

Section: Drug Reference
Subject: SODIUM BICARBONATE
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Sodium Bicarbonate

1. CLASSIFICATION
 - a. Electrolyte
 - b. Buffer
2. ACTIONS / DESCRIPTIONS
 - a. Reacts with hydrogen ions to form water and carbon dioxide
 - b. Buffers metabolic acidosis
3. INDICATIONS
 - a. Intubated patient with continued long arrest interval
 - b. Tricyclic antidepressant overdose
4. CONTRAINDICATIONS
 - a. Metabolic or respiratory alkalosis
5. PRECAUTIONS
 - a. Patients with heart failure
6. ADVERSE REACTIONS
 - a. Metabolic Alkalosis
 - b. Increases intracellular PCO_2 and increases tissue acidosis.
 - c. Produces CO_2 , which crosses cell membranes more rapidly than bicarbonate (potentially worsening intracellular acidosis).
 - d. Electrolyte imbalance
 - e. Tissue sloughing at injection site with extravasation
7. INFORMATIONAL/DISCUSSION POINTS
 - a. Adequate ventilation and CPR are the major "buffer agents" in cardiac arrest
 - b. Blood gas analysis should guide bicarbonate administration (pre-hospital).
 - c. When to use in tricyclic antidepressant overdose