For clients with chronic lung disease, discuss ways to avoid future episodes of acute respiratory failure. Encourage the client to be immunized against pneumococcal pneumonia and influenza. Discuss ways to avoid acute respiratory infections and measures to take when respiratory status is further compromised.

**THE CLIENT WITH RESPIRATORY ALKALOSIS**

Respiratory alkalosis is characterized by a pH greater than 7.45 and a PaCO₂ of less than 35 mmHg. It is always caused by hyperventilation leading to a carbon dioxide deficit.

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**Nursing Care Plan**

**A Client with Acute Respiratory Acidosis**

Marlene Hitz, age 76, is eating lunch with her friends when she suddenly begins to choke and is unable to breathe. After several minutes of trying, an attendant at the senior center successfully dislodges some meat caught in Ms. Hitz’s throat using the Heimlich maneuver. Ms. Hitz is taken by ambulance to the emergency department for follow-up because she was apneic for 3 to 4 minutes, her respirations are shallow, and she is disoriented.

**ASSESSMENT**

Ms. Hitz is placed in an observation room. Oxygen is started at 4 L/min per nasal cannula. David Love, the nurse admitting Ms. Hitz, makes the following assessments: T 98.2, P 102, R 36 and shallow, BP 146/92. Skin is warm and dry. Alert but restless and not oriented to time or place; she responds slowly to questions. Stat ABGs are drawn, a chest X-ray is done, and D5 ½ NS is started intravenously at 50 mL/hr.

The chest X-ray shows no abnormality. ABG results are pH 7.38 (normal: 7.35 to 7.45), PaCO₂ 48 mmHg (normal: 35 to 45 mmHg), PaO₂ 92 mmHg (normal: 80 to 100 mmHg), and HCO₃⁻ 24 mEq/L (normal: 22 to 26 mEq/L).

**DIAGNOSES**

- Impaired gas exchange related to temporary airway obstruction
- Anxiety related to emergency hospital admission
- Risk for injury related to confusion

**EXPECTED OUTCOMES**

- Regain normal gas exchange and ABG values.
- Be oriented to time, place, and person.

**PLANNING AND IMPLEMENTATION**

- Monitor ABGs, to be redrawn in 2 hours.
- Monitor vital signs and respiratory status (including oxygen saturation) every 15 minutes for the first hour then every hour.
- Assess color of skin, nail beds, and oral mucous membranes every hour.
- Assess mental status and orientation every hour.
- Monitor anxiety level as evidenced by restlessness and agitation.
- Maintain a calm, quiet environment.
- Provide reorientation and explain all activities.
- Keep side rails in place, and place call bell within reach.

**EVALUATION**

Ms. Hitz remains in the emergency department for 6 hours. Her ABGs are still abnormal, and David Love now notes the presence of respiratory crackles and wheezes. She is less anxious and responds appropriately when asked who and where she is. Because she has not regained normal gas exchange, Ms. Hitz is admitted to the hospital for continued observation and treatment.

**Critical Thinking in the Nursing Process**

1. Describe the pathophysiologic process that leads to acute respiratory acidosis in Marlene Hitz.
2. Describe the effect of acidosis on mental function.
3. What teaching would you provide to Marlene Hitz to prevent future episodes of choking?

See Evaluating Your Response in Appendix C.