**Acid-Base Balance**

1. A client is brought to the emergency department after passing out in a local department store. The client reports having dieted by fasting for the last 5 days. Which acid–base imbalance would the nurse expect to assess in this client?

1. Respiratory acidosis

2. Respiratory alkalosis

3. Metabolic acidosis

4. Metabolic alkalosis

**Answer:**

3. Metabolic acidosis

**Rationale:**

A client who is fasting is at risk for development of metabolic acidosis. The body recognizes fasting as starvation and begins to metabolize its own proteins into ketones, which are metabolic acids. Starvation would not result in respiratory acidosis or alkalosis or in metabolic alkalosis.

**2.** Which of the following risk factors would be of concern to the nurse who is planning care for a group of clients with metabolic acidosis? (Select all that apply.)

1. Chronic obstructive pulmonary disease

2. Hypovolemic shock

3. Pneumonia

4. Abdominal fistulas

5. Acute renal failure

**Answer:**

2. Hypovolemic shock

4. Abdominal fistulas

5. Acute renal failure

**Rationale:**

Metabolic acidosis is rarely a primary disorder. It usually develops during the course of another disease such as shock, presence of abdominal fistulas, which can cause excess bicarbonate loss, and acute renal failure. Chronic obstructive pulmonary disease and pneumonia places the client at risk for respiratory acidosis with the increased retention of carbon dioxide in the blood.

3. A child with croup has an increased PaCO<SUB>2</SUB>, a decreased pH, and a normal H2CO<SUB>3</SUB> blood-gas value. The nurse interprets this as uncompensated:

<NL><ITEM><P><INST>1. </INST>Respiratory acidosis</P></ITEM>.

<ITEM><P><INST>2. </INST>Respiratory alkalosis</P></ITEM>.

<ITEM><P><INST>3. </INST>Metabolic acidosis</P></ITEM>.

<ITEM><P><INST>4. </INST>Metabolic alkalosis</P></ITEM></NL>.

**<P>Answer:** <NL><ITEM><P><INST>1. </INST>Respiratory acidosis</P></ITEM>.

**<P>Rationale:**

If the pH is decreased and the PaCO<SUB>2</SUB> is increased with a normal H2CO3</SUB>, it is uncompensated respiratory acidosis. In addition, croup can be a disease process that causes respiratory acidosis. Uncompensated respiratory alkalosis has an increased pH, decreased PaCO<SUB>2,</SUB> and normal H2CO3</SUB>. Uncompensated metabolic acidosis has a decreased pH, normal PaCO<SUB>2,</SUB> and normal H2CO3. </SUB>U.ncompensated metabolic alkalosis has an increased pH, normal PaCO<SUB>2</SUB>, and increased H2CO3</SUB>.

4. The client has a medical condition that often results in the development of metabolic acidosis. The nurse should observe this client for the development of which breathing pattern as a result of this condition?

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1. Cheyne-Stokes

2. Biot’s

3. Cluster

4. Kussmaul’s

**Answer:**

4. Kussmaul’s

**Rationale:**

Kussmaul’s respirations are a type of hyperventilation that accompanies metabolic acidosis. They represent the body’s attempt to compensate for the acidosis by “blowing off” carbon dioxide. Cheyne-Stokes respirations are commonly a result of congestive heart failure, increased intracranial pressure, or drug overdose. Cluster and Biot’s respirations are the same and are often the result of central nervous system disorders.

5. A client has been admitted with probable emphysema. Diagnostic tests have been ordered. Which of the tests will provide the most accurate indicator of the client’s acid–base balance?

1. Bronchoscopy

2. Sputum studies

3. Pulse oximetry

4. Arterial blood gases (ABGs)

**Answer:**

4. Arterial blood gases (ABGs)

**Rationale:**

ABGs are done to assess alterations in acid–base balance caused by respiratory disorders, metabolic disorders, or both. A bronchoscopy provides visualization of internal respiratory structures. Sputum studies can provide specific information about bacterial organisms. Pulse oximetry is a noninvasive test that evaluates the oxygen saturation level of blood.

6. The nurse is monitoring the urine specific gravity and pH on a child receiving chemotherapy. The nurse will try to maintain the urine values at:

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<NL><ITEM><P><INST>1. </INST>Spec gravity 1.030; pH 6.</P></ITEM>

<ITEM><P><INST>2. </INST>Spec gravity 1.030; pH 7.5.</P></ITEM>

<ITEM><P><INST>3. </INST>Spec gravity 1.005; pH 6.</P></ITEM>

<ITEM><P><INST>4. </INST>Spec gravity 1.005; pH 7.5.

**<P>Answer:**

<ITEM><P><INST>4. S</INST>SSSpec gravity 1.005; pH 7.5.

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**<P>Rationale:**

Because the breakdown of malignant cells releases intracellular components into the blood and electrolyte imbalance causes metabolic acidosis, the urine specific gravity should remain at less than 1.010 and the pH at 7 to 7.5. A specific gravity higher than 1.010 can mean fluid intake is not high enough, and a pH of less than 7 means acidosis.

7. The client who was diagnosed with diabetes mellitus 1 year ago is hospitalized in diabetic ketoacidosis after a religious fast. The client tells the nurse, “I have fasted during this season every year since I became an adult. I am not going to stop now.” The nurse is not knowledgeable about this particular religion. What is the best action for this nurse?

1. Tell the client that it is different now because of the diabetes.

2. Do some research into the meaning of fasting in this religion.

3. Ask family members of the same religion to discuss fasting with the client.

4. Request a consult from a diabetes educator.

**Answer**:

4. Request a consult from a diabetes educator.

**Rationale:**

The diabetes educator should be contacted to work with the client on strategies that might allow the fasting to occur in a safe manner. Telling the client that life is different now does not support religious beliefs. Research into the meaning of fasting in this religion would be educative for the nurse, but the client requires more immediate intervention. Asking the family to talk to the client might help, but the diabetes educator would be able to provide more direct and helpful information for the client.

8. The client is receiving sodium bicarbonate intravenously (IV) for correction of acidosis secondary to diabetic coma. The nurse assesses cyanosis, slow respirations, and irregular pulse. What is the nurse’s priority action?

1. Continue the infusion; the client is still in acidosis.

2. Increase the rate of the infusion and continue to assess the client for symptoms of acidosis.

3. Stop the infusion and notify the physician; the client is in alkalosis.

4. Decrease the rate of the infusion and continue to assess the client for symptoms of alkalosis.

**Answer**:

3. Stop the infusion and notify the physician; the client is in alkalosis.

**Rationale**:

The client receiving sodium bicarbonate is prone to alkalosis; monitor for cyanosis, slow respirations, and irregular pulse. The client’s symptoms indicate alkalosis so infusion must be stopped and the physician notified. The client is not in acidosis; symptoms of acidosis include lethargy, confusion, CNS depression leading to coma, and a deep, rapid respiration rate that indicates an attempt by the lungs to rid the body of excess acid. The client is not in acidosis, so the infusion must be stopped, not increased or decreased.

**Exemplar 1.1: Metabolic Acidosis**

1. The client’s arterial blood gas report reveals a pH of 6.58. How does the nurse evaluate this value?

1. There is a slight elevation.

2. This value is incompatible with life.

3. This is a low normal value.

4. This value is extremely elevated.

**Answer:**

2. This value is incompatible with life.

**Rationale:**

The body’s pH range is normally 7.35 to 7.45. Values lower than 6.8 or higher than 7.8 are generally considered incompatible with life. If the nurse assesses that this client is physiologically more stable than would be expected with this pH, the possibility of a lab error should be considered. An elevated pH would be greater than 7.45, and an extremely elevated pH would be much greater than 7/45. A low normal value would be closer to 7.35.

2. The mother of a 1-month-old infant calls the nurse who works in the health clinic. The mother is concerned because the infant has had vomiting and diarrhea for 2 days. What instruction should the nurse give this infant’s mother?

1. Bring the infant to the clinic for evaluation.

2. Give the infant at least 2 ounces of juice every 2 hours.

3. Measure the infant’s urine output for 24 hours.

4. Provide the infant with 50 mL of glucose water.

**Answer**:

1. Bring the infant to the clinic for evaluation.

**Rationale**:

Parents and caregivers need to be taught the seriousness of vomiting or diarrhea in infants due to rapid fluid loss that can occur in this age group. They should also be taught the importance of bringing an infant in this situation to health care providers for evaluation. Encouraging fluids for an infant who is actively vomiting will not improve fluid balance status, nor is juice or glucose water the best choice of fluid. Simply monitoring the loss over the next 24 hours would increase the potential for the infant to become dehydrated.

3. The nurse is assessing an African American client whose cultural background is different from the cultural background of the nurse. The client has symptoms of metabolic acidosis. Which of the following situations would illustrate prejudice on the nurse’s part?

1. Making an assumption that all members of each culture are alike

2. Understanding that all culture members will have the same beliefs

3. Bringing previous negative information and experiences into this situation

4. Taking general knowledge from literature and applying it to the situation

**Answer**:

3. Bringing previous negative information and experiences into this situation

**Rationale**:

Prejudice is a negative belief or preference that is generalized about a group, which leads to “prejudgment.” Prejudice occurs when the person making the judgment generalizes an experience of one individual from a culture to all members of that group. The other options describe stereotypical behavior, which is assuming that all members of a culture or ethnic group are alike.

4. The nurse is caring for a client who has been admitted with persistent diarrhea lasting 3 days. Which of the following is a priority nursing diagnosis for this client?

1. Risk for Infection

2. Decreased Cardiac Output

3. Knowledge Deficit

4. Pain

**Answer:**

2. Decreased Cardiac Output

**Rationale**:

Metabolic acidosis affects cardiac output by decreasing contractility, slowing the heart rate, and increasing the risk for dysrhythmias. While the client may be at risk for infection, a knowledge deficit, and pain, the potential for decreased cardiac output would be the priority nursing diagnosis in the acute phase.

5. The client who has been diagnosed with diabetes mellitus type 1 asks the nurse what this means. What is the best response by the nurse? (Select all that apply.)

1. “The exocrine function of your pancreas is to secrete insulin.”

2. “It means your pancreas cannot secrete insulin.”

3. “The endocrine function of your pancreas is to secrete insulin.”

4. “Your alpha cells should be able to secrete insulin, but cannot.”

5. “Without insulin you will develop ketoacidosis.”

**Answers**:

2. “It means your pancreas cannot secrete insulin.”

3. “The endocrine function of your pancreas is to secrete insulin.”

5. “Without insulin you will develop ketoacidosis.”

**Rationale**:

One function of the pancreas is to secrete insulin. The endocrine function of the pancreas is to secrete insulin. A consequence of diabetes mellitus type 1 is that without insulin, severe metabolic disturbances, such as diabetic ketoacidosis (DKA) will result. The endocrine, not the exocrine, function of the pancreas is to secrete insulin.Insulin is secreted by the beta, not the alpha, cells of the pancreas.

6. The nurse is caring for a client admitted with renal failure and metabolic acidosis. Which of the following signs would indicate to the nurse that planned interventions have been effective?

1. Increased deep tendon reflexes

2. Weight gain

3. Decreased respiratory rate

4. Palpitations

**Answer:**

3. Decreased respiratory rate

**Rationale**:

The client with metabolic acidosis will have an increased respiratory rate and depth. A sign that care has been effective would include a decrease in the rate and depth of respirations. Increased deep tendon reflexes, weight gain, and palpitations are not associated with metabolic acidosis.

7. The nurse is caring for the client experiencing hypovolemic shock and metabolic acidosis. Which of the following therapies would the nurse question if planned for this client?

1. Administration of sodium bicarbonate

2. Monitor ECG for conduction problems

3. Monitor daily weights

4. Limit the intake of fluids

**Answer:**

4. Limit the intake of fluids

**Rationale:**

The treatment for hypovolemic shock would include the administration of fluids, not limiting fluids. Administering sodium bicarbonate and monitoring daily weights and ECGs are all appropriate for the client with shock.

8. A client with metabolic acidosis has been admitted to the unit from the emergency room. Which of the following does the nurse implement as a priority of care for this client?

1. Administration of sodium bicarbonate.

2. Protect the client from injury.

3. Give the client skin care.

4. Place the client in a high-Fowler’s position

**Answer**:

2. Protect the client from injury

**Rationale**:

The client with metabolic acidosis may have symptoms of drowsiness, lethargy, confusion, and weakness. A priority of care would be preventing injury to the client. Medication administration is a physician order. Skin care would not be a priority on admission. The high-Fowler’s position would not be the safest position for the confused client.

**Exemplar 1.2: Metabolic Alkalosis**

1. The client has been vomiting for several days. What will the best assessment of the nurse include?

1. Respiratory acidosis

2. Respiratory alkalosis

3. Metabolic alkalosis

4. Metabolic acidosis

**Answer**:

3. Metabolic alkalosis

**Rationale**:

Metabolic alkalosis will result from excessive loss of hydrochloric acid from the stomach brought on by prolonged vomiting. Respiratory acidosis will not occur as a result of vomiting. Respiratory alkalosis will not occur as a result of vomiting. Metabolic acidosis will not occur as a result of vomiting.

2. The nurse is caring for a client who has been admitted with metabolic alkalosis. Which of the following data collected during the nursing assessment leads the nurse to conclude that the patient is at risk for this diagnosis?

1. The client takes ibuprophen for pain once a week.

2. The client takes a baby aspirin once daily.

3. The client frequently uses calcium carbonate (Tums®) for acid indigestion.

4. The client takes metformin daily.

**Answer:**

3. The client frequently uses calcium carbonate (Tums®) for acid indigestion.

**Rationale:**

Excessive use of calcium carbonate can cause metabolic alkalosis. Use of ibuprophen and metformin is not associated with alkalosis. Overuse of aspirin can be associated with metabolic acidosis.

3. An Asian-American adolescent is hospitalized following several days of vomiting following food poisoning. The nurse is planning to include which of the following points when teaching the client’s family? (Select all that apply.)

1. Signs and symptoms of metabolic alkalosis

2. Nutritional patterns of the adolescent

3. Proper food handling techniques

4. Immunizations for the adolescent

5. Normal laboratory values of the client

**Answers:**

1. Signs and symptoms of metabolic alkalosis

3. Proper food handling techniques

**Rationale**:

The family of anyone experiencing prolonged vomiting should be taught the signs and symptoms of metabolic alkalosis. In this case, the nurse would include teaching about proper methods of food handling to prevent further episodes of food poisoning. Food patterns of the adolescent are not the precipitating factor of the food poisoning, nor would immunizations prevent this disease. Unless the family asks, it is not necessary to teach normal laboratory findings.

4. The nurse is planning care for the client who has been admitted with metabolic alkalosis. Which of the following is a priority nursing diagnosis for this client?

1. Fluid Volume Excess

2. Risk for Impaired Gas Exchange

3. Risk for Hypothermia

4. Ineffective Health Maintenance

**Answer**:

2. Risk for Impaired Gas Exchange

**Rationale**:

Respiratory compensation for metabolic alkalosis includes depression of the respiratory rate and reduction of the depth of respirations leading to the retention of carbon dioxide. Clients with metabolic alkalosis often have an accompanying fluid volume deficit. With the fluid volume deficit, the client would experience hyperthermia. Ineffective health maintenance would not be a priority during the acute phase of the disease but, rather, a teaching opportunity before discharge depending on the cause of the metabolic alkalosis.

5. The nurse is planning care for the client who has been admitted with severe metabolic alkalosis. Which of the following interventions does the nurse plan for this client?

1. Walking outside on the hospital grounds twice each day

2. Bath, linen change, physical therapy, and ambulation each morning

3. Waiting for late afternoon to complete all nursing activities

4. Scheduling nursing activities to allow for periods of rest

**Answer:**

4. Scheduling nursing activities to allow for periods of rest

**Rationale**: The client with severe metabolic alkalosis is hypoxemic and has limited energy reserves. Spacing nursing activities throughout the day allows the client ample rest time. Scheduling activities all at the same time or that are too strenuous, such as walking outside, are not reasonable goals for the client in oxygen debt.

6. The nurse determines that teaching has been effective for the client with metabolic alkalosis if the client states which of the following?

1. “I will use only sodium bicarbonate as my antacid.”

2. “I will take antacids only for my gastric discomforts.”

3. “I will eat foods high in potassium while I am taking Lasix.”

4. “I will restrict my intake of fluids.”

**Answer:**

3. “I will eat foods high in potassium while I am taking Lasix.”

**Rationale**:

The client on Lasix (furosemide) may lose excess potassium and dispose the client toward metabolic alkalosis. The client is taught to refrain from the use of sodium antacids when prone to metabolic alkalosis. The client should consult with the primary care provider for gastric distress rather than self medication. The client who is prone to metabolic alkalosis is likely to have fluid deficits and would not be instructed to restrict fluids.

7. A client with severe metabolic alkalosis has been admitted to the unit and is being cared for by a nursing student along with the nurse. Which of the following does the nurse tell the student is a priority treatment for this client?

1. Determining the underlying cause of the metabolic alkalosis

2. Administering medication for metabolic alkalosis

3. Teaching the client the risk factors for metabolic alkalosis

4. Setting goals for the client with metabolic alkalosis

**Answer**:

1. Determining the underlying cause of the metabolic alkalosis

**Rationale**:

Metabolic alkalosis rarely occurs as a primary disorder and the priority would be to determine the underlying cause of the problem. Administering medications will be needed as a treatment, but the priority is to discover the cause. Teaching the client and setting goals are important aspects of nursing care but are not the priority.

8. A client who has had persistent vomiting for four days has been admitted to the unit. The nurse determines that the best position for this client is which of the following?

1. Right Sims position

2. Left side lying position

3. Semi-Fowler’s position

4. Prone position

**Answer**:

3. Semi-Fowler’s position

**Rationale**:

The client with prolonged vomiting will likely have severe metabolic alkalosis with reduced oxygenation. The semi-Fowler’s position will facilitate alveolar ventilation with improved oxygenation. Side-lying and prone positions do not facilitate needed lung expansion.

**Exemplar 1.3: Respiratory Acidosis**

1. The nurse has admitted a client who was brought to the hospital after a narcotic overdose. What acid–base imbalance does the nurse expect to observe in this client?

1. Respiratory acidosis

2. Respiratory alkalosis

3. Metabolic acidosis

4. Metabolic alkalosis

**Answer**:

1. Respiratory acidosis

**Rationale**:

Since narcotics generally act to decrease or suppress respirations, this client is probably hyperventilating. The expected acid–base imbalance would be respiratory acidosis. Respiratory alkalosis, metabolic acidosis, and metabolic alkalosis are caused by many conditions, none of which are related to this client’s narcotic overdose.

2. The nurse is caring for a client who has been admitted to the unit with respiratory failure and respiratory acidosis. Which data from the nursing history would the nurse suspect contributed to the client’s current state of health?

1. Thoracic spinal cord damage from an automobile accident

2. A recent trip to South America

3. Recent recovery from a cold virus

4. Use of ibuprophen for the control of pain

**Answer**:

1. Thoracic spinal cord damage from an automobile accident

**Rationale**:

Damage to the thoracic spine can cause neurological damage that could interfere with or depress ventilation and would put the client at risk for respiratory acidosis. A recent trip to South America would not constitute a respiratory risk factor. Recent recovery from a cold would not likely put the client at risk. Ibuprophen does not pose a threat to the respiratory health of the client.

3. A 10-year-old boy has been admitted to the hospital with respiratory acidosis. The nurse suspects that which of the following conditions most likely caused the child to develop this condition?

1. Noncompliance with type 2 diabetic medications

2. Severe diarrhea for several days

3. Obesity

4. Hyperthyroidism

**Answer**:

3. Obesity

**Rationale**:

The obese child may develop chest abnormalities and hypoventilation. Noncompliance with diabetic medications, severe diarrhea, and hyperthyroidism would all result in metabolic acidosis.

4. A client has been admitted to the unit following a partial thyroidectomy. The nurse anticipates which of the following as a nursing diagnosis for this client?

1. Impaired Memory

2. Anxiety

3. Impaired Mobility

4. Disturbed Personal Identity

**Answer**:

2. Anxiety

**Rationale**:

The client having a thyroidectomy will experience swelling of the neck and has the potential for an obstructed airway, which increases the anxiety level of the client. There is no evidence to support impaired memory, impaired mobility, or disturbed personal identity in this client.

5. A nurse is working with students on a medical unit. A client with respiratory acidosis is being monitored closely, and the nurse is able to describe to the students the pathophysiology surrounding this client’s condition as well as specific assessment findings. This nurse is demonstrating which type of knowledge?

1. Aesthetic

2. Empirical

3. Personal

4. Creative

**Answer**:

2. Empirical

**Rationale**:

Empirical knowing ranges from factual, observable phenomena to theoretical analysis. Empirical knowledge is systematic and helps to describe, explain, and predict phenomena. Aesthetic knowledge is the art of nursing and is expressed by nurses in their creativity and style in meeting the needs of clients. Personal knowledge is concerned with the knowing, encountering, and actualizing of the concrete, individual self. Creativity is part of aesthetic knowledge.

6. The nurse is caring for a client who is being mechanically ventilated. Arterial blood gas analysis reveals respiratory acidosis. Which change in ventilator settings would the nurse anticipate?

1. Decrease in oxygen delivery

2. Decreased tidal volume of each breath

3. Increased respiratory rate

4. Increase in humidification of inspired air

**Answer**:

3. Increased respiratory rate

**Rationale**:

This client needs to “blow off” more CO2; therefore, respiratory rate would be increased. No other option given would serve to decrease CO2 levels.

7. The nurse is preparing to admit a client with severe respiratory acidosis who is diagnosed with acute pneumonia. The nurse anticipates that one treatment for this client may be which of the following?

1. Administration of digoxin for heart failure

2. Mechanical ventilation

3. Fluid restriction

4. Regular diet

**Answer**:

2. Mechanical ventilation

**Rationale**:

The client with acute pneumonia and severe respiratory acidosis will most likely be placed on mechanical ventilation. There is not enough evidence to know whether or not the client is experiencing heart failure as a result of the acute pneumonia. Fluids would likely be increased to thin secretions. The client with severe respiratory acidosis will likely be NPO as the respirations will be rapid and shallow.

8. The nurse is providing care to a client who is recovering from severe respiratory acidosis and has recently been extubated. Which of the following actions by the nurse provides an optimum environment for this client?

1. Restraining the client

2. Placing the client in a side-lying position

3. Providing a calm, quiet environment

4. Administering narcotics for pain

**Answer**:

3. Providing a calm, quiet environment

**Rationale:**

The client with respiratory acidosis often experiences anxiety. This client would benefit from a calm, quiet environment in order to reduce stimulation and anxiety. Restraining the client will increase levels of agitation. The client with respiratory failure would benefit most by the semi-Fowler’s or Fowler’s position to increase ventilation. Narcotics will depress the respirations and increase respiratory acidosis. A non-narcotic pain reliever would be considered if this client is experiencing pain.

**Exemplar 1.4: Respiratory Alkalosis**

1. A client is admitted to the hospital with sudden, severe abdominal pain. Which of the following values in the arterial blood gas would the nurse expect?

1. pH is 7.33

2. PaCO2 is 28

3. H2CO3- is 30

4. PaO2 is 88

**Answer**:

2. PaCO2 is 28

**Rationale**:

Acute pain usually causes hyperventilation, which causes the CO2 to drop and the client to experience respiratory alkalosis. The pH would denote alkalosis and would be higher than 7.45. H2CO3- would trend downwards as the kidneys begin to compensate for the alkalosis by excreting H2CO3. The PaO2 is likely to be normal unless the client has been hyperventilating for a long time and is beginning to tire.

2. The client has been diagnosed with a severe anxiety disorder and has been admitted to the psychiatric unit for treatment. The nurse suspects that the client may experience which of the following on admission?

1. Vomiting and diarrhea

2. Memory loss

3. Hypoventilation

4. Respiratory alkalosis

**Answer**:

4. Respiratory alkalosis

**Rationale**: Anxiety disorders increase the risk for the acid-base imbalance respiratory alkalosis, due to hyperventilation that accompanies anxiety. The client with anxiety does not necessarily have vomiting, diarrhea, or memory loss as risk factors. Anxiety will lead to hyperventilation, not hypoventilation.

3. The nurse is caring for a client from a different culture who is dizzy and has an unsteady gait as a result of hyperventilation. The nurse overhears another employee, who has just moved to the city from the country, telling the client’s family that the client acts intoxicated. The nurse plans to speak to the new employee, realizing that the employee is experiencing which of the following?

1. Prejudice

2. Stereotyping

3. Discrimination

4. Culture shock

**Answer**:

4. Culture shock

**Rationale**:

Culture shock is a disorder that occurs in response to transition from one cultural setting to another. A person’s former behaviors are ineffective in such a setting, and basic cues for social behavior are absent. Since the question is an “at risk” scenario, this may not occur, but there is potential for the problem to exist. Prejudice is a negative belief or preference that is generalized about a group and leads to “prejudging.” Stereotyping is assuming that all members of a culture or ethnic group are alike. Discrimination occurs when a person acts on prejudice and denies another person one or more of the fundamental rights.

4. The nurse is planning care for a client who has been admitted to the unit experiencing severe acute pain. When preparing the plan of care, the nurse considers which of the following to be a priority nursing diagnosis?

1. Impaired Mobility

2. Ineffective Breathing Pattern

3. Risk for Injury

4. Powerlessness

**Answer**:

2. Ineffective Breathing Pattern

**Rationale**:

The client in severe acute pain is at risk for hyperventilation, which can lead to respiratory alkalosis. There is not enough information to know whether the client’s mobility is impaired. Risk for injury and powerlessness are diagnoses to be considered for this client, but the highest priority is respiratory function.

5. The client with an anxiety disorder is ready to be discharged from the unit. Which of the following will the nurse plan to teach this client and family in preparation for discharge? (Select all that apply.)

1. Have the client breathe into a paper bag when feeling anxious.

2. Have the client eat foods high in acid.

3. Instruct the client to breathe slowly.

4. Teach the client the signs of impending heart attack.

5. Refer the client for counseling.

**Answers**:

1. Have the client breathe into a paper bag when feeling anxious.

3. Instruct the client to breathe slowly.

5. Refer the client for counseling.

**Rationale**:

Teaching the client to breathe slowly or into a paper bag helps the client manage hyperventilation at home. The client with an anxiety disorder should be referred to counseling to assist with management of the disorder. Eating foods high in acid will not counteract the results of hyperventilation. The client should be taught that he/she is not experiencing a heart attack and that symptoms will abate when breathing returns to normal.

6. The nurse has completed discharge teaching for a client with an anxiety disorder. Which of the following indicates to the nurse that the client has understood discharge teaching regarding respiratory alkalosis?

1. “I will eat more bananas at breakfast.”

2. “I have signed up for a stress management class.”

3. “I will breather faster when I am feeling anxious.”

4. “I will not take antacids when I have heartburn.”

**Answer**:

2. “I have signed up for a stress management class.”

**Rationale**:

The client understands that reducing anxiety can reduce hyperventilation and respiratory alkalosis. Eating bananas is more appropriate for the client at risk for metabolic alkalosis who is on diuretics. Breathing faster will increase hyperventilation. Taking too many antacids is associated with metabolic alkalosis.

7. The nurse is preparing to admit a client who has been diagnosed with respiratory alkalosis secondary to a severe anxiety disorder. Which of the following assessment data by the nurse would suggest that the client’s condition is deteriorating?

1. Decreased rate of respirations

2. Increased level of consciousness

3. Positive Chvostek’s sign

4. Positive Moro response

**Answer**:

3. Positive Chvostek’s sign

**Rationale**:

The client with respiratory alkalosis should be monitored for signs of tetany as an indication of a deteriorating condition. A positive Chvostek’s sign would indicate that the client’s calcium levels are dropping and the client might have tetany. The client with alkalosis will have a decreased level of consciousness and increased respiratory rate. The Moro response is a method of assessing the newborn’s startle reflex.

8. A client with severe respiratory alkalosis manifested by numbness and tingling, palpitations, dyspnea, and a positive Trousseau’s sign is being admitted to the unit. Which of the following preparations for this client would be a high priority for the nurse?

1. Ordering a regular diet for the client

2. Instituting seizure precautions for the client

3. Ask respiratory therapy to set up a mechanical ventilator

4. Providing educational material for the client’s medical diagnosis

**Answer**:

2. Instituting seizure precautions for the client

**Rationale**:

The client with a positive Trousseau’s sign may have tetany and low calcium, making the client at risk for seizure activity. The safety of the client is a high nursing priority. Ordering the diet and instructing the respiratory therapist are done by the health care provider. Providing teaching for the client becomes a priority when the client is recovering from the illness.