. Which of the following findings should be reported immediately?**

A. Mild jaundice
B. Decreased urine output
C. Decreased appetite
D. Swelling of the legs

Answer: B

Sol:

· **Mild jaundice**: **Mild jaundice** can occur in patients with chronic liver disease, as the liver is responsible for processing bilirubin. In liver disease, bilirubin can build up in the bloodstream, leading to yellowing of the skin and eyes (jaundice). While jaundice should be monitored and evaluated, **mild jaundice alone is not typically an immediate cause for alarm** unless it worsens or is accompanied by other concerning symptoms, such as severe confusion or bleeding.
· **Decreased urine output**: **Decreased urine output** (oliguria) is a serious symptom that should be **reported immediately** in a patient with chronic liver disease. It could indicate **acute kidney injury (AKI)**, a common complication in liver disease, particularly in conditions like **hepatorenal syndrome**. Hepatorenal syndrome is a form of kidney failure that occurs in patients with cirrhosis and severe liver dysfunction. Decreased urine output can indicate worsening liver function and poor perfusion to the kidneys, both of which require urgent medical evaluation.
· **Decreased appetite**: A **decreased appetite** (anorexia) is a common symptom in chronic liver disease due to various factors, including metabolic changes, nausea, or the body's response to liver dysfunction. While this is a concerning symptom, it does not usually require immediate intervention unless it is severe or associated with other signs of liver failure.
· **Swelling of the legs**: **Swelling of the legs (edema)** is a common symptom in patients with liver disease, particularly cirrhosis, due to **fluid retention** and **portal hypertension**. While this should be monitored and managed, it is not typically an immediate emergency unless it rapidly worsens or is accompanied by other serious signs like shortness of breath, which could indicate **hepatic ascites** or **cardiac failure**.

Q.27 **A nurse is caring for a patient with a chest tube in place. The nurse should assess the drainage for:**

A. Increased redness in the surrounding tissue
B. Presence of bubbling in the water seal chamber
C. Absence of drainage
D. Change in the patient's heart rate

Answer: B

Sol:

· **Increased redness in the surrounding tissue**: Increased redness around the chest tube insertion site might suggest infection or irritation. While this is important to monitor, it does not directly relate to assessing the drainage from the chest tube system.
· **Presence of bubbling in the water seal chamber**: The presence of bubbling in the water seal chamber can indicate an air leak. Continuous bubbling suggests a persistent air leak, while intermittent bubbling might occur during the resolution of a pneumothorax. No bubbling could indicate that the lung has re-expanded or that there is a blockage in the system.
· **Absence of drainage**: Absence of drainage could indicate a potential issue such as a blockage in the tube or that the drainage has ceased naturally. However, it is not the primary aspect to monitor in relation to air leaks or the functioning of the chest tube system.
· **Change in the patient's heart rate**: A change in heart rate can indicate pain, anxiety, or complications like hypoxia. While it is important to monitor the patient's overall condition, heart rate changes are not specific to assessing the chest tube drainage system.

Q.28 **The nurse is caring for a patient with a newly diagnosed myocardial infarction (MI). The nurse should assess for which of the following signs of shock?**

A. Hypotension
B. Fever
C. Cyanosis
D. Bradycardia

Answer: A

Sol:

Hypotension: **Hypotension** (low blood pressure) is one of the most common signs of shock, including in the case of a **myocardial infarction (MI)**. When the heart muscle is damaged during an MI, its ability to pump blood effectively is compromised, which can lead to a drop in blood pressure (shock). Monitoring for **hypotension** is critical as it can indicate the presence of shock, particularly **cardiogenic shock**, which occurs when the heart is unable to supply enough blood to meet the body's needs.
Fever: **Fever** is not typically an early or primary sign of shock. It is more commonly associated with infection or inflammation. While a **mild fever** could develop in the first few days following an MI as part of the inflammatory response, it is not a defining sign of shock. Fever may appear later, particularly if there is a complication like an infection, but it is not a direct indicator of shock.
Cyanosis: **Cyanosis** (bluish discoloration of the skin, particularly around the lips and fingertips) can occur in severe cases of shock due to inadequate oxygenation of the blood. While it is a sign of severe hypoxia and shock, it is usually seen in later stages, especially if the shock progresses. Early signs of shock, such as **hypotension** and **tachycardia**, are more commonly observed in the early stages after an MI.
Bradycardia: **Bradycardia** (slow heart rate) can occur in some cases of MI, particularly if the **vagus nerve** is stimulated or if the MI affects the electrical conduction system of the heart (e.g., in the case of a **inferior wall MI**). However, **tachycardia** (rapid heart rate) is more commonly seen as a compensatory response to maintain cardiac output in the face of reduced heart function. Bradycardia is not a primary or universal sign of shock.

Q.29 **Which of the following is the most appropriate nursing intervention for a patient who is experiencing anxiety?**

A. Encourage the patient to discuss their feelings and provide reassurance
B. Administer a sedative as prescribed immediately
C. Restrict visitors to reduce distractions
D. Avoid giving any explanation about the patient's condition

Answer: A

Sol:

· **Encourage the patient to discuss their feelings and provide reassurance** This is the **most appropriate nursing intervention** for a patient experiencing anxiety. Anxiety can often be alleviated by allowing the patient to **express their feelings** in a safe, supportive environment. By **encouraging open communication**, the nurse helps the patient feel heard and understood. Additionally, **reassurance** (without minimizing their feelings) can provide comfort and support, helping to reduce anxiety. It allows the patient to process their emotions and feel more in control of their situation.
· **Administer a sedative as prescribed immediately** While **sedatives** may be prescribed for severe anxiety, **medication should not be the first line of intervention**. Non-pharmacologic interventions, such as **therapeutic communication**, **relaxation techniques**, and **supportive listening**, are often more effective in addressing anxiety. Medications should be used based on the patient's needs and prescribed by a healthcare provider, but they should not be the immediate or primary response unless the patient is experiencing significant distress or agitation that requires pharmacological management.
· **Restrict visitors to reduce distractions** While reducing distractions may be helpful in some cases, restricting visitors should not be the first approach unless it is necessary to create a calm, quiet environment for the patient. Often, having **supportive family or friends present** can provide comfort and reduce anxiety. The nurse's role is to **assess the situation** and determine if visitors are contributing to the patient's anxiety, and then make appropriate adjustments. Limiting visitors should be done **based on the patient's specific needs**, not as a blanket solution.
· **Avoid giving any explanation about the patient's condition** This is **not an appropriate intervention**. It is important for the patient to understand their condition and treatment plan. Providing **clear, honest information** can help reduce anxiety by addressing the unknowns and giving the patient a sense of control. Avoiding explanation or withholding information may increase the patient's **fear** and **uncertainty**, worsening their anxiety. Explaining the patient's condition and involving them in decisions about their care are important aspects of anxiety management.

Q.30 **A nurse is caring for a patient with a urinary tract infection (UTI) and is prescribed an antibiotic. Which of the following assessments should the nurse perform before starting the antibiotic?**

A. Assess the patient's allergies
B. Check the patient's blood glucose levels
C. Assess the patient's heart rate
D. Check the patient's temperature

Answer: A

Sol:

· **Assess the patient's allergies:** Before starting any **antibiotic**, it is crucial to **assess the patient's allergies**, especially to antibiotics or any other medications. This is essential because some antibiotics can cause **allergic reactions**, ranging from mild rashes to severe anaphylaxis. The nurse needs to ensure the patient is not allergic to the prescribed antibiotic to prevent potentially life-threatening reactions.
· **Check the patient's blood glucose levels:** While **blood glucose levels** may need to be monitored in patients receiving certain antibiotics, such as **fluoroquinolones** or **penicillins**, this is not the **first priority** when starting an antibiotic for a UTI. Checking blood glucose levels would be more relevant for patients with **diabetes** or those receiving medications that could alter glucose metabolism. It is not a general assessment for all patients starting antibiotics.
· **Assess the patient's heart rate**: **Heart rate assessment** is important in certain situations, especially in patients with **cardiac conditions**, or if the patient is experiencing signs of infection such as **sepsis**. However, it is not the **first step** to take before administering an antibiotic for a UTI. The focus should be on ensuring the patient is not allergic to the prescribed antibiotic.
· **Check the patient's temperature:** Checking the **temperature** is important as part of assessing the patient's **clinical condition**, especially to determine if they have a **fever** (a common sign of infection). However, the **most important initial assessment** before starting an antibiotic is to **check for allergies**. Monitoring the patient's temperature can be done periodically throughout the treatment process but is not a **pre-administration priority**.

Q.31 **A nurse is providing discharge education to a patient who is prescribed warfarin. Which of the following should the nurse include in the teaching?**

A. "Avoid foods high in vitamin K."
B. "You will need to limit your fluid intake."
C. "You can stop taking the medication when your INR is normal."
D. "Increase your intake of dairy products."

Answer: A

Sol:

· **Avoid foods high in vitamin K: Warfarin** is an **anticoagulant** (blood thinner) that works by inhibiting the action of vitamin K, which is necessary for blood clotting. Therefore, patients taking warfarin need to **maintain a consistent intake of vitamin K** to prevent fluctuations in the effectiveness of the medication. **Foods high in vitamin K**, such as **leafy green vegetables** (e.g., spinach, kale, and broccoli), can interfere with warfarin's ability to prevent clotting. The nurse should educate the patient to avoid large changes in vitamin K intake and to be consistent with the amount they consume.
· **You will need to limit your fluid intake**: This statement is not relevant to warfarin therapy. There is no general recommendation to **limit fluid intake** for patients on warfarin unless they have other conditions that require fluid restriction (e.g., heart failure or kidney disease). Warfarin primarily affects clotting, not fluid balance, so this is not part of standard discharge education for a patient taking warfarin.
· **You can stop taking the medication when your INR is normal:** This statement is **incorrect**. **INR (International Normalized Ratio)** is a measure of how long it takes for blood to clot and is used to monitor the effectiveness of warfarin. However, the patient should **not stop taking warfarin** when their INR is normal. Warfarin therapy is typically long-term, and the INR needs to be monitored regularly. Stopping warfarin abruptly could lead to **increased risk of clot formation**. The patient should only stop or adjust the medication under a healthcare provider's guidance.
· **Increase your intake of dairy products**: There is no need for patients on warfarin to **increase their intake of dairy products**. While dairy is generally healthy, it is not particularly relevant to the management of warfarin therapy. The focus should be on maintaining a consistent intake of **vitamin K**, not on increasing dairy consumption. Additionally, some dairy products (like cheese) can have moderate amounts of vitamin K, but the primary concern is avoiding excessive fluctuations in vitamin K, not increasing dairy intake.

Q.32 **A nurse is caring for a patient who is at risk for deep vein thrombosis (DVT). Which of the following interventions should be prioritized?**

A. Place the patient in a Trendelenburg position
B. Encourage the patient to perform leg exercises
C. Administer oxygen as needed
D. Increase the patient's fluid intake

Answer: B

Sol:

· **Place the patient in a Trendelenburg position**: The **Trendelenburg position** (head lower than the feet) is typically used for **hypotensive patients** to promote venous return to the heart. It is **not recommended** for preventing DVT and may even be **counterproductive** in some cases. The position could potentially increase the risk of **pressure sores** and **respiratory complications**. It does not effectively prevent blood stasis in the lower extremities, which is a primary concern for DVT.
· **Encourage the patient to perform leg exercises:** This is the **most important intervention** for preventing **deep vein thrombosis (DVT)**. **Leg exercises**, such as **ankle pumps** and **foot circles**, help improve blood circulation in the legs and reduce the risk of blood clots. **DVT** often develops due to **poor circulation**, especially in immobile patients, so encouraging movement helps prevent venous stasis, a key factor in clot formation. This is a standard intervention for patients who are at risk of DVT, particularly those who are immobile after surgery, injury, or illness.
· **Administer oxygen as needed**: Administering **oxygen** is appropriate for patients who are experiencing respiratory distress or have **hypoxemia**, but it is not a **preventive measure** for DVT. While oxygen is necessary in certain clinical conditions, it does not directly address the risk factors for DVT. The focus for preventing DVT is on improving **circulation**, which is why encouraging leg exercises is the priority intervention.
· **Increase the patient's fluid intake**: Increasing **fluid intake** is important for maintaining adequate **hydration** and **preventing dehydration**, which can contribute to blood viscosity. However, while hydration is important, it is **not the most critical intervention** for preventing DVT. The primary goal is to enhance **circulation** to prevent blood from pooling in the veins and forming clots, which is more directly addressed by encouraging leg exercises.

Q.33 **The nurse is providing care for a patient who is receiving chemotherapy. Which of the following should the nurse monitor for as a potential side effect of chemotherapy?**

A. Hair loss
B. Increased appetite
C. Decreased blood pressure
D. Increased urine output

Answer: A

Sol:

· **Hair loss**: **Hair loss (alopecia)** is a well-known and common side effect of **chemotherapy**. Chemotherapy drugs target rapidly dividing cells, and since hair follicles are among the fastest-growing cells in the body, they can be damaged by chemotherapy. While not all chemotherapy regimens cause hair loss, it is a frequent and visible side effect. Nurses should monitor and prepare patients for the possibility of hair loss, providing support and resources such as wigs or head coverings if needed.
· **Increased appetite**: Chemotherapy often leads to **nausea, vomiting, and changes in taste**, which typically result in **decreased appetite**, rather than increased. Chemotherapy drugs can also affect the gastrointestinal system, leading to symptoms like mouth sores or altered taste, which can make eating less desirable. **Increased appetite** is not a common side effect of chemotherapy; thus, it is not something the nurse would typically monitor.
· **Decreased blood pressure**: **Decreased blood pressure (hypotension)** is not a common direct side effect of chemotherapy, although certain chemotherapy drugs may cause changes in blood pressure due to other factors, such as **fluid shifts**, **dehydration**, or **adverse reactions** like allergic responses. However, hypotension is not typically a primary or frequent side effect of chemotherapy itself, so it would not be the most likely complication to monitor for in this context.
· **Increased urine output**: While **increased urine output (diuresis)** can occur due to certain treatments (e.g., diuretics), it is not a **common side effect of chemotherapy**. In fact, some chemotherapy regimens can cause **dehydration**, **electrolyte imbalances**, or **kidney damage**, which can lead to decreased urine output (oliguria). Increased urine output is not typically a concern to monitor for when a patient is undergoing chemotherapy.

Q.34 **A nurse is caring for a patient who has just been started on a beta-blocker. Which of the following side effects should the nurse educate the patient about?**

A. Insomnia
B. Increased heart rate
C. Bradycardia
D. Hypertension

Answer: C

Sol:

· **Insomnia**: **Insomnia** is not a typical side effect of **beta-blockers**. In fact, beta-blockers are sometimes used to treat anxiety or improve sleep, as they can reduce symptoms like palpitations and tremors. While some beta-blockers might cause **vivid dreams** or **nightmares**, **insomnia** is not a common side effect. The nurse should focus on other, more common side effects, like **bradycardia**.
· **Increased heart rate**: Beta-blockers are **used to decrease the heart rate** and reduce the workload on the heart. They block the effects of **epinephrine** and **norepinephrine** on the heart, resulting in a slower heart rate (bradycardia). Therefore, **increased heart rate** is **not a side effect** of beta-blockers; in fact, it would be contrary to their purpose.
· **Bradycardia**: **Bradycardia** (a slow heart rate) is a **common side effect** of beta-blockers. Because beta-blockers reduce the heart rate, they can cause it to drop too low, especially if the patient is also on

other medications that affect heart rate or has preexisting conditions that predispose them to bradycardia. The nurse should educate the patient to monitor for symptoms of **bradycardia**, such as **dizziness**, **fatigue**, or **lightheadedness**, and contact their healthcare provider if these occur.
· **Hypertension**: Beta-blockers are actually **used to treat hypertension (high blood pressure)**. They lower blood pressure by reducing the heart's workload and the amount of blood it pumps through the body. Therefore, **hypertension** is not a side effect of beta-blockers; it is the condition for which they are often prescribed.

Q.35 **A nurse is caring for a patient after a thoracotomy. Which of the following actions should the nurse prioritize to prevent atelectasis?**

A. Incentive spirometry and deep breathing exercises
B. Administering pain medications
C. Encouraging the patient to remain in bed
D. Limiting fluid intake

Answer: A

Sol:

Incentive spirometry and deep breathing exercises: **Incentive spirometry** and **deep breathing exercises** are **the most effective interventions** to prevent **atelectasis** after a thoracotomy. **Atelectasis** refers to the collapse of lung tissue, which can occur due to shallow breathing, immobility, or pain following surgery. **Incentive spirometry** helps promote deep breaths, improving lung expansion and preventing the alveoli from collapsing. Encouraging **deep breathing exercises** helps increase lung volume and enhances oxygenation. These actions are crucial for preventing complications like **atelectasis** in post-surgical patients, especially after procedures like a thoracotomy.
Administering pain medications: **Pain management** is an important part of post-operative care after a thoracotomy, as **adequate pain control** enables the patient to **breathe deeply** and **cough effectively**, both of which are important for preventing atelectasis. However, while **pain medication** is important, it is **not as direct** in preventing atelectasis compared to **incentive spirometry** and **deep breathing exercises**. Pain relief should be provided in conjunction with other preventive measures.
Encouraging the patient to remain in bed: Encouraging the patient to **remain in bed** is actually **counterproductive** in preventing atelectasis. **Immobility** can worsen the risk of lung complications, including **atelectasis**. After surgery, patients should be encouraged to **mobilize** and **change positions frequently** to facilitate lung expansion and prevent the collapse of lung tissue. Bed rest should be limited, and patients should be encouraged to **sit up** and **perform breathing exercises** to maintain optimal respiratory function.
Limiting fluid intake: There is no direct link between **fluid intake** and the prevention of **atelectasis**. In fact, adequate hydration is important for maintaining overall health and **keeping mucus thin** so it can be more easily cleared from the lungs. While excessive fluid intake can lead to **overhydration** or **pulmonary edema** in some cases, **limiting fluid intake** would not help prevent atelectasis and could be harmful in the post-operative period.

Q.36 **The nurse is providing care for a patient with pneumonia. Which of the following is the most important intervention for this patient?**

A. Encourage hydration
B. Administer antibiotics as prescribed
C. Perform chest physiotherapy
D. Apply oxygen therapy as needed

Answer: B

Sol:

· **Encourage hydration**: Hydration is important in managing pneumonia because it helps thin secretions, making it easier for the patient to clear mucus from the lungs. However, while hydration is beneficial, it does not directly address the infection itself. Therefore, it is a supportive intervention, but **not the most important**.
· **Administer antibiotics as prescribed**: **Antibiotics** are the **most important intervention** for treating **bacterial pneumonia**. They target and eliminate the bacteria causing the infection, which is the primary problem in bacterial pneumonia. Administering antibiotics promptly helps reduce the severity of the illness, prevent complications, and promote recovery. For viral pneumonia, antiviral medications may be considered, but antibiotics remain the primary treatment for bacterial infections.
· **Perform chest physiotherapy**: **Chest physiotherapy** (CPT) is helpful for loosening and clearing mucus from the lungs, which can be beneficial in patients with chronic lung diseases or those who have difficulty expectorating. However, it does not directly treat the infection causing pneumonia. It can be a **supportive intervention** after the infection is being managed, but it is not as critical as antibiotic therapy.
· **Apply oxygen therapy as needed**: **Oxygen therapy** is important for patients with pneumonia who are experiencing **hypoxemia** (low blood oxygen levels). However, **administering antibiotics** to treat the infection is still the **most important** step. Oxygen therapy supports the patient's respiratory function, but it does not treat the infection itself. Oxygen should be given as needed based on the patient's oxygen saturation, but the priority remains the treatment of the infection.

Q.37 **A nurse is caring for a patient who has a history of seizures. Which of the following is the priority action during a seizure?**

A. Administer an anticonvulsant medication
B. Protect the patient from injury and ensure the airway is clear
C. Restrain the patient's arms to prevent injury
D. Place a bite block in the patient's mouth to prevent tongue biting

Answer: B

Sol:

· **Administer an anticonvulsant medication**: Administering an anticonvulsant medication may be part of long-term management or treatment after the seizure, but it is **not the priority action during an active seizure**. The immediate priority is to **ensure the safety of the patient** during the seizure, which includes preventing injury and maintaining an open airway. Medications should only be administered if the seizure persists or if prescribed by the healthcare provider for seizure control.
· **Protect the patient from injury and ensure the airway is clear**: **This is the priority action** during a seizure. The nurse should focus on ensuring the patient's **safety** by preventing injury (e.g., removing nearby dangerous objects) and ensuring that the **airway remains clear**. The patient may experience uncontrolled movements during a seizure, which can lead to injury, so it's important to protect the head and body from harm. **Ensuring the airway is clear** is crucial to prevent aspiration or suffocation, which could occur during a seizure if the patient is unable to breathe properly.
· **Restrain the patient's arms to prevent injury**: **Restraint is not recommended** during a seizure. Trying to physically restrain a patient during a seizure can result in **injury** to both the patient and the nurse. The movements of the seizure are involuntary, and restraining the patient may cause **muscle strain, joint injury**, or harm. Instead, the nurse should focus on **protecting the patient** from harm while allowing the seizure to run its course.
· **Place a bite block in the patient's mouth to prevent tongue biting**: **Placing a bite block** or any object in the patient's mouth is **not recommended** during a seizure, as it can result in **oral injury**, damage to teeth, or a risk of choking. If the patient is at risk of biting their tongue, it is more important to ensure their **airway is clear** and to gently position the patient in a way that minimizes injury (e.g., turning them on their side). The priority is not to stop the patient from biting their tongue, but to protect them from injury during the seizure.

Q.38 **The nurse is educating a patient on the use of a peak flow meter for asthma management. Which of the following should be included in the teaching?**

A. "Use the peak flow meter only when you feel short of breath."
B. "Check your peak flow three times a day and record the results."
C. "Use the peak flow meter after every meal."
D. "Stop using the peak flow meter once your asthma symptoms

Answer: B

Sol:

· **"Use the peak flow meter only when you feel short of breath.":** This statement is **incorrect** because a peak flow meter is a **preventive tool** used to monitor the **baseline lung function** regularly, not just during times of shortness of breath. By using the meter **daily**, the patient can identify early signs of worsening asthma before symptoms become severe. Using it only when feeling short of breath would delay the detection of asthma exacerbation, making it harder to manage.
· **"Check your peak flow three times a day and record the results."**: The general recommendation for asthma management is to use a peak flow meter **at least three times a day** (morning, midday, and evening) to monitor lung function. **Recording the results** helps to track trends and detect any worsening of asthma, even before symptoms like shortness of breath appear. Regular monitoring allows patients to make timely adjustments to their asthma treatment plan as necessary.
· **"Use the peak flow meter after every meal."**: This is not true because using the peak flow meter after every meal is unnecessary. The goal of peak flow monitoring is to assess lung function throughout the day, not specifically after meals. Typically, **three daily checks** are sufficient to monitor asthma control, and the peak flow meter is best used in the morning, before taking asthma medications, and in the evening.
· **"Stop using the peak flow meter once your asthma symptoms improve."**: This is not true because the peak flow meter should be used **consistently** even when asthma symptoms improve. Regular monitoring is important to track changes in lung function and detect early signs of exacerbation, allowing the patient to take appropriate action before the symptoms worsen.

Q.39 **A nurse is caring for a patient with diabetes mellitus who is receiving insulin. The nurse should assess for which of the following complications related to insulin therapy?**

A. Hypoglycemia
B. Hypernatremia
C. Hyperkalemia
D. Hypokalemia

Answer: A

Sol: · **Hypoglycemia**: (low blood sugar) is the most common and significant complication of **insulin therapy**. Insulin lowers blood glucose levels by helping cells absorb glucose from the bloodstream. If too much insulin is administered, or if the patient does not eat enough or exercises too intensely without adjusting their insulin, blood glucose levels can drop too low, leading to **hypoglycemia**. Symptoms of hypoglycemia include sweating, tremors, confusion, dizziness, and in severe cases, loss of consciousness or seizures. Therefore, **hypoglycemia** is a complication that the nurse should closely monitor for in a patient receiving insulin.
· **Hypernatremia**: (elevated sodium levels) is typically not associated with insulin therapy. It is more commonly seen in conditions such as dehydration, kidney problems, or excessive salt intake. While insulin therapy may influence electrolyte levels indirectly, hypernatremia is not a direct complication of insulin use.
· **Hyperkalemia**: (elevated potassium levels) can occur in certain conditions, such as kidney failure or acidosis, but it is not a primary complication of insulin therapy. In fact, insulin can lower blood potassium levels by driving potassium into the cells. Therefore, insulin is sometimes used in the management of **hyperkalemia**. Hyperkalemia is not a typical side effect of insulin therapy.
· **Hypokalemia**: (low potassium levels) is a possible **side effect of insulin**, but it is less common than hypoglycemia. Insulin promotes the uptake of potassium into cells, which can lower potassium levels in the bloodstream. While hypokalemia can occur, especially if large amounts of insulin are given rapidly, it is **not as immediate or common a concern** as hypoglycemia in patients receiving insulin therapy.

Q.40 **A nurse is caring for a patient with acute kidney injury (AKI). The nurse should monitor for which of the following electrolyte imbalances?**

A. Hyperkalemia
B. Hyponatremia
C. Hypercalcemia
D. Hypoglycemia
.

Answer: A

Sol:

· **Hyperkalemia**: (elevated potassium levels) is a common electrolyte imbalance seen in patients with **acute kidney injury (AKI)**. The kidneys are responsible for excreting excess potassium, and when kidney function is impaired, potassium can accumulate in the bloodstream. This can lead to dangerous complications, such as **cardiac arrhythmias**. Therefore, **monitoring for hyperkalemia** is a critical part of managing patients with AKI. Symptoms of hyperkalemia can include muscle weakness, fatigue, palpitations, and irregular heart rhythms.
· **Hyponatremia**: While **hyponatremia** (low sodium levels) can occur in various conditions, including **AKI**, it is **not as common or characteristic** of AKI as hyperkalemia. In AKI, sodium balance may be affected by fluid retention, and patients can develop either **hyponatremia or hypernatremia**, depending on the volume status and how well the kidneys are able to regulate sodium. However, **hyperkalemia** is typically more urgent and commonly seen in AKI.
· **Hypercalcemia**: (elevated calcium levels) is not typically associated with **AKI**. In fact, **hypocalcemia** (low calcium) is more commonly seen in kidney dysfunction due to the kidneys' role in converting vitamin D to its active form, which is essential for calcium absorption. Therefore, **hypercalcemia** is not a primary concern in AKI.
· **Hypoglycemia:** (low blood glucose) is not commonly associated with **AKI**. While kidney dysfunction can affect the metabolism and clearance of some medications, **hypoglycemia** is not a typical electrolyte imbalance in AKI. It is more commonly seen in patients with diabetes or those receiving insulin or other glucose-lowering medications.

Q.41 **A nurse is caring for a patient with a history of coronary artery disease (CAD). Which of the following lifestyle changes should the nurse prioritize?**

A. Increase intake of saturated fats
B. Stop smoking
C. Limit physical activity
D. Increase salt intake

Answer: B

Sol:

· **Increase intake of saturated fats**: **Saturated fats** can contribute to the buildup of plaque in the arteries, which can worsen **coronary artery disease (CAD)**. The recommended dietary changes for CAD patients typically include **reducing** saturated fat intake, as it can raise **LDL cholesterol** (the "bad" cholesterol), increasing the risk of atherosclerosis and heart-related complications.
· **Stop smoking**: **Smoking cessation** is one of the most critical lifestyle changes for patients with **coronary artery disease (CAD)**. Smoking contributes significantly to the development and progression of atherosclerosis, increases the risk of blood clots, raises heart rate and blood pressure, and damages the walls of blood vessels. Stopping smoking can dramatically reduce the risk of further cardiovascular events, making it a priority in CAD management.
· **Limit physical activity**: While it is important to consider the patient's physical condition, **moderate physical activity** is actually beneficial for **CAD patients**. Regular exercise can help improve cardiovascular health, reduce blood pressure, improve cholesterol levels, and aid in weight management. Limiting physical activity is generally not recommended unless the patient has specific contraindications, such as severe heart failure or other limiting conditions.
· **Increase salt intake**: **Increased salt intake** can lead to **hypertension** (high blood pressure), which is a major risk factor for coronary artery disease. For individuals with CAD, the recommended lifestyle change is to **reduce salt intake**, as excessive sodium can contribute to fluid retention and higher blood pressure, worsening heart disease.

Q.42 **A nurse is teaching a patient with hypertension about lifestyle modifications. Which of the following actions should the nurse recommend to help control blood pressure?**

A. Engage in moderate exercise for at least 30 minutes most days of the week
B. Decrease fluid intake
C. Consume a high-fat, high-salt diet
D. Limit potassium intake

Answer: A

Sol:

· **Engage in moderate exercise for at least 30 minutes most days of the week**: Regular **physical activity** is a key lifestyle modification to help control **hypertension**. Engaging in moderate exercise, such as walking, cycling, or swimming, for at least **30 minutes most days of the week** can help lower **blood pressure** by improving heart health, increasing circulation, and reducing stress. Exercise also helps with weight management, which can further benefit blood pressure control.
· **Decrease fluid intake**: Generally, **decreasing fluid intake** is not recommended for blood pressure control unless the patient has a specific condition, like **heart failure**, where fluid retention could be an issue. For most people with hypertension, adequate hydration is important. Fluid balance doesn't directly influence blood pressure unless other medical conditions exist.
· **Consume a high-fat, high-salt diet**: A **high-fat, high-salt diet** can **worsen hypertension** by contributing to higher cholesterol levels, promoting fluid retention, and increasing **blood pressure**. The recommendation for individuals with hypertension is to **limit salt** and consume a **heart-healthy diet**, such as the **DASH (Dietary Approaches to Stop Hypertension) diet**, which emphasizes fruits, vegetables, whole grains, lean proteins, and low-fat dairy while limiting saturated fats and sodium.

· **Limit potassium intake**: **Potassium** is an essential mineral that helps balance sodium levels and reduce **blood pressure**. In fact, most guidelines recommend increasing **potassium intake**, especially from foods like bananas, potatoes, and leafy greens, to help control hypertension. Limiting potassium intake is not recommended unless there is a specific condition affecting the kidneys that impacts potassium levels.

Q.43 **A nurse is caring for a patient who is receiving IV fluids. Which of the following assessments is most important to monitor in this patient?**

A. Temperature
B. Fluid intake and output
C. Heart rate
D. Respiratory rate

Answer: B

Sol:

· **Temperature**: While monitoring temperature is important, especially if the patient is at risk for infection, it is not the most critical parameter when a patient is receiving **IV fluids**. The primary concern with IV fluid administration is ensuring the balance of fluid status, not just monitoring for fever.
· **Fluid intake and output**: Monitoring **fluid intake and output (I&O)** is crucial when a patient is receiving IV fluids because it helps assess the effectiveness of fluid administration and ensures that the patient is not developing fluid overload or dehydration. **I&O** helps the nurse track how much fluid is being infused versus excreted by the body (through urine, vomiting, drainage, etc.), which is vital for preventing complications like **edema** or **electrolyte imbalances**.
· **Heart rate**: While heart rate is an important assessment, particularly for detecting signs of **hypovolemia** (low blood volume) or **fluid overload**, it is not the most specific indicator of fluid status. Heart rate can be influenced by other factors such as **stress**, **pain**, or **medications**, so while it is important, **I&O** is more directly related to fluid management.
· **Respiratory rate**: Respiratory rate is also important to monitor, particularly if the patient is at risk for **fluid overload** or **pulmonary edema**. However, **fluid intake and output** is the more direct assessment in relation to IV fluid therapy. Changes in respiratory rate can signal issues such as **fluid overload** or **respiratory distress**, but they are secondary to fluid balance concerns.

Q.44 **A nurse is educating a patient with diabetes about foot care. Which of the following should the nurse include in the teaching?**

A. "Check your feet daily for any sores, cuts, or blisters."
B. "Massage your feet daily to improve circulation."
C. "Wear tight shoes to prevent foot swelling."
D. "Use hot water to soak your feet regularly."

Answer: A

Sol:

· **"Check your feet daily for any sores, cuts, or blisters."**: Patients with **diabetes** are at high risk for **foot problems**, including infections and ulcers, due to poor circulation and neuropathy (nerve damage). Daily foot inspection is essential to detect **sores**, **cuts**, **blisters**, or any other abnormalities that could lead to infections or complications. Early detection and treatment of foot issues can prevent serious complications like **gangrene** or **amputations**.
· **"Massage your feet daily to improve circulation."**: While massaging the feet may feel good, it is generally **not recommended** for patients with **diabetes** who have **neuropathy** (nerve damage) in their feet. Massaging could inadvertently cause injury if the patient has reduced sensation in their feet. Additionally, aggressive foot massage could lead to **skin tears** or injury in those with fragile skin. Instead, promoting **gentle care** and **regular inspection** is advised.
· **"Wear tight shoes to prevent foot swelling."**: Tight shoes can cause **pressure points**, leading to **blisters**, **sores**, and **poor circulation**, which can worsen foot health in diabetic patients. It is important for diabetic patients to wear **well-fitted shoes** that provide comfort and enough space for the feet to avoid constricting circulation and causing injury.
· **"Use hot water to soak your feet regularly."**: Soaking feet in **hot water** can be harmful to diabetic patients because they may have **reduced sensation** in their feet due to neuropathy, which means they may not feel if the water is too hot. **Burns** or **skin damage** can occur without the patient noticing. It is generally recommended to use **lukewarm water** and avoid prolonged soaking, which can lead to **dry skin** and **cracks** that increase infection risk.

Q.45 **A nurse is caring for a patient who is receiving chemotherapy and is experiencing nausea and vomiting. Which of the following interventions is most appropriate?**

A. Administer an antiemetic as prescribed
B. Increase the patient's fluid intake immediately
C. Encourage the patient to eat large meals
D. Provide a warm compress to the stomach

Answer: A

Sol:

· **Administer an antiemetic as prescribed**: Chemotherapy often causes nausea and vomiting as common side effects due to its impact on the gastrointestinal tract and central nervous system. The **most appropriate intervention** to address these symptoms is to administer an **antiemetic** (medication to prevent nausea and vomiting) as prescribed. Medications such as **ondansetron** or **metoclopramide** can help manage these symptoms effectively and improve the patient's comfort.
· **Increase the patient's fluid intake immediately**: While **hydration** is important, increasing fluid intake **immediately** is not the first step to manage **nausea and vomiting**. In fact, drinking large amounts of fluids too quickly could worsen nausea and potentially cause **electrolyte imbalances**. The priority is to manage the symptoms with antiemetics, and then ensure that hydration is maintained gradually, especially if the patient has been unable to retain fluids.
· **Encourage the patient to eat large meals**: Encouraging large meals is not appropriate, especially when the patient is experiencing nausea and vomiting. **Eating large meals** may make nausea worse and lead to further discomfort. The nurse should recommend **small, frequent meals** of easy-to-digest foods when the patient is able to tolerate food, which can help manage symptoms and reduce nausea.
· **Provide a warm compress to the stomach**: While a warm compress may provide some comfort, it is not the **most appropriate intervention** for **chemotherapy-induced nausea and vomiting**. The first-line treatment should focus on managing the nausea through **medications**, such as **antiemetics**, rather than physical comfort measures like warm compresses. A warm compress may be used for general abdominal discomfort but would not be as effective for chemotherapy-induced nausea and vomiting.

Q.46 **A patient with chronic heart failure is prescribed a potassium-sparing diuretic. Which of the following should the nurse monitor closely?**

A. Potassium levels
B. Blood pressure
C. Liver function tests
D. Blood glucose levels

Answer: A

Sol:

· **Potassium levels**: A **potassium-sparing diuretic** (such as **spironolactone**, **amiloride**, or **triamterene**) works by preventing potassium loss in the urine, which can lead to **hyperkalemia** (elevated potassium levels). Monitoring **potassium levels** is crucial because **hyperkalemia** can be life-threatening, causing serious cardiac arrhythmias. Therefore, it is important for the nurse to monitor potassium levels closely in patients receiving potassium-sparing diuretics.
· **Blood pressure**: While it is important to monitor **blood pressure** in patients with heart failure, **potassium levels** are of higher priority in this context because potassium-sparing diuretics specifically affect potassium balance. **Blood pressure** is generally monitored for other reasons in heart failure management, but it is not the primary concern related to potassium-sparing diuretics.
· **Liver function tests**: Liver function tests may be important for patients taking various medications, but **potassium-sparing diuretics** are not primarily associated with liver toxicity. Liver function should be monitored if there is a clinical indication, but it is not the **primary concern** for patients on potassium-sparing diuretics.
· **Blood glucose levels**: **Blood glucose levels** are typically monitored in patients taking **thiazide diuretics** or **loop diuretics**, as these can affect glucose metabolism. However, potassium-sparing diuretics are less commonly associated with significant effects on **blood glucose levels**, so this is not the primary concern for a patient taking a potassium-sparing diuretic.

Q.47 **A nurse is caring for a patient with a history of peptic ulcer disease. Which of the following should be avoided in the diet?**

A. Spicy foods
B. Fiber-rich foods
C. Fresh fruits
D. Lean meats

Answer: A

Sol:

· **Spicy foods**: **foods** can **irritate** the stomach lining and exacerbate symptoms of **peptic ulcer disease (PUD)**. Foods containing high amounts of chili, peppers, or other hot spices can increase gastric acid production and worsen ulcer pain and discomfort. Therefore, patients with a history of peptic ulcer disease should avoid or limit spicy foods to help prevent irritation and promote healing of the ulcer.
· **Fiber-rich foods**: **Fiber-rich foods** are generally beneficial for overall gastrointestinal health. They can help promote **regular bowel movements** and may **reduce constipation**, which is important for overall health. While fiber-rich foods like fruits, vegetables, and whole grains can sometimes cause mild bloating or discomfort in some people, they are not contraindicated for patients with peptic ulcer disease. In fact, certain fiber-rich foods may aid in digestion and improve gut health. **Fiber-rich foods** are not typically something that needs to be avoided in peptic ulcer disease, unless they cause individual discomfort.
· **Fresh fruits**: **Fresh fruits** are generally **healthy** and **nutritious**, and there is no need to avoid them for patients with peptic ulcer disease unless they specifically cause discomfort (e.g., citrus fruits in some individuals). Most fresh fruits are rich in vitamins, minerals, and fiber, and they can help with overall digestion and health. However, acidic fruits like oranges or grapefruits may cause discomfort for some patients with PUD due to their high acid content, so they may need to be limited, but **fresh fruits** are not generally harmful for ulcer patients.
· **Lean meats**: **Lean meats**, such as chicken, turkey, and fish, are low in fat and are generally **easily digestible**, making them a healthy protein choice for individuals with peptic ulcer disease. They do not typically irritate the stomach lining and are often recommended as part of a balanced diet for those with PUD. **Lean meats** are not something that should be avoided in the diet for peptic ulcer disease.

Q.48 **A nurse is caring for a patient who is receiving an opioid analgesic for pain management. Which of the following side effects should the nurse monitor for?**

A. Constipation
B. Tachypnea
C. Hyperreflexia
D. Increased appetite

Answer: A

Sol:

· **Constipation**: **Constipation** is a common and well-known side effect of **opioid analgesics**. Opioids work by binding to receptors in the brain and spinal cord to block pain, but they also affect the gastrointestinal (GI) tract by decreasing motility, which leads to slowed bowel movements. Nurses should closely monitor patients for **constipation** and provide interventions, such as recommending fiber, fluids, and stool softeners or laxatives, as appropriate.
· **Tachypnea**: While **tachypnea** (increased respiratory rate) can occur in some patients with pain or anxiety, it is not a common side effect of opioids. In fact, **opioids** are more likely to cause **respiratory depression** (slowed breathing), not tachypnea. Respiratory depression is a serious and potentially life-threatening side effect that requires careful monitoring in patients receiving opioid therapy, so **tachypnea** is not a typical concern with opioid analgesics.
· **Hyperreflexia**: **Hyperreflexia** (overactive reflexes) is not a typical side effect of opioid analgesics. Opioids generally cause **sedation** and **depressed reflexes**, not **hyperreflexia**. This side effect is more commonly associated with conditions like **neurological disorders** or certain medications that affect the central nervous system (CNS) in different ways.
· **Increased appetite**: While some medications can affect appetite, **increased appetite** is not a characteristic side effect of **opioid analgesics**. Opioids can cause a range of side effects, but they are more often associated with **nausea**, **vomiting**, or **decreased appetite** due to their effect on the CNS and the gastrointestinal system. An **increase in appetite** is not typically seen with opioid use.

Q.49 **A nurse is caring for a patient with a history of stroke who has been prescribed aspirin. The nurse should monitor for which of the following side effects?**

A. Nausea and vomiting
B. Tinnitus
C. Rash and itching
D. Bradycardia

Answer: B

Sol:

· **Nausea and vomiting**: Nausea and vomiting can occur with many medications, including aspirin, but they are **not** the most common or significant side effect. While aspirin can cause gastrointestinal upset, **nausea and vomiting** are generally less specific and may occur as a result of gastrointestinal irritation.
· **Tinnitus**: **Tinnitus** (ringing in the ears) is a well-known side effect of **aspirin** and other **salicylates** (a class of medications that includes aspirin). Tinnitus can occur when aspirin is taken in higher doses, and it is often considered a sign of **salicylate toxicity**. Nurses should monitor for signs of **toxicity**, especially in patients who are on chronic aspirin therapy. If tinnitus occurs, it may be necessary to adjust the dose or discontinue the medication.
· **Rash and itching**: A **rash and itching** can be signs of an allergic reaction to aspirin, but this is **relatively rare** compared to other side effects. It can indicate a hypersensitivity or allergy to the drug, which may require discontinuation. However, **tinnitus** is a more specific and common side effect of aspirin use.
· **Bradycardia**: **Bradycardia** (slowed heart rate) is not a common side effect of aspirin. Aspirin does not typically affect heart rate directly. Instead, its main effect is on **platelet aggregation** (thinning the blood), which can help prevent blood clots, especially after a stroke. Bradycardia is more commonly associated with other medications or conditions affecting the heart.

Q.50 **A nurse is caring for a patient who has recently undergone a colonoscopy. Which of the following post-procedure care instructions is most important?**

A. "Avoid drinking fluids for the first 12 hours after the procedure."
B. "Report any signs of bleeding or unusual discomfort immediately."
C. "Resume normal activities the next day without restrictions."
D. "Avoid eating solid foods for 24 hours after the procedure."

Answer: B

Sol:

· **"Avoid drinking fluids for the first 12 hours after the procedure."**: After a colonoscopy, patients are usually encouraged to start drinking clear fluids once they are awake and alert, unless otherwise directed by their healthcare provider. Dehydration can be a concern after the procedure, especially if the patient has fasted prior to the colonoscopy. Therefore, **drinking fluids** (in moderation) is typically encouraged to help rehydrate.
· **"Report any signs of bleeding or unusual discomfort immediately."**: After a colonoscopy, it is important to monitor for complications such as **bleeding** (which may occur from the biopsy site or perforation) or other symptoms like **severe abdominal pain**, which could indicate a **perforation**. **Bleeding** can be a sign of a more serious complication and should be reported immediately to prevent further health risks. Signs to watch for include **bright red blood** from the rectum, persistent abdominal pain, or weakness.
· **"Resume normal activities the next day without restrictions."**: After a colonoscopy, most patients are advised to **rest** for the remainder of the day. Due to the sedation used during the procedure, patients are advised to avoid driving or operating heavy machinery for at least 24 hours. Resuming **normal activities** too soon could increase the risk of **injury**, especially if sedation or anesthesia was used. It's best to follow the healthcare provider's specific instructions for post-procedure activity.
· **"Avoid eating solid foods for 24 hours after the procedure."**: This option is not usually necessary unless specifically instructed by the healthcare provider. After a colonoscopy, patients can typically resume eating solid foods **a few hours after the procedure** once they are feeling well and able to tolerate food. There may be some discomfort or bloating initially, but **avoiding solid foods for 24 hours** is typically not required unless there were complications or specific reasons identified by the provider.

Q.51 **A nurse is caring for a patient with hyperglycemia. Which of the following symptoms should the nurse monitor for?**

A. Increased thirst and frequent urination
B. Cold extremities and slow capillary refill
C. Hypotension and dizziness
D. Bradycardia and muscle weakness

Answer: A

Sol:

· **Increased thirst and frequent urination**: **Hyperglycemia** (high blood glucose levels) can lead to symptoms such as **increased thirst (polydipsia)** and **frequent urination (polyuria)**. High blood sugar levels cause the kidneys to filter excess glucose, which pulls more water into the urine, leading to dehydration and frequent urination. The dehydration then triggers an increase in thirst.
· **Cold extremities and slow capillary refill**: **Cold extremities and slow capillary refill** are more often associated with **poor circulation**, shock, or other cardiovascular problems, rather than hyperglycemia. These signs are not typical of hyperglycemia itself, though poor circulation can be a result of prolonged uncontrolled diabetes over time.
· **Hypotension and dizziness**: While **hypotension and dizziness** can occur with dehydration (which can be a consequence of hyperglycemia), these symptoms are not as directly associated with **hyperglycemia** itself. They could also be seen in conditions like hypoglycemia (low blood sugar), or dehydration from other causes. However, they are not the most common immediate signs of hyperglycemia.
· **Bradycardia and muscle weakness**: **Bradycardia (slow heart rate)** and **muscle weakness** are not typically associated with hyperglycemia. Muscle weakness can be a result of **electrolyte imbalances** (such as low potassium), which can sometimes occur with diabetes or diabetic ketoacidosis (DKA), but these are not the hallmark symptoms of hyperglycemia.

Q.52 **A nurse is caring for a patient with chronic obstructive pulmonary disease (COPD). Which of the following should be included in the patient's teaching plan?**

A. "You should use your inhaler only when you feel short of breath."
B. "Avoid drinking fluids during the day to prevent fluid retention."
C. "Use supplemental oxygen during physical activity if needed."
D. "Avoid physical activity to prevent worsening symptoms."

Answer: C

Sol:

· **"You should use your inhaler only when you feel short of breath."**: Inhalers, especially **bronchodilators** or **steroid inhalers**, should be used according to a prescribed schedule or based on specific triggers, not just when the patient feels short of breath. **Rescue inhalers (e.g., albuterol)** may be used for shortness of breath, but **maintenance inhalers (e.g., corticosteroids, long-acting bronchodilators)** are meant to be used regularly to manage symptoms and reduce flare-ups. Patients should adhere to the prescribed regimen.
· **"Avoid drinking fluids during the day to prevent fluid retention."**: Patients with **COPD** may be at risk for dehydration, especially if they have difficulty clearing mucus from the airways. **Fluid intake should not be restricted unless specifically indicated** (e.g., for those with heart failure). In fact, staying well-hydrated helps thin secretions and makes it easier to clear mucus from the lungs. Dehydration can worsen COPD symptoms.
· **"Use supplemental oxygen during physical activity if needed."**: For patients with **COPD**, oxygen therapy is often prescribed to ensure adequate oxygenation, particularly during physical activity or exertion. Using supplemental oxygen during physical activity can help prevent **hypoxia** (low oxygen levels) and improve exercise tolerance. Oxygen should be used as prescribed, and patients should be instructed to use it as needed, especially during activities that cause shortness of breath.
· **"You can stop using your inhaler once you feel better."**: Inhalers should be used as prescribed, even if the patient feels better. **COPD** is a chronic condition, and medications, including inhalers, are essential for managing inflammation, airway constriction, and preventing exacerbations. Stopping medications prematurely can lead to symptom recurrence and worsening of the condition.

Q.53 **A nurse is caring for a patient with a history of deep vein thrombosis (DVT). Which of the following is a priority intervention for this patient?**

A. Encourage ambulation as soon as possible
B. Administer pain medication as prescribed
C. Elevate the patient's legs when in bed
D. Apply a heating pad to the affected area

Answer: A

Sol:

· **Encourage ambulation as soon as possible**: Early ambulation is a key intervention in preventing **deep vein thrombosis (DVT)** complications, such as pulmonary embolism (PE). Moving around helps improve **blood circulation**, reduces stasis (which contributes to clot formation), and decreases the risk of further clot formation. In patients with a history of DVT, encouraging safe and appropriate movement is crucial to reduce the risk of clot extension or a new DVT.
· **Administer pain medication as prescribed**: This is **important**, but not the **priority** intervention. While pain management is essential, it does not directly address the underlying issue of clot formation or prevent complications such as pulmonary embolism. Pain medications should be given as needed to ensure the patient is comfortable, but the priority is promoting circulation and preventing further clot formation.
· **Elevate the patient's legs when in bed**: but not the most critical intervention. Elevating the legs can help with venous return and reduce swelling in patients with DVT. However, **ambulation** is the more critical action to promote circulation and prevent clot-related complications. Elevating the legs may be useful in certain situations but is not the main priority in the context of DVT management.
· **Apply a heating pad to the affected area**: Applying heat to a DVT can increase the risk of **clot dislodgement**, which could lead to a **pulmonary embolism (PE)**, a life-threatening complication. Heat is typically not recommended for DVT, as it can promote further blood flow to the area, potentially dislodging the clot. Cold therapy may be more appropriate for reducing inflammation or pain, but the focus in DVT care should be on safe movement and circulation.

Q.54 **A nurse is caring for a patient with a suspected stroke. Which of the following actions should the nurse take first?**

A. Administer oxygen as needed
B. Call for immediate neurological assessment
C. Elevate the head of the bed
D. Prepare for a CT scan of the brain

Answer: B

Sol:

· **Administer oxygen as needed**: This is **important**, especially if the patient is hypoxic. However, in the context of a **suspected stroke**, the **first priority** is to confirm the diagnosis and assess neurological function, which can be done by calling for a **neurological assessment**. Oxygen can be administered if there are signs of hypoxia (e.g., low oxygen saturation), but it does not take precedence over assessing the patient's neurological status immediately.
· **Call for immediate neurological assessment**: The first action when a stroke is suspected is to call for an **immediate neurological assessment** to determine the type of stroke (ischemic or hemorrhagic) and the severity. This will guide the subsequent actions and treatments, such as administering thrombolytics for ischemic stroke or preparing for surgery in the case of a hemorrhagic stroke. A **quick assessment** (often using scales like the **NIH Stroke Scale**) is essential in determining the appropriate intervention.
· **Elevate the head of the bed**: Elevating the head of the bed may be appropriate for some stroke patients, as it can help reduce intracranial pressure (ICP). However, the **priority action** is not positioning the patient, but rather performing an immediate neurological assessment to confirm the stroke and understand its type and severity. The position of the head may be adjusted later, depending on the patient's condition and the physician's orders.
· **Prepare for a CT scan of the brain**: While a **CT scan** is essential to differentiate between **ischemic and hemorrhagic stroke**, the **first action** should be to ensure that a neurological assessment is performed. A **CT scan** is often performed after the initial assessment and stabilization, and the scan is used to guide specific treatment decisions. Therefore, it is not the **first step** but a critical part of stroke management.

Q.55 **A nurse is caring for a patient who is receiving a blood transfusion. The nurse should immediately stop the transfusion if the patient exhibits which of the following signs?**

A. Fever and chills
B. Slight shortness of breath
C. Mild swelling at the IV site
D. A change in blood pressure within normal limits

Answer: A

Sol:

· **Fever and chills**: **Fever and chills** during a blood transfusion are signs of a **potential transfusion reaction**. A **febrile non-hemolytic transfusion reaction** (which is one of the most common reactions) may occur due to the patient's immune system reacting to white blood cells or plasma proteins in the transfused blood. **Immediate action** should be taken to **stop the transfusion** and assess the patient for further symptoms of a reaction. The nurse should also notify the physician and follow facility protocols for managing transfusion reactions.
· **Slight shortness of breath**: While **shortness of breath** could indicate a possible reaction or a circulatory issue, **slight shortness of breath** alone does not automatically necessitate stopping the transfusion. It's important to monitor closely, but in this scenario, the **first priority** is to address **clear transfusion reactions**, such as **fever and chills**, before considering this symptom. Shortness of breath could also be related to other causes, such as **fluid overload** or the patient's underlying condition, which should be evaluated.
· **Mild swelling at the IV site**: Mild swelling at the **IV site** could indicate **infiltration**, but it is not necessarily an **immediate reason to stop the transfusion**. If the swelling is mild, it may be monitored and addressed without stopping the transfusion immediately. If the swelling worsens or other symptoms occur, the nurse should assess for further complications like **phlebitis** or **extravasation** but stopping

the transfusion is not the immediate priority unless other severe signs are present.
· **A change in blood pressure within normal limits**: A **change in blood pressure** within **normal limits** is **not an immediate concern** and does not require stopping the transfusion. Blood pressure can fluctuate for a variety of reasons, such as **anxiety, hydration status, or underlying conditions**. It's important to monitor blood pressure during the transfusion, but a change within **normal limits** is typically not alarming. Significant changes in blood pressure that are outside of normal limits or associated with signs of **shock** or **hemolysis** would be of greater concern.

Q.56 **A nurse is educating a patient on the use of nitroglycerin for chest pain. Which of the following statements by the patient indicates understanding of the teaching?**

A. "I can use the nitroglycerin whenever I feel short of breath."
B. "I will take a dose every 15 minutes until the pain is relieved."
C. "If the pain persists after two doses, I will call 911."
D. "I should take the nitroglycerin with food to prevent nausea."

Answer: C

Sol:
· **"I can use the nitroglycerin whenever I feel short of breath."**: Nitroglycerin is specifically used for **chest pain (angina)** or **acute coronary symptoms**. It is not typically used for shortness of breath unless it is associated with chest pain or a cardiovascular condition that the nitroglycerin is treating. Using nitroglycerin without the presence of chest pain could lead to **unnecessary side effects** like a **drop in blood pressure**.
· **"I will take a dose every 15 minutes until the pain is relieved."**: The correct protocol for nitroglycerin use is to take **one dose** every **5 minutes** as needed for chest pain. The patient should not exceed **three doses** in **15 minutes**. If pain persists after **two doses** (10 minutes), the patient should **call 911** for emergency medical help. Taking it every 15 minutes, even after two doses, is not recommended and could lead to an overdose or unwanted side effects.
· **"If the pain persists after two doses, I will call 911."**: If **chest pain persists after two doses** of nitroglycerin (within a 10-minute period), the patient should **call 911** or seek emergency medical care immediately. This is critical, as persistent chest pain could indicate a **heart attack** or other serious cardiovascular event requiring urgent treatment.
· **"I should take the nitroglycerin with food to prevent nausea."**: Nitroglycerin is typically taken **sublingually** (under the tongue) for quick absorption and should not be taken with food. Food may slow down the absorption of the medication. Nausea is not a typical side effect when nitroglycerin is taken as prescribed, and taking it with food is unnecessary and not recommended.

Q.57 **A nurse is teaching a patient with heart failure how to monitor their condition. Which of the following instructions should the nurse provide?**

A. "Monitor your weight daily and report any sudden increase of 2-3 pounds in a day."
B. "You should reduce your fluid intake to prevent fluid retention."
C. "Limit your daily physical activity to 15 minutes."
D. "Take your diuretic medication only when you feel short of breath."

Answer: A

Sol:
· **"Monitor your weight daily and report any sudden increase of 2-3 pounds in a day."**: A sudden weight gain of 2-3 pounds in a day is often a sign of fluid retention, which is a common complication of heart failure. Monitoring weight daily helps patients detect early signs of worsening heart failure, allowing timely intervention.
· **"You should reduce your fluid intake to prevent fluid retention."**: While managing fluid intake is important for heart failure patients, this advice needs to be individualized and prescribed by the healthcare provider. Blanket advice to reduce fluid intake may lead to dehydration if not appropriately balanced with the patient's specific needs.
· **"Limit your daily physical activity to 15 minutes."**: Limiting physical activity to just 15 minutes daily is not a standard recommendation for heart failure patients. Instead, patients are encouraged to engage in regular, moderate physical activity tailored to their tolerance and guided by their healthcare provider to improve cardiac function and overall health.
· **"Take your diuretic medication only when you feel short of breath."**: Diuretic medications should be taken as prescribed, not only when symptoms like shortness of breath occur. Irregular use can lead to ineffective management of fluid retention and worsening heart failure.

Q.58 **A nurse is caring for a patient receiving hemodialysis. Which of the following complications should the nurse monitor for immediately after the procedure?**

A. Hypotension
B. Hyperkalemia
C. Pulmonary edema
D. Urinary retention

Answer: A

Sol:
· **Hypotension**: **Hypotension** is a common and serious complication after hemodialysis. During dialysis, fluid and electrolytes are removed from the body, which can lead to a **decrease in blood volume** and result in low blood pressure (hypotension). Symptoms of hypotension include dizziness, lightheadedness, nausea, and even fainting. It is critical to monitor blood pressure closely after hemodialysis to detect this complication and take appropriate actions (e.g., administering fluids, adjusting dialysis settings).
· **Hyperkalemia**: **Hyperkalemia** is a concern for patients with kidney failure, but it is typically managed by dialysis. In fact, one of the primary benefits of hemodialysis is that it helps remove excess potassium (which can lead to **life-threatening arrhythmias**). The levels of potassium should be monitored before and after dialysis, but hyperkalemia is usually not a post-dialysis complication unless there are issues with the procedure or fluid balance.
· **Pulmonary edema**: While **pulmonary edema** (fluid accumulation in the lungs) can occur in patients with severe kidney dysfunction, it is not an immediate complication after hemodialysis. In fact, dialysis is intended to **remove excess fluid** from the body, which can help prevent pulmonary edema. However, if fluid removal is too rapid or excessive, it can lead to **hypotension**, which can indirectly cause or worsen pulmonary edema. Therefore, **hypotension** would be a more immediate concern.
· **Urinary retention**: **Urinary retention** is generally not a complication of hemodialysis. It is more commonly associated with conditions affecting the bladder or prostate. In patients on hemodialysis, **urine output is typically minimal or absent**, especially in those with **end-stage renal disease**. Therefore, urinary retention is not an immediate concern post-hemodialysis.

Q.59 **A nurse is caring for a patient with a history of alcohol abuse. Which of the following is the priority intervention?**

A. Encourage the patient to attend an alcohol rehabilitation program
B. Monitor the patient for signs of withdrawal
C. Educate the patient about the effects of alcohol on liver function
D. Assess the patient's nutritional status

Answer: B

Sol:
· **Encourage the patient to attend an alcohol rehabilitation program**: While encouraging **rehabilitation and treatment programs** is an important aspect of managing alcohol dependence, it is not the **immediate priority**. The **patient's safety** during the withdrawal phase takes precedence over long-term interventions. After ensuring that the patient is stable, participation in rehabilitation programs can be introduced.
· **Monitor the patient for signs of withdrawal**: **Alcohol withdrawal** can occur when a person with alcohol dependence suddenly stops or reduces alcohol intake. The withdrawal symptoms can range from mild to severe and can be life-threatening. Common signs of withdrawal include **tremors, agitation, confusion, hallucinations, seizures, and increased heart rate**. In severe cases, **delirium tremens (DTs)** can occur, which is a medical emergency. **Monitoring for withdrawal symptoms** is the **priority** because if untreated, withdrawal can result in severe complications, including seizures and death.
· **Educate the patient about the effects of alcohol on liver function**: Education about the **effects of alcohol on liver function** is important for long-term management of alcohol use disorder, especially if the patient has liver damage (e.g., cirrhosis). However, this is a **secondary intervention** to **withdrawal management**. The patient may not be receptive to educational efforts if they are experiencing acute withdrawal symptoms.
· **Assess the patient's nutritional status**: Alcohol abuse often leads to **malnutrition**, but this is not the immediate priority in the **acute setting**. Nutritional assessment and support are important for the patient's overall recovery, but **managing withdrawal symptoms** and preventing complications must take precedence.

Q.60 **A nurse is caring for a postoperative patient who is at risk for infection. Which of the following is the most important intervention to reduce the risk of infection?**

A. Administer antibiotics as prescribed

B. Monitor the patient's temperature every 4 hours
C. Use aseptic technique when changing the dressing
D. Encourage the patient to cough and deep breathe

Answer: C

Sol:

· **Administer antibiotics as prescribed**: While administering antibiotics as prescribed is an essential part of infection prevention in some cases, **it is not the most important intervention** for **preventing postoperative infection**. Prophylactic antibiotics are often given to prevent infections, but their effectiveness depends on proper infection control measures (such as aseptic dressing changes and hand hygiene). Antibiotics are a treatment measure, not a preventive action for wound infections caused by improper handling or contamination.
· **Monitor the patient's temperature every 4 hours**: Monitoring the patient's temperature is important for detecting signs of infection (e.g., fever), but it does not prevent infection. **Prevention** through aseptic technique and proper wound care is far more important in reducing the risk of infection than simply monitoring for it. Early detection of infection is important, but preventing it is the priority.
· **Use aseptic technique when changing the dressing**: The most important intervention to **reduce the risk of infection** in a postoperative patient is ensuring that proper infection control measures are in place. **Using aseptic technique** when changing the dressing is essential because it helps prevent the introduction of bacteria into the surgical wound. **Infection control** during dressing changes is a critical part of postoperative care, as the surgical site is vulnerable to contamination, especially in the early stages after surgery.
· **Encourage the patient to cough and deep breathe**: Encouraging coughing and deep breathing is important for **preventing pneumonia** and **improving lung expansion**, especially after surgery. However, it is not the **most important intervention** for **infection prevention** in the surgical wound. Postoperative patients at risk for infection benefit more from aseptic technique and wound care to prevent infections related to the surgical site.

Q.61 **A nurse is caring for a patient who is receiving a blood transfusion. Which of the following is the priority action if the patient experiences a transfusion reaction?**

A. Administer acetaminophen
B. Stop the transfusion and notify the healthcare provider
C. Increase the infusion rate of the blood
D. Document the reaction in the patient's chart

Answer: B

Sol:

· **Administer acetaminophen**: Acetaminophen might be used in some cases to manage **mild fever or pain**, but it is not the **priority action** in the event of a transfusion reaction. The first step should always be stopping the transfusion and notifying the healthcare provider. Administering acetaminophen without addressing the underlying cause of the reaction may delay critical care and treatment.
· **Stop the transfusion and notify the healthcare provider**: If a patient experiences a **transfusion reaction**, the **priority action** is to **stop the transfusion immediately**. This is because the reaction could be life-threatening, and continuing the transfusion could exacerbate the reaction. After stopping the transfusion, the nurse should notify the healthcare provider immediately to ensure proper management, including further diagnostic testing or treatment, depending on the type of reaction. The patient's safety is the priority.
· **Increase the infusion rate of the blood**: This is **contraindicated** in the event of a transfusion reaction. Increasing the infusion rate could worsen the reaction by introducing more of the potentially harmful blood product into the patient's system. The infusion rate should be stopped or slowed, and the transfusion should be halted if a reaction occurs.
· **Document the reaction in the patient's chart**: While it is important to **document** any adverse events or reactions, **documentation** is not the **first priority** in the event of a transfusion reaction. The immediate priority is to stop the transfusion, ensure the patient's safety, and notify the healthcare provider. Documentation can occur later once the patient's condition has been stabilized.

Q.62 **A nurse is caring for a patient with severe burns. Which of the following is the first priority in the immediate management of a burn injury?**

A. Administer pain medications
B. Initiate intravenous (IV) fluid resuscitation
C. Apply topical antibiotics to the burn areas
D. Perform wound debridement

Answer: B

Sol:

· **Administer pain medications**: While pain management is a critical part of burn care, it is **not the first priority**. The primary concern immediately after a severe burn is ensuring adequate tissue perfusion and stabilizing the patient through fluid resuscitation. Once the patient is stabilized and receiving fluids, pain medications can be administered to manage the patient's pain. However, pain medications should not be given before addressing the risk of shock from fluid loss.
· **Initiate intravenous (IV) fluid resuscitation**: The **first priority** in the immediate management of a severe burn injury is to **initiate IV fluid resuscitation**. Severe burns can lead to significant fluid loss due to damage to the skin, which is the body's primary barrier to water loss. This can result in **hypovolemic shock**, where there is inadequate circulating blood volume. Administering fluids (usually isotonic solutions like **Lactated Ringer's**) helps to restore circulating volume, improve tissue perfusion, and prevent shock, which is crucial in the initial phase of burn management. Fluid resuscitation is typically guided by formulas like the **Parkland formula**, which helps determine the volume of fluids needed based on the patient's weight and the extent of the burn.
· **Apply topical antibiotics to the burn areas**: Topical antibiotics like **silver sulfadiazine** or **bacitracin** are important for preventing infections in burn wounds, but this is **not the first priority**. The primary goal in the immediate phase is stabilizing the patient by providing adequate fluids and oxygen, and only after this should wound care and antibiotic application be considered.
· **Perform wound debridement**: Wound debridement, the process of removing dead tissue from the burn wound, is essential for promoting healing and preventing infection. However, this is typically performed later in the burn care process, after initial stabilization, including fluid resuscitation. Immediate debridement could lead to additional fluid loss and should not take precedence over addressing the patient's immediate physiological needs.

Q.63 **A nurse is teaching a patient about the use of a peak flow meter for asthma management. Which of the following should the nurse include in the teaching?**

A. "You should use the peak flow meter before meals to check your lung function."
B. "The peak flow meter measures your ability to exhale air from the lungs."
C. "Use the peak flow meter only when you feel symptoms of asthma."
D. "Record your peak flow measurements only during an asthma attack."

Answer: B

Sol:

· **"You should use the peak flow meter before meals to check your lung function."**: The timing of using a peak flow meter is not related to meals. It is generally recommended to use it at the same time each day, typically in the morning and evening, and during symptoms or asthma exacerbations for consistency in monitoring lung function.
· **"The peak flow meter measures your ability to exhale air from the lungs."**: A peak flow meter measures the peak expiratory flow rate (PEFR), which reflects the maximum speed at which air can be exhaled from the lungs. This helps assess airway narrowing or obstruction and is an important tool in managing asthma.
· **"Use the peak flow meter only when you feel symptoms of asthma."**: Peak flow meters should be used regularly to monitor lung function and detect changes even before symptoms occur. Regular monitoring can help identify early signs of worsening asthma.
· **"Record your peak flow measurements only during an asthma attack."**: Patients should record their peak flow measurements regularly, not just during asthma attacks. Regular tracking helps establish a baseline and identify trends in lung function over time, which is crucial for managing asthma.

Q.64 **A nurse is caring for a patient with hyperthyroidism. Which of the following is a common sign of this condition?**

A. Weight loss despite increased appetite
B. Cold intolerance and fatigue
C. Bradycardia and weight gain
D. Muscle weakness and slow reflexes

Answer: A

Sol:

· **Weight loss despite increased appetite**: A common sign of **hyperthyroidism** is **weight loss despite an increased appetite**. This occurs because the excess thyroid hormone (T3 and T4) increases the body's metabolism, causing the patient to burn more calories even if they are eating more. Hyperthyroidism can lead to symptoms like **unexplained weight loss**, **increased appetite**, **increased heart rate**, and **nervousness or irritability**.
· **Cold intolerance and fatigue**: **Cold intolerance** and **fatigue** are more commonly associated with **hypothyroidism** (an underactive thyroid), not hyperthyroidism. In hypothyroidism, the body's metabolism is slowed down, leading to feelings of cold and tiredness.

· **Bradycardia and weight gain**: **Bradycardia** (slowed heart rate) and **weight gain** are more often seen in **hypothyroidism** rather than hyperthyroidism. Hyperthyroidism usually causes symptoms such as **tachycardia** (increased heart rate), and **weight loss** rather than weight gain. In hyperthyroidism, the body's metabolic processes are accelerated.
· **Muscle weakness and slow reflexes**: **Muscle weakness** and **slow reflexes** are more commonly seen in **hypothyroidism**, where the decreased thyroid hormone levels lead to a slowed metabolic rate, causing muscle weakness, slower reflexes, and fatigue. These symptoms are not typical of hyperthyroidism.

Q.65 **A nurse is caring for a patient with a history of chronic obstructive pulmonary disease (COPD). Which of the following should the nurse monitor for as a sign of acute exacerbation?**

A. Decreased appetite and weight loss
B. Increased shortness of breath and wheezing
C. Reduced urine output and elevated blood pressure
D. Decreased cough and sputum production

Answer: B

Sol:

· **Decreased appetite and weight loss**: While **decreased appetite and weight loss** can be common in patients with chronic obstructive pulmonary disease (COPD), especially in the later stages, these are **not typical signs of an acute exacerbation**. An acute exacerbation of COPD usually manifests with symptoms that are more directly related to worsening airflow obstruction, such as increased difficulty breathing, wheezing, or increased sputum production.
· **Increased shortness of breath and wheezing**: **Increased shortness of breath and wheezing** are hallmark signs of an **acute exacerbation of COPD**. An exacerbation occurs when symptoms suddenly worsen, often due to an infection, environmental triggers, or other factors, leading to more severe shortness of breath, wheezing, and coughing. These are signs of worsening respiratory distress and increased obstruction in the airways, which requires prompt medical attention.
· **Reduced urine output and elevated blood pressure**: **Reduced urine output** and **elevated blood pressure** are more likely signs of **fluid retention** or **heart failure**, rather than an acute COPD exacerbation. While COPD can lead to heart issues, this set of symptoms is not typical for an exacerbation of the disease itself. COPD exacerbations primarily involve respiratory symptoms.
· **Decreased cough and sputum production**: A **decreased cough and sputum production** is unlikely to be seen in an **acute exacerbation of COPD**. During an exacerbation, patients often experience **increased cough and sputum production** as the body attempts to clear out irritants or infection from the lungs. A reduction in cough and sputum production is not a typical sign of worsening COPD and would not be a concern for an acute exacerbation.

Q.66 **A nurse is caring for a patient with a suspected myocardial infarction (MI). Which of the following findings is most commonly associated with MI?**

A. Hemoptysis
B. Crushing chest pain
C. Fever and chills
D. Swelling in the lower extremities

Answer: B

Sol:

· **Hemoptysis**: **Hemoptysis**, or coughing up blood, is not typically associated with a myocardial infarction (MI). It is more commonly seen in conditions such as lung infections, tuberculosis, or pulmonary embolism. MI usually presents with symptoms related to the heart, particularly chest pain or discomfort.
· **Crushing chest pain**: **Crushing chest pain** is a **classic sign** of **myocardial infarction (MI)**. This pain is often described as a heavy, squeezing, or pressure-like sensation in the chest that can radiate to the arms, back, neck, jaw, or stomach. It is one of the most common and defining symptoms of a heart attack, which occurs when blood flow to part of the heart muscle is blocked.
· **Fever and chills**: **Fever and chills** are not typically associated with myocardial infarction. These symptoms are more indicative of infections such as pneumonia, influenza, or other inflammatory conditions. Although mild fever can occur after an MI as part of the body's inflammatory response, it is not a primary or characteristic sign.
· **Swelling in the lower extremities**: **Swelling in the lower extremities** (edema) is often associated with **heart failure**, which may follow an MI in some cases if the heart's pumping function is compromised. However, it is not a primary symptom of an acute MI. The main symptoms of MI are related to chest pain, shortness of breath, nausea, and sweating, rather than peripheral edema.

Q.67 **A nurse is caring for a patient with diabetes and is preparing to administer insulin. Which of the following is an appropriate nursing action before administering insulin?**

A. Check the patient's blood glucose level
B. Ask the patient if they have eaten in the last hour
C. Administer insulin at the same time each day
D. Massage the injection site to promote absorption

Answer: A

Sol:

· **Check the patient's blood glucose level**: This is the **most appropriate nursing action** before administering insulin. Insulin should be given based on the patient's current blood glucose level to ensure that the correct dose is administered. This helps to prevent **hypoglycemia** (too low blood sugar) or **hyperglycemia** (too high blood sugar), which can occur if insulin is given without proper blood glucose monitoring. Checking the glucose level allows the nurse to make an informed decision about how much insulin to administer.
· **Ask the patient if they have eaten in the last hour**: While knowing if the patient has eaten can be important in determining the timing of insulin administration (especially with rapid-acting insulins), it is not as essential as checking the blood glucose level. The **blood glucose level** directly informs insulin needs, whereas asking about meals only provides partial information. Some insulin regimens are not necessarily linked to recent food intake.
· **Administer insulin at the same time each day**: Administering insulin at the same time each day can be part of a consistent treatment regimen, but it does not address the need to **check blood glucose** before administering insulin. **Consistency** in timing is helpful for managing blood sugar levels over the long term, but the **dosage of insulin should be adjusted** based on the current blood glucose level.
· **Massage the injection site to promote absorption**: **Massaging the injection site** is **not recommended** after insulin injections. Massaging can potentially affect the rate of absorption and may lead to erratic insulin action. It could also cause irritation at the injection site. **Proper rotation of injection sites** is a better strategy to promote consistent insulin absorption.

Q.68 **A nurse is caring for a patient who has just undergone a thyroidectomy. Which of the following complications should the nurse monitor for?**

A. Hypoglycemia
B. Hypocalcemia
C. Hyperkalemia
D. Hypernatremia

Answer: B

Sol:

· **Hypoglycemia**: Hypoglycemia is **not** typically a direct complication following a thyroidectomy. Thyroidectomy is related to hormone regulation and calcium balance, not directly to blood glucose levels. While stress or other factors could cause fluctuations in glucose levels, **hypoglycemia** is not a primary concern after thyroid surgery.
· **Hypocalcemia**: **Hypocalcemia** is a **common and serious complication** following thyroidectomy, especially if the **parathyroid glands** are accidentally damaged or removed during the surgery. The parathyroid glands regulate calcium levels in the body, and if they are affected during thyroid surgery, **calcium levels can drop**, leading to **hypocalcemia**. Symptoms include **muscle twitching**, **numbness or tingling in the fingers or around the mouth**, and **tetany** (involuntary muscle contractions). This is why calcium levels are closely monitored in patients post-thyroidectomy.
· **Hyperkalemia**: **Hyperkalemia**, or high potassium levels, is generally associated with conditions like **renal failure**, **medications (e.g., potassium-sparing diuretics)**, or **tissue injury**. It is not typically a direct complication of thyroidectomy. Therefore, it is not the primary concern in this situation.
· **Hypernatremia**: **Hypernatremia**, or high sodium levels, can occur in situations involving **dehydration** or **kidney dysfunction**, but it is not a common complication after a thyroidectomy. This condition is not usually associated with thyroid surgery or its immediate postoperative care.

Q.69 **A nurse is caring for a patient with cirrhosis. Which of the following is a common complication associated with cirrhosis?**

A. Increased blood sugar levels

B. Portal hypertension
C. Decreased urine output
D. Respiratory acidosis

Answer: B

Sol:

· **Increased blood sugar levels**: In cirrhosis, **increased blood sugar levels** are not typically a direct result. In fact, cirrhosis can sometimes lead to **hypoglycemia** due to the liver's reduced ability to store and release glucose. The liver plays a key role in maintaining normal blood sugar levels by releasing glucose from glycogen stores when needed. With cirrhosis, this function is impaired, which can lead to fluctuations in blood glucose levels. Therefore, **increased blood sugar** is not a common complication of cirrhosis.
· **Portal hypertension**: **Portal hypertension** is a **common complication** of cirrhosis. As liver tissue becomes scarred and damaged, blood flow through the liver becomes obstructed, leading to increased pressure in the **portal vein** (which carries blood from the intestines to the liver). This elevated pressure can result in a variety of complications, such as **varices** (swollen veins) in the esophagus or stomach, **ascites** (fluid accumulation in the abdomen), and an increased risk of **bleeding**. Portal hypertension is one of the key pathological features of cirrhosis.
· **Decreased urine output**: **Decreased urine output** is not a typical complication of cirrhosis itself, but it can occur in some situations, such as **hepatorenal syndrome**. This is a condition that can develop in severe cirrhosis where kidney function is impaired, but it is a secondary complication, not a direct consequence of cirrhosis. Therefore, while decreased urine output can occur, it is not as directly linked to cirrhosis as **portal hypertension** is.
· **Respiratory acidosis**: **Respiratory acidosis** occurs when there is a buildup of carbon dioxide in the blood due to inadequate breathing (e.g., respiratory depression, COPD). While cirrhosis can cause a variety of metabolic issues (such as **metabolic alkalosis** or **respiratory alkalosis** due to liver dysfunction), **respiratory acidosis** is not a common complication associated with cirrhosis. Respiratory acidosis is more often related to pulmonary issues rather than liver disease.

Q.70 **A nurse is providing discharge instructions to a patient who has been prescribed warfarin. Which of the following instructions should the nurse include?**

A. "Avoid foods rich in vitamin K, such as spinach and broccoli."
B. "You can stop the medication once your INR reaches 2.5."
C. "Take the medication at bedtime every day."
D. "Take an extra dose if you miss a dose."

Answer: A

Sol:

· **"Avoid foods rich in vitamin K, such as spinach and broccoli."**: Warfarin is an **anticoagulant** that works by inhibiting the action of vitamin K, which is necessary for blood clotting. Consuming foods rich in **vitamin K**, such as spinach, kale, broccoli, and other leafy greens, can interfere with the effectiveness of warfarin by counteracting its anticoagulant effects. Therefore, patients on warfarin should maintain a consistent intake of vitamin K, but **avoiding large fluctuations** in vitamin K intake is recommended. This helps to ensure that warfarin continues to work effectively. Hence, this statement is accurate.
· **"You can stop the medication once your INR reaches 2.5."**: Warfarin therapy is typically **long-term** for patients with conditions such as atrial fibrillation, deep vein thrombosis (DVT), or pulmonary embolism (PE). The goal of warfarin therapy is to maintain an **INR** (International Normalized Ratio) within a therapeutic range, which is often between **2.0 and 3.0**, depending on the patient's condition. Patients should **never stop taking warfarin** without consulting their healthcare provider, as stopping it prematurely can increase the risk of clot formation.
· **"Take the medication at bedtime every day."**: This statement is **not necessary** or **specific to warfarin**. While it's important to take warfarin at the same time every day to maintain consistent blood levels, the medication doesn't need to be taken specifically at **bedtime**. Patients can take it at any consistent time of day that suits their schedule, as long as it is taken consistently.
· **"Take an extra dose if you miss a dose."**: If a patient misses a dose of warfarin, they should **not** take an extra dose to compensate. Taking extra doses could increase the risk of **bleeding**. Instead, the patient should follow the instructions given by their healthcare provider, typically taking the missed dose as soon as they remember, or skipping it if it is close to the time of the next dose, without doubling up.

Q.71 **A nurse is caring for a patient who is receiving total parenteral nutrition (TPN). Which of the following is the priority nursing action?**

A. Monitor the patient's blood glucose levels
B. Administer the TPN infusion rapidly to avoid hypoglycemia
C. Check for allergic reactions to the TPN components
D. Limit fluid intake to reduce the risk of fluid overload

Answer: A

Sol:

· **Monitor the patient's blood glucose levels**: This is the priority nursing action when caring for a patient receiving total parenteral nutrition (TPN). TPN is a high-calorie, high-glucose solution that is administered intravenously. **Hyperglycemia** is a common side effect of TPN due to its high sugar content. **Hypoglycemia** can also occur if the TPN is suddenly stopped or if the infusion rate is too fast. Regular monitoring of blood glucose levels is crucial to detect any abnormal fluctuations and to ensure proper management. If the blood glucose level becomes too high or too low, adjustments to the infusion or additional interventions (like insulin administration) may be needed.
· **Administer the TPN infusion rapidly to avoid hypoglycemia**: TPN should **never** be administered rapidly. A rapid infusion can cause **hyperglycemia**, and abrupt changes in glucose levels can be harmful. TPN should be administered at a controlled, steady rate to avoid complications. If TPN is being discontinued, it is often necessary to switch to a **glucose-containing solution** (like D10 or D20) to prevent **hypoglycemia**.
· **Check for allergic reactions to the TPN components**: While it is important to check for allergic reactions, this is not the priority. **Allergic reactions** to TPN components are uncommon but can occur. If the patient is receiving TPN for the first time or has a known history of allergies to any component, it is important to monitor for signs of an allergic reaction, such as rash, fever, or difficulty breathing. However, **monitoring blood glucose** levels is more urgent, given the metabolic nature of TPN.
· **Limit fluid intake to reduce the risk of fluid overload**: While fluid overload can be a concern with TPN, especially in patients with **renal** or **cardiac** issues, it is not the primary concern in the early stages of TPN administration. Monitoring the patient's **fluid balance** is important, but the more immediate risk involves **glucose management**. If there are signs of fluid overload (such as swelling, shortness of breath, or changes in vital signs), the nurse should assess the patient and collaborate with the healthcare provider to adjust the TPN formulation or rate.

Q.72 **A nurse is caring for a patient post-laparoscopic cholecystectomy. Which of the following is a common complication following this procedure?**

A. Infection at the incision site
B. Deep vein thrombosis (DVT)
C. Bile duct injury
D. Pneumothorax

Answer: C

Sol:

· **Infection at the incision site**: Infection at the incision site is a possible complication after any surgical procedure, including a laparoscopic cholecystectomy. However, this is generally **not the most common complication**. Infections are typically prevented with sterile techniques during the procedure, and the use of prophylactic antibiotics may also be employed. While infection is possible, it is **not the most common complication** following laparoscopic cholecystectomy compared to bile duct injury.
· **Deep vein thrombosis (DVT)**: Deep vein thrombosis (DVT) is a potential complication of any surgery, particularly in patients who are immobile for extended periods. However, DVT is not the most common complication following laparoscopic cholecystectomy. The risk of DVT can be minimized with early mobilization, leg exercises, and possibly anticoagulant therapy in higher-risk patients. While DVT is an important consideration, **bile duct injury** is a more direct concern for this specific procedure.
· **Bile duct injury**: Bile duct injury is one of the most **common and serious complications** following a laparoscopic cholecystectomy. During the procedure, the gallbladder is removed, and the surgeon needs to carefully identify and avoid damaging the bile ducts. However, mistakes in identifying the bile ducts or anatomical variations can lead to injuries, which may require further surgery or other interventions to repair the damage. **Bile duct injury** can result in significant complications, such as bile leakage, infection, and the need for further procedures to repair the damage, making it the most critical complication to monitor for.
· **Pneumothorax**: A pneumothorax (air in the pleural space causing lung collapse) is **not a common complication** of laparoscopic cholecystectomy. While any surgery involving the abdominal or chest cavity could theoretically cause a pneumothorax (particularly if there is inadvertent injury to the diaphragm), it is a rare complication in laparoscopic cholecystectomy. The most common risks related to this surgery are those associated with the biliary system, such as **bile duct injury** or **infection**.

Q.73 **A nurse is caring for a patient who is prescribed a beta-blocker. The nurse should monitor the patient for which of the following side effects?**

A. Tachycardia
B. Bradycardia
C. Hypertension

D. Increased appetite

Answer: B

Sol: Beta-blockers work by blocking beta-adrenergic receptors in the heart, leading to a decreased heart rate, cardiac output, and blood pressure. As a result, **bradycardia** (slow heart rate) is a common and clinically significant side effect. Nurses must monitor the patient's pulse and blood pressure before administering each dose.

Explanation for Each Option:

- **(a) Tachycardia**
  Incorrect. Tachycardia is an increased heart rate. Beta-blockers reduce heart rate by inhibiting sympathetic stimulation.

- **(b) Bradycardia**
  Correct. Bradycardia is a well-known side effect due to the negative chronotropic effect (slowing the heart rate) of beta-blockers. Patients must be monitored to prevent dangerously slow rhythms.

- **(c) Hypertension**
  Incorrect. Beta-blockers are prescribed *to treat*hypertension, not cause it.

- **(d) Increased appetite**
  Incorrect. Increased appetite is not commonly associated with beta-blockers. If anything, some patients may experience fatigue or weight changes, but not due to appetite stimulation.

Q.74 **A nurse is caring for a patient with a history of seizures. The nurse should implement which of the following interventions during a seizure?**

A. Insert an airway to maintain an open airway
B. Restrain the patient to prevent injury
C. Position the patient on their side to prevent aspiration
D. Provide oral fluids to help with hydration

Answer: C

Sol:

· **Insert an airway to maintain an open airway**: Inserting an airway during a seizure is **not recommended** unless the seizure is prolonged and the healthcare provider has explicitly instructed this action. Inserting an airway can be dangerous, as there is a risk of injury to the patient's mouth or teeth. During a seizure, the priority is to **prevent injury** and maintain a **clear airway** without placing any objects in the mouth or airway.
· **Restrain the patient to prevent injury**: Restraint during a seizure is **not recommended**. Trying to restrain the patient could lead to injury, either for the patient or the caregiver. Instead, the nurse should focus on **protecting the patient** from injury by ensuring the environment is safe (e.g., moving nearby objects, cushioning the head) and allowing the seizure to run its course.
· **Position the patient on their side to prevent aspiration**: **This is the correct intervention.** Positioning the patient on their **side** is crucial during a seizure to help **prevent aspiration**. Seizures can cause the patient to lose control of their airway, and positioning them on their side allows fluids (such as saliva or vomit) to drain out of the mouth, reducing the risk of aspiration into the lungs. This position also allows easier access to the airway if the patient requires assistance after the seizure.
· **Provide oral fluids to help with hydration**: During a seizure, the patient is **unable to swallow safely**. Administering oral fluids during or immediately after a seizure could lead to **choking or aspiration**, which is a significant risk. Fluids should only be provided **after the seizure has ended**, and the patient is conscious, alert, and able to safely swallow.

Q.75 **A nurse is caring for a patient with a diagnosis of pneumonia. Which of the following is the most important intervention for the nurse to implement?**

A. Administer prescribed antibiotics and monitor for improvement
B. Restrict fluid intake to prevent fluid overload
C. Limit the patient's physical activity to promote rest
D. Keep the patient on strict bed rest until discharged

Answer: A

Sol:

· **Administer prescribed antibiotics and monitor for improvement**: This is the **most important intervention** for a patient with pneumonia. Pneumonia is an infection, typically caused by bacteria, and **antibiotics** are the cornerstone of treatment for bacterial pneumonia. The nurse should ensure the antibiotics are administered as prescribed and monitor the patient for improvement, such as improved breathing, reduced fever, and improved oxygenation. Monitoring is essential to assess whether the patient is responding to treatment or if further interventions are needed.
· **Restrict fluid intake to prevent fluid overload**: This is **not the priority intervention** for pneumonia. In fact, **adequate hydration** is important in managing pneumonia because it helps thin secretions, making them easier to expectorate, and supports overall respiratory function. Unless the patient has an underlying condition that would warrant fluid restriction (e.g., heart failure), restricting fluid intake is not appropriate for pneumonia management.
· **Limit the patient's physical activity to promote rest**: While it is important for the patient to rest and avoid overexertion, limiting physical activity is not the most **critical** intervention in pneumonia. The priority is to treat the infection and ensure the patient is receiving the proper antibiotics. Encouraging **mild activity** when appropriate (and as tolerated) can help prevent complications like deep vein thrombosis (DVT) and improve overall recovery, but it is not the most urgent concern.
· **Keep the patient on strict bed rest until discharged**: This is also **not necessary** unless the patient is severely ill. **Complete bed rest** is typically not required for most cases of pneumonia. Patients should be encouraged to **mobilize** and perform deep breathing exercises as tolerated to help prevent atelectasis and promote lung expansion. Restricting movement can lead to complications like muscle atrophy or blood clots, so early mobilization is often beneficial when the patient is stable.

Q.76 **A nurse is caring for a patient with a suspected stroke. Which of the following actions should the nurse take first?**

A. Administer oxygen
B. Perform a neurological assessment
C. Elevate the head of the bed
D. Obtain a CT scan of the brain

Answer: B

Sol:

· **Administer oxygen**: Oxygen administration may be necessary if the patient is showing signs of **hypoxia** or respiratory distress, but it is not the **first priority**. Oxygen should be administered after a neurological assessment if the patient is showing signs of decreased oxygen saturation or if respiratory compromise is noted. Ensuring adequate oxygenation is crucial, but the immediate need is to assess the patient's neurological status first.
· **Perform a neurological assessment**: The **first action** the nurse should take for a patient with a suspected stroke is to perform a **neurological assessment**. This helps determine the **extent of neurological impairment** and establish baseline data. It also provides essential information that can guide further interventions. Immediate neurological assessment helps identify the type of stroke (ischemic or hemorrhagic) and can provide critical clues for initiating treatment. It is also necessary for prioritizing interventions and informing the healthcare team, including the need for a CT scan or thrombolytic therapy.
· **Elevate the head of the bed**: Elevating the head of the bed might be helpful in some patients, especially if there are signs of **increased intracranial pressure (ICP)** or to improve ventilation in certain conditions. However, this is not the **first action**. Performing a neurological assessment should take precedence, as this guides the decision for further interventions.
· **Obtain a CT scan of the brain**: A **CT scan** is essential for diagnosing the type of stroke (ischemic or hemorrhagic) and determining the appropriate treatment. However, a **CT scan should not be the first action**. The initial step is to perform a neurological assessment to gather essential data and guide the medical team in making timely decisions regarding imaging and treatment, especially if the patient is eligible for thrombolytic therapy or other interventions.

Q.77 **A nurse is educating a patient with diabetes on insulin administration. Which of the following instructions is most important?**

A. "Rotate the injection sites to prevent lipodystrophy."
B. "Administer insulin in the thigh for faster absorption."
C. "Warm the insulin vial before each injection."
D. "Administer insulin after meals to control blood glucose levels."

Answer: A

Sol:

· **"Rotate the injection sites to prevent lipodystrophy."**: Rotating the injection sites is **the most important** instruction because it helps prevent **lipodystrophy**, a condition in which the fat tissue at the injection site becomes hardened or lumpy. This can occur when insulin is injected repeatedly into the same area. By rotating the injection sites, the nurse helps reduce the risk of tissue damage and improves insulin absorption. It is crucial for patients to rotate the sites between different areas (e.g., abdomen, thighs, and upper arms) to maintain skin health and effective insulin delivery.
· **"Administer insulin in the thigh for faster absorption."**: Insulin is typically absorbed more slowly in the thigh compared to the abdomen. The **abdomen** is generally the preferred site for insulin injection because it allows for **faster absorption**, which is particularly important for rapid-acting insulin. The thigh can be used, but it is not ideal for quicker absorption.
· **"Warm the insulin vial before each injection."**: Insulin should be **stored at room temperature** for up to a month, but it should not be **warmed up** before every injection. Warming insulin is not recommended because it can degrade the insulin's effectiveness. Patients should be advised to store insulin as per the manufacturer's guidelines and avoid exposing it to extreme temperatures.
· **"Administer insulin after meals to control blood glucose levels."**:This is **partially correct**, but not the most important guideline. The timing of insulin administration depends on the type of insulin being used. For example, **rapid-acting insulin** is typically administered **before meals** to control postprandial blood glucose levels. Administering insulin after meals may not effectively manage post-meal glucose spikes. However, the most important consideration for safe and effective insulin use is to **rotate injection sites** to prevent complications.

Q.78 **A nurse is providing care for a patient with a history of hypertension. Which of the following is an appropriate nursing intervention?**

A. Encourage the patient to reduce sodium intake
B. Limit the patient's physical activity
C. Avoid checking the patient's blood pressure
D. Increase fluid intake to prevent dehydration

Answer: A

Sol:

· **Encourage the patient to reduce sodium intake:** This is **the most appropriate** nursing intervention. Reducing sodium intake is a key lifestyle modification for managing **hypertension**. Excessive sodium intake can lead to water retention, which increases blood volume and raises blood pressure. The American Heart Association (AHA) recommends a sodium intake of no more than 2,300 mg per day (and ideally, 1,500 mg per day for most adults with hypertension). Encouraging patients to reduce sodium intake through diet (e.g., eating more fruits, vegetables, and whole grains) is a well-established method for controlling hypertension.
· **Limit the patient's physical activity:** Physical activity is actually beneficial for individuals with hypertension. Regular exercise helps lower blood pressure by improving heart health, reducing stress, and helping maintain a healthy weight. **Moderate exercise** (such as walking, swimming, or cycling) is often encouraged for patients with hypertension, unless contraindicated by other health issues. Limiting physical activity is not appropriate for hypertension management unless advised by a healthcare provider due to other conditions.
· **Avoid checking the patient's blood pressure:** Regular blood pressure monitoring is essential for managing hypertension. It helps assess the effectiveness of treatment and provides valuable information on whether the patient's blood pressure is under control. Nurses should encourage regular monitoring, either in the clinic or at home, to ensure blood pressure remains within a healthy range and to make adjustments to treatment if necessary.
· **Increase fluid intake to prevent dehydration:** This is **not an appropriate intervention** for hypertension. While staying hydrated is important for general health, **increased fluid intake is not directly related to the management of hypertension**. In fact, excessive fluid intake can potentially exacerbate the condition by increasing blood volume. The focus should be on **managing sodium intake, maintaining a healthy diet, and engaging in physical activity** to help control blood pressure.

Q.79 **A nurse is caring for a patient with a postoperative wound. Which of the following is an appropriate action to reduce the risk of infection?**

A. Clean the wound with soap and water every day
B. Change the dressing using clean technique
C. Apply a warm compress to the wound to improve circulation
D. Use antiseptic ointments to keep the wound moist

Answer: B

Sol: .

· **Clean the wound with soap and water every day:** while cleaning a wound is important, using **soap and water daily** can sometimes cause irritation or disrupt the natural healing process. Wounds should be cleaned as per the healthcare provider's instructions, but harsh scrubbing with soap may interfere with healing, especially if the wound is still in an early stage of healing. Typically, a mild cleanser or sterile saline is preferred, rather than soap and water.
· **Change the dressing using clean technique:** This is **the most appropriate** option. **Clean technique** (as opposed to sterile technique) is used for most postoperative wound care when there is no active infection or when the wound is not deep enough to require sterile dressing changes. Changing the dressing with clean technique reduces the risk of introducing bacteria to the wound and helps prevent infection. Proper hand hygiene, using clean gloves, and using clean dressings are crucial components of this process.
· **Apply a warm compress to the wound to improve circulation:** While warmth can promote circulation, **warm compresses** are not recommended for all types of postoperative wounds, as heat can sometimes exacerbate infection or increase the risk of complications. It is more important to keep the wound clean and dry and follow the healthcare provider's instructions regarding wound care.
· **Use antiseptic ointments to keep the wound moist.**: This is **not always the best option**. Some antiseptic ointments (such as those containing alcohol or iodine) can be drying or irritating, and their routine use may not always promote optimal healing. It's generally better to use an appropriate dressing to keep the wound moist and covered. In some cases, a healthcare provider may recommend an ointment or specific treatment, but it's important to follow those instructions carefully.

Q.80 **A nurse is caring for a patient who is receiving anticoagulant therapy. Which of the following should the nurse monitor for?**

A. Increased blood pressure
B. Bleeding or bruising
C. Increased heart rate
D. Fever and chills

Answer: B

Sol:

· **Increased blood pressure**: While changes in blood pressure could be a concern in some conditions, **increased blood pressure is not a direct effect** of anticoagulant therapy. Anticoagulants are used to prevent blood clotting, and high blood pressure (hypertension) is not a typical side effect. Therefore, monitoring for hypertension is not the priority in a patient receiving anticoagulant therapy.
· **Bleeding or bruising**: **Anticoagulants** (such as warfarin, heparin, or newer direct oral anticoagulants) increase the risk of **bleeding**, as they prevent the blood from clotting normally. Common signs of bleeding include unexplained bruising, nosebleeds, bleeding gums, blood in urine or stools, and excessive bleeding from minor cuts. Nurses should monitor closely for these signs in patients receiving anticoagulant therapy to prevent complications.
· **Increased heart rate**: While an **increased heart rate (tachycardia)** can occur in response to bleeding or anemia, it is **not a direct effect** of anticoagulant therapy. While bleeding could lead to tachycardia as a compensatory response to blood loss, it is not something that the nurse should primarily monitor for as part of anticoagulant therapy.
· **Fever and chills**: **Fever and chills** are not common side effects of anticoagulants. These symptoms are more indicative of **infection**. Although a patient on anticoagulant therapy could develop an infection, this is not the primary issue related to the use of anticoagulants, so the nurse should not primarily monitor for fever and chills in this case.

Q.81 **A nurse is caring for a patient with a history of diabetes mellitus and has recently started on metformin. Which of the following side effects should the nurse monitor for?**

A. Hyperglycemia
B. Hypoglycemia
C. Lactic acidosis
D. Weight gain

Answer: C

Sol:

· **Hyperglycemia**: Metformin is an oral **antidiabetic medication** that works to lower blood glucose levels, not raise them. It helps improve insulin sensitivity and reduce glucose production by the liver. **Hyperglycemia** (high blood sugar) is not a typical side effect of metformin. Therefore, it is not the main concern when a patient is on metformin.
· **Hypoglycemia**: While **hypoglycemia** (low blood sugar) can occur with certain diabetic medications, it is not typically a side effect of metformin alone. Metformin does not usually cause **hypoglycemia** unless used in combination with other medications that increase insulin production (such as sulfonylureas). However, it's always important to monitor blood sugar levels in diabetic patients.
· **Lactic acidosis**: One of the most **serious and potentially life-threatening side effects of metformin** is **lactic acidosis**, a condition where lactic acid builds up in the blood, leading to metabolic acidosis. It is rare but can occur, especially in patients with **renal insufficiency**, liver disease, or severe infections. Symptoms of lactic acidosis include fatigue, muscle pain, difficulty breathing, dizziness, and abdominal discomfort. The nurse should monitor for these signs, especially in high-risk patients.
· **Weight gain**: Unlike some other diabetes medications (like sulfonylureas or insulin), **metformin** is not typically associated with **weight gain**. In fact, metformin is often used to help with **weight management** in people with diabetes, as it may cause a slight reduction or neutral effect on weight. Weight gain is not a primary concern with metformin.

Q.82 **A nurse is caring for a patient who has been prescribed a bronchodilator. Which of the following is a common side effect of bronchodilators?**

A. Decreased heart rate
B. Bradycardia
C. Tachycardia
D. Hyperglycemia

Answer: C

Sol:

· **Decreased heart rate**: Bronchodilators typically do not cause a decreased heart rate. In fact, many bronchodilators can increase heart rate as part of their side effects. Therefore, this is not a common side effect.
· **Bradycardia**: **Bradycardia**, or a slow heart rate, is not typically associated with bronchodilators. In fact, **tachycardia** (an increased heart rate) is more common, particularly with beta-agonist bronchodilators.
· **Tachycardia**: **Tachycardia**, or an increased heart rate, is a common side effect of many **bronchodilators**, particularly **beta-agonist bronchodilators** (e.g., albuterol). These medications work by stimulating beta-2 receptors in the smooth muscles of the airways, leading to bronchodilation. However, they can also stimulate beta-1 receptors in the heart, causing an increase in heart rate. Tachycardia is a well-known side effect of these drugs.
· **Hyperglycemia**: **Hyperglycemia** (high blood sugar) can be a side effect of **long-term use** of certain bronchodilators, especially **steroidal** bronchodilators or if the patient has other underlying conditions like diabetes. However, it is **not** the most common or immediate side effect of bronchodilators in general.

Q.83 **A nurse is providing care to a patient with a history of asthma. Which of the following interventions should be included in the patient's care plan?**

A. Avoid administering beta-blockers
B. Encourage vigorous exercise to improve lung capacity
C. Recommend a high-sodium diet to help with fluid retention
D. Administer oxygen only when the patient becomes hypoxic

Answer: A

Sol: · **Avoid administering beta-blockers**: Beta-blockers, especially non-selective ones (e.g., propranolol), can block beta-2 receptors in the lungs, leading to bronchoconstriction. This can exacerbate asthma symptoms and potentially trigger an asthma attack. Therefore, it is important to avoid administering beta-blockers to patients with a history of asthma, unless absolutely necessary, and if so, using cardioselective beta-blockers that primarily affect the heart (e.g., metoprolol).
· **Encourage vigorous exercise to improve lung capacity**: While exercise is generally beneficial for people with asthma, **vigorous exercise** can potentially trigger asthma symptoms, especially if not properly managed with inhalers or other treatments before activity. It's important to recommend exercise tailored to the patient's tolerance and to avoid overexertion that could exacerbate symptoms.
· **Recommend a high-sodium diet to help with fluid retention**: A high-sodium diet is **not** recommended for patients with asthma, as excessive sodium intake can contribute to fluid retention, which might negatively affect respiratory function and overall health. Instead, a balanced diet that supports overall health is advisable.
· **Administer oxygen only when the patient becomes hypoxic**: While oxygen therapy may be necessary for hypoxic patients, it is not ideal to **only** administer oxygen when the patient becomes hypoxic. Proactive management, including the use of bronchodilators and anti-inflammatory medications as prescribed, is essential in asthma care. Oxygen therapy is typically given when a patient is already showing signs of hypoxia, but ongoing assessment and early intervention to prevent worsening asthma symptoms are crucial.

Q.84 **A nurse is caring for a patient after a stroke. Which of the following interventions should be prioritized to prevent complications?**

A. Encourage passive range of motion exercises for the affected limbs
B. Provide pain management for the patient's discomfort
C. Encourage the patient to drink large amounts of water
D. Limit family visits to allow rest

Answer: A

Sol:

· **Encourage passive range of motion exercises for the affected limbs**: After a stroke, the patient may experience weakness or paralysis on one side of the body (hemiparesis or hemiplegia). Encouraging **passive range of motion (ROM) exercises** for the affected limbs helps maintain joint flexibility, prevent contractures (permanent shortening of muscles or tendons), and improve circulation. These exercises are crucial to prevent complications such as muscle atrophy and joint stiffness, which can impair recovery and overall mobility.
· **Provide pain management for the patient's discomfort**: While managing **pain** is important for comfort, it does not directly address the prevention of complications that could arise after a stroke, such as immobility, respiratory issues, or thromboembolic events. Pain management should be part of overall care, but it is not the highest priority for preventing complications in the immediate post-stroke period.
· **Encourage the patient to drink large amounts of water**: Hydration is important, but encouraging **large amounts of water** without a specific need may not be appropriate. Stroke patients may have difficulty swallowing (dysphagia) and are at risk for aspiration. Fluid intake should be **monitored and managed** carefully, especially if dysphagia is present, to avoid choking and aspiration pneumonia. A more tailored approach to hydration is necessary.
· **Limit family visits to allow rest**: While allowing the patient to rest is important, **limiting family visits** is not a necessary intervention to prevent complications. Family visits can provide emotional support, which is beneficial for recovery. The priority is promoting mobility, preventing immobility complications, and addressing medical needs rather than limiting social interactions unless the patient is overwhelmed or exhausted.

Q.85 **A nurse is caring for a patient with a newly inserted central venous catheter (CVC). Which of the following is the priority action for the nurse to prevent complications?**

A. Monitor the patient for signs of infection at the insertion site
B. Ensure the catheter is flushed every 4 hours
C. Change the dressing every 48 hours
D. Place the patient in a prone position

Answer: A

Sol:

· **Monitor the patient for signs of infection at the insertion site**: The priority action is to monitor for signs of infection at the insertion site. **Infection** is a serious complication associated with central venous catheter (CVC) insertion. Signs of infection may include redness, swelling, warmth, or drainage at the insertion site, fever, or chills. Early detection and management of infection are crucial to preventing sepsis or other serious complications.
· **Ensure the catheter is flushed every 4 hours**: While flushing the catheter is important to prevent occlusion and maintain patency, **flushing every 4 hours** is not the most immediate priority action. Flushing should follow institution protocols, but preventing infection is a more immediate concern after CVC insertion.
· **Change the dressing every 48 hours**: Dressing changes are necessary to maintain hygiene and prevent infection, but the **timing of dressing changes** (every 48 hours) depends on the facility's protocol and the condition of the insertion site. The priority action is to monitor for infection rather than solely focusing on the dressing change interval. If signs of infection are noted, the dressing may need to be changed more frequently.
· **Place the patient in a prone position**: Placing the patient in a **prone position** is not an appropriate intervention for preventing complications related to a CVC. In fact, depending on the patient's clinical condition, they may need to be in a specific position for comfort, access, or respiratory support, but **prone positioning is not directly relevant to preventing CVC complications**.

Q.86 **A nurse is caring for a postoperative patient who is at risk for deep vein thrombosis (DVT). Which of the following interventions should the nurse implement?**

A. Place the patient in a supine position with both legs elevated
B. Encourage the patient to perform leg exercises every 2 hours
C. Administer anticoagulants immediately after surgery
D. Restrict fluid intake to reduce swelling

Answer: B

Sol:

· **Place the patient in a supine position with both legs elevated:** While elevating the legs can help reduce swelling in patients who have already developed edema, it is not a primary intervention for preventing deep vein thrombosis (DVT). Prolonged bed rest and inactivity increase the risk of DVT, so elevating the legs is not a recommended intervention for DVT prevention in postoperative patients. Instead, early mobilization is key.
· **Encourage the patient to perform leg exercises every 2 hours:** Performing leg exercises such as ankle pumps, knee flexion, and extension, or foot circles helps to promote circulation in the legs. This can help prevent the formation of blood clots by increasing venous return and decreasing stasis of blood in the lower extremities. Encouraging these exercises every 2 hours is an evidence-based intervention to reduce the risk of DVT in postoperative patients.
· **Administer anticoagulants immediately after surgery:** While anticoagulants are often prescribed to prevent DVT in certain postoperative patients, they are not typically administered immediately after surgery unless specifically indicated by the provider. The timing of anticoagulant administration depends on the type of surgery, patient risk factors, and clinical guidelines. This is a more specific intervention that would be determined by the healthcare provider, not a blanket measure for all patients at risk for DVT.
· **Restrict fluid intake to reduce swelling:** Restricting fluid intake is not an appropriate strategy for DVT prevention. In fact, dehydration can increase the risk of clot formation. Adequate hydration is important to maintain blood volume and prevent the blood from becoming more viscous, which could increase the risk of thrombosis.

Q.87 **A nurse is caring for a patient who is receiving hemodialysis. Which of the following should the nurse monitor for immediately after the procedure?**

A. Hypotension
B. Hyperkalemia
C. Increased heart rate
D. Increased temperature

Answer: A

Sol:

· **Hypotension**: Hypotension is a common complication immediately after hemodialysis. During the procedure, large amounts of fluid and electrolytes are removed, which can lead to a sudden drop in blood volume and blood pressure. The nurse should closely monitor the patient for symptoms such as dizziness, fainting, or weakness and manage this condition promptly with fluids or medication if necessary.
· **Hyperkalemia**: Hyperkalemia (elevated potassium levels) is not a common complication immediately after hemodialysis, as the procedure is specifically designed to remove excess potassium from the blood. If hyperkalemia is present after dialysis, it may indicate an issue with the dialysis process or insufficient potassium removal.
· **Increased heart rate**: While increased heart rate can occur as a compensatory mechanism due to hypotension, it is not a primary or specific complication of hemodialysis itself. Monitoring for hypotension is more critical as it directly influences heart rate changes.
· **Increased temperature**: Increased temperature is not typically seen immediately after hemodialysis unless there is an infection or reaction to the dialysis process, such as pyrogenic contamination of the dialysate. If an increased temperature occurs, it warrants investigation but is less common compared to hypotension.

Q.88 **A nurse is caring for a patient who is on intravenous (IV) antibiotics. The nurse notes redness, swelling, and warmth around the IV site. What is the most likely cause?**

A. Phlebitis
B. Infection
C. Hypotension
D. Electrolyte imbalance

Answer: A

Sol:

· **Phlebitis**: Phlebitis is the most likely cause of redness, swelling, and warmth around the IV site. It is an inflammation of the vein caused by mechanical irritation (movement of the catheter), chemical irritation (from the infused medication or fluid), or infection. The signs include localized redness, swelling, warmth, and tenderness at the site. If not addressed, it can lead to more serious complications, such as infection or thrombophlebitis.
· **Infection**: While infection is a potential complication of IV therapy, it usually manifests with more systemic signs, such as fever, chills, or purulent drainage, along with localized symptoms. The description given (redness, swelling, warmth) is more indicative of phlebitis rather than an active infection.
· **Hypotension**: Hypotension is unrelated to localized redness, swelling, or warmth at an IV site. It is a systemic condition characterized by low blood pressure, often due to fluid loss, sepsis, or cardiac issues, and does not present with localized symptoms like those described.
· **Electrolyte imbalance**: Electrolyte imbalances do not cause localized symptoms such as redness, swelling, or warmth around the IV site. They typically present with systemic symptoms like muscle cramps, fatigue, arrhythmias, or neurological disturbances, depending on the specific electrolyte affected.

Q.89 **A nurse is caring for a patient with a postoperative wound. Which of the following is the most important intervention to prevent wound infection?**

A. Perform hand hygiene before and after wound care
B. Apply a warm compress to the wound to promote healing
C. Change the dressing every 48 hours, regardless of the condition of the wound
D. Restrict fluid intake to prevent edema

Answer: A

Sol:

· **Perform hand hygiene before and after wound care**: Proper hand hygiene is the most important intervention to prevent wound infections. It minimizes the transfer of pathogens to the wound and reduces the risk of contamination during wound care. Hand hygiene is a cornerstone of infection control practices in all healthcare settings.
· **Apply a warm compress to the wound to promote healing**: While warm compresses may sometimes be used to improve circulation and promote healing in specific conditions, they are not a universal measure to prevent wound infections and may not be appropriate for all wounds. Additionally, improper use of warm compresses could introduce bacteria and increase the risk of infection.
· **Change the dressing every 48 hours, regardless of the condition of the wound**: Dressings should be changed based on the wound's condition and healthcare provider recommendations, not on a fixed schedule. Changing dressings unnecessarily can disrupt the wound's natural healing process and increase the risk of infection.
· **Restrict fluid intake to prevent edema**: Restricting fluid intake is not a standard intervention for preventing wound infection. Adequate hydration is essential for optimal wound healing, and restricting fluids unnecessarily could impair recovery.

Q.90 **A nurse is caring for a patient who is prescribed a calcium channel blocker for hypertension. Which of the following side effects should the nurse monitor for?**

A. Hypotension
B. Tachycardia
C. Increased appetite
D. Bradycardia

Answer: A

Sol:

· **Hypotension**: Calcium channel blockers (CCBs) work by relaxing the blood vessels, which reduces blood pressure. This vasodilation can lead to hypotension as a side effect, particularly when the patient changes position suddenly (orthostatic hypotension). The nurse should monitor the patient's blood pressure closely to prevent complications.
· **Tachycardia**: While some calcium channel blockers, such as dihydropyridines (e.g., amlodipine), can cause reflex tachycardia due to vasodilation, this is less common with non-dihydropyridine CCBs like verapamil or diltiazem. Tachycardia is not a general side effect of all calcium channel blockers.
· **Increased appetite**: Calcium channel blockers do not typically affect appetite. This is not a known or common side effect of the medication.
· **Bradycardia**: Certain calcium channel blockers, particularly non-dihydropyridines like verapamil and diltiazem, can cause bradycardia due to their effects on the heart's conduction system. However, this is less common with dihydropyridine CCBs, which primarily target blood vessels. Monitoring for bradycardia is necessary when using specific types of CCBs.

Q.91 **A nurse is caring for a patient with a history of seizures. Which of the following is the priority nursing intervention during a seizure?**

A. Restrain the patient's arms to prevent injury
B. Protect the patient from injury by placing padding around their head
C. Administer an anticonvulsant medication immediately
D. Hold the patient's tongue to prevent biting

Answer: B

Sol:

· **Restrain the patient's arms to prevent injury**: Restraining a patient during a seizure is not recommended as it can lead to additional injuries to the patient or caregiver. The nurse should allow the seizure to proceed while ensuring the patient is safe from harm.
· **Protect the patient from injury by placing padding around their head**:This is the priority intervention. During a seizure, the primary goal is to protect the patient from injury, particularly to the head. Placing padding around the head helps prevent trauma caused by uncontrolled movements. Ensuring the area around the patient is clear of sharp or harmful objects is also critical.
· **Administer an anticonvulsant medication immediately**: Administering medication is important for managing seizures but is not feasible or safe during an active seizure. Medications are typically given after the seizure ends or as a part of long-term management.
· **Hold the patient's tongue to prevent biting**: Attempting to hold the patient's tongue is dangerous and outdated advice. It increases the risk of injury to both the patient and the caregiver. Patients cannot swallow their tongues, and trying to hold the tongue may cause more harm, such as choking or oral injuries.

Q.92 **A nurse is caring for a patient who is receiving IV morphine for pain management. Which of the following is the most important intervention for the nurse to implement?**

A. Monitor the patient's blood pressure regularly
B. Encourage the patient to drink fluids to prevent dehydration
C. Perform a daily neurologic assessment
D. Assess the patient's respiratory rate and depth regularly

Answer: D

Sol:

· **Monitor the patient's blood pressure regularly**: Morphine can cause hypotension, so monitoring blood pressure is important. However, it is not the most critical intervention compared to monitoring respiratory function, as respiratory depression is the primary life-threatening side effect of opioid use.
· **Encourage the patient to drink fluids to prevent dehydration**: Staying hydrated is beneficial, especially since opioids can cause constipation. However, this is a secondary concern and does not address the most immediate risk associated with IV morphine use.
· **Perform a daily neurologic assessment**: Neurologic assessments are helpful in evaluating the patient's level of consciousness and detecting opioid-induced sedation. However, these assessments are not as urgent as monitoring respiratory function, which can rapidly become life-threatening.
· **Assess the patient's respiratory rate and depth regularly**: This is the most critical intervention. Morphine, like other opioids, can depress the respiratory center in the brain, leading to hypoventilation or respiratory arrest. Regularly monitoring respiratory rate and depth allows for early detection and intervention in case of respiratory compromise.

Q.93 **A nurse is educating a patient on the proper use of a metered-dose inhaler (MDI). Which of the following statements by the patient indicates that the teaching was effective?**

A. "I will inhale forcefully as I press down on the inhaler."
B. "I will hold my breath for 10 seconds after inhaling."
C. "I will use the inhaler every hour during an asthma attack."
D. "I will rinse my mouth with water immediately after using the inhaler."

Answer: B

Sol:

· **"I will inhale forcefully as I press down on the inhaler."**: because forceful inhalation is not necessary when using an MDI. Instead, the patient should take a slow, deep breath while pressing down on the inhaler to ensure proper delivery of the medication into the lungs.
· **"I will hold my breath for 10 seconds after inhaling.":** Holding the breath for about 10 seconds allows the medication to settle into the airways and ensures better absorption into the lungs. This is a key step in using an MDI effectively.
· **"I will use the inhaler every hour during an asthma attack."**:Overuse of an MDI, especially a rescue inhaler, can lead to adverse effects such as tachycardia, tremors, or worsening symptoms. The patient should follow the prescribed frequency and consult a healthcare provider if symptoms persist.
· **"I will rinse my mouth with water immediately after using the inhaler."**:Rinsing the mouth is necessary only when using inhalers that contain corticosteroids to prevent oral thrush. It is not required after using a metered-dose inhaler with bronchodilators.

Q.94 **A nurse is caring for a patient who is scheduled for a colonoscopy. Which of the following is the most important pre-procedure instruction for the nurse to give?**

A. "You must remain NPO for 6 hours before the procedure."
B. "You may drink clear liquids until 1 hour before the procedure."
C. "You should avoid drinking fluids for 12 hours prior to the procedure."
D. "You should eat a light breakfast on the day of the procedure."

Answer: A

Sol:

· **"You must remain NPO for 6 hours before the procedure."**:Patients undergoing a colonoscopy are typically required to remain NPO (nothing by mouth) for a specified period, often 6 hours, before the procedure. This helps ensure an empty stomach and reduces the risk of aspiration during sedation.
· **"You may drink clear liquids until 1 hour before the procedure."**:While clear liquids may be allowed up to a certain point the day before the procedure, they are usually stopped several hours before the colonoscopy to ensure the bowel is adequately prepped and clear. Drinking clear liquids until 1 hour before the procedure is against standard guidelines.
· **"You should avoid drinking fluids for 12 hours prior to the procedure."**:Prolonged avoidance of fluids (e.g., 12 hours) is unnecessary and may lead to dehydration. Clear liquids are generally allowed up until a specified cutoff time before the procedure.
· **"You should eat a light breakfast on the day of the procedure."**:Eating a light breakfast on the day of a colonoscopy is not recommended, as the bowel needs to be completely cleared for proper visualization, and the patient should remain NPO for a period prior to the procedure.

Q.95 **A nurse is educating a patient with hypertension about lifestyle changes. Which of the following recommendations should the nurse make?**

A. "Increase your sodium intake to help regulate blood pressure."
B. "Engage in physical activity for at least 30 minutes a day most days of the week."
C. "Limit your fluid intake to reduce strain on the heart."
D. "Avoid all types of fruits and vegetables that contain potassium."

Answer: B

Sol:

· **"Increase your sodium intake to help regulate blood pressure."**:Sodium intake should be reduced, not increased, as high sodium levels can contribute to hypertension by causing fluid retention and increasing blood pressure.
· **"Engage in physical activity for at least 30 minutes a day most days of the week."**:Regular physical activity is a key lifestyle modification to lower blood pressure and improve overall cardiovascular health. Aerobic exercises like walking, jogging, or swimming are particularly beneficial for patients with hypertension.
· **"Limit your fluid intake to reduce strain on the heart."**:Fluid intake is generally not restricted in hypertensive patients unless there is an accompanying condition like heart failure. Proper hydration supports overall health and helps maintain blood pressure balance.
· **"Avoid all types of fruits and vegetables that contain potassium."**: Potassium-rich foods like fruits and vegetables are beneficial for managing blood pressure as potassium helps counteract the effects of sodium. However, patients with kidney issues may need to monitor their potassium intake under medical advice.

Q.96 **A nurse is caring for a patient who is prescribed an opioid analgesic. Which of the following side effects should the nurse monitor for?**

A. Hyperactivity
B. Increased appetite
C. Constipation
D. Tachypnea

Answer: C

Sol:

· **Hyperactivity**: Hyperactivity is not a common side effect of opioid analgesics. On the contrary, opioids can cause sedation or drowsiness rather than increased activity levels.
· **Increased appetite**: Increased appetite is not associated with opioid use. Opioids often cause nausea, which may reduce appetite in some patients.
· **Constipation**: Constipation is one of the most common side effects of opioid analgesics. Opioids reduce gastrointestinal motility by binding to receptors in the gut, which slows down peristalsis and leads to hard, dry stools. Patients on opioids often require laxatives or stool softeners to manage this side effect.
· **Tachypnea**: Tachypnea (rapid breathing) is not a typical side effect of opioids. Instead, opioids can cause respiratory depression, characterized by a slow respiratory rate (bradypnea), which is a serious side effect that requires close monitoring.

Q.97 **A nurse is caring for a patient with chronic renal failure. Which of the following complications is the nurse most likely to encounter?**

A. Hyperkalemia
B. Hypoglycemia
C. Hypercalcemia
D. Hypernatremia

Answer: A

Sol:

· **Hyperkalemia**: Hyperkalemia (elevated potassium levels) is a common complication of chronic renal failure. The kidneys lose their ability to effectively excrete potassium, leading to its accumulation in the blood. Hyperkalemia can cause life-threatening cardiac arrhythmias, making it a critical condition to monitor and manage in patients with renal failure.
· **Hypoglycemia**: Hypoglycemia (low blood sugar) is not a typical complication of chronic renal failure. However, patients with diabetes and renal failure may experience altered glucose metabolism, but hyperglycemia is more commonly associated with decreased insulin clearance.
· **Hypercalcemia**: Hypercalcemia (elevated calcium levels) is not commonly associated with chronic renal failure. In fact, patients with chronic renal failure often experience **hypocalcemia** due to impaired activation of vitamin D and secondary hyperparathyroidism.
· **Hypernatremia**: Hypernatremia (elevated sodium levels) is not a typical complication of chronic renal failure. Instead, patients often develop hyponatremia due to fluid retention and dilution of sodium in the bloodstream.

Q.98 **A nurse is providing discharge teaching to a patient who has been prescribed a proton pump inhibitor (PPI) for gastroesophageal reflux disease (GERD). Which of the following statements indicates the patient understands the teaching?**

A. "I can take the medication with any type of food."
B. "I should take the medication 30 minutes before a meal."
C. "I will take the medication before bed."
D. "I can stop the medication when my symptoms improve."

Answer: B

Sol:

· **"I can take the medication with any type of food."**: Proton pump inhibitors (PPIs) are most effective when taken on an empty stomach, typically 30 minutes before a meal, as they need to suppress acid production triggered by food.
· **"I should take the medication 30 minutes before a meal."**: PPIs, such as omeprazole or pantoprazole, should be taken 30 minutes before a meal to allow the medication to inhibit the proton pumps in the stomach effectively, reducing acid production and alleviating GERD symptoms.
· **"I will take the medication before bed."**: PPIs are usually prescribed to be taken in the morning before breakfast for optimal effectiveness. In certain cases (e.g., nighttime acid reflux), the healthcare provider may recommend taking it before bed, but this is not the general rule.
· **"I can stop the medication when my symptoms improve."**: Stopping PPIs abruptly can lead to rebound acid hypersecretion, worsening GERD symptoms. The medication should be discontinued under the guidance of a healthcare provider, usually by tapering the dose.

Q.99 **The nurse is teaching a patient about the use of a peak flow meter for asthma management. Which statement by the patient indicates understanding of the teaching?**

A. I should use the peak flow meter once a week
B. I should use the peak flow meter during an asthma attack
C. I should use the peak flow meter every day when my asthma is stable
D. I should use the peak flow meter only when I am having trouble breathing.

Answer: C

Sol:

· **"I should use the peak flow meter once a week."**: Using a peak flow meter **once a week** is insufficient for effective asthma management. Patients with asthma should use the meter more frequently to monitor lung function, typically on a daily basis, especially when their asthma is stable. Weekly monitoring does not provide enough data to manage asthma proactively.
· **"I should use the peak flow meter during an asthma attack."**: While the peak flow meter can be used during an asthma attack, it is primarily used **regularly** to monitor lung function when the asthma is **stable**, in order to identify any changes or early signs of worsening symptoms before an attack occurs. During an active asthma attack, the patient should focus on **treating the attack** as prescribed, using a rescue inhaler or seeking emergency care if needed.
· **"I should use the peak flow meter every day when my asthma is stable."**: Regular daily use of the peak flow meter is important for asthma management. By measuring peak expiratory flow daily, the

patient can track their lung function and identify any early signs of asthma worsening. This proactive approach allows for adjustments in medications or actions before symptoms worsen significantly.
· **"I should use the peak flow meter only when I am having trouble breathing."**: Using the peak flow meter **only when experiencing trouble breathing** is not ideal. Monitoring peak flow regularly (even when breathing is normal) helps to detect subtle changes in lung function that may indicate worsening asthma. This allows for earlier intervention before breathing problems become severe.

Q.100 **What is a common cause of gastroesophageal reflux disease (GERD)?**

A. Excess stomach acid
B. Low fiber diet
C. Food allergies
D. High protein diet

Answer: A

Sol: **Answer:** (a) **Excess stomach acid**
Explanation: Gastroesophageal reflux disease (GERD) occurs when stomach acid frequently flows back into the esophagus. The primary cause is the malfunctioning of the **lower esophageal sphincter (LES)**, which allows **excess stomach acid** to move upward into the esophagus, leading to irritation and symptoms such as heartburn, regurgitation, and chest pain. Other factors, such as obesity, smoking, and certain foods (like fatty or acidic items), can aggravate GERD symptoms. While diet plays a role, **low fiber diet**.
