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Arterial blood gas practice questions

Understanding arterial blood gas (ABG) interpretation is crucial for nursing students and healthcare professionals. It helps assess a patient’s respiratory and metabolic status. This guide provides an overview of ABG analysis, including examples, tables, and 50 practice questions to reinforce learning. ABG analysis is a diagnostic test that measures the levels of oxygen (O_2), carbon dioxide (CO_2), and the pH in arterial blood. It provides valuable information about a patient’s acid-base balance and respiratory function. Key components measured in an ABG test include: pH: Indicates the blood’s acidity or alkalinity (normal range: 7.35-7.45). $PaCO_2$: Partial pressure of carbon dioxide, reflecting respiratory function (normal range: 35-45 mmHg). HCO_3^-: Bicarbonate level, representing metabolic function (normal range: 22-26 mEq/L). PaO_2: Partial pressure of oxygen, showing oxygenation status (normal range: 80-100 mmHg). SaO_2: Oxygen saturation, indicating the percentage of hemoglobin saturated with oxygen (normal range: 95-100%). ABG interpretation involves a systematic approach: Examine the pH: 45 mmHg): Respiratory acidosis Low $PaCO_2$ (45: Respiratory acidosis,