Sodium Bicarbonate

GENERIC NAME

Sodium Bicarbonate

TRADE NAME

None

DESCRIPTION

Sodium bicarbonate is a salt that provides bicarbonate ions to buffer metabolic acidosis. It is used in several emergency situations, such as cardiac arrest, hyperkalemia, and tricyclic antidepressant overdose, to help restore acid-base balance.

HOW SUPPLIED

Prefilled syringe: 1 mEq/ml

INDICATIONS

- Tricyclic antidepressant overdose
- Suspected hyperkalemia
- Dialysis-related cardiac arrest
- Crush injury (Medical Control required)
- Cardiac arrest lasting longer than 10 minutes

CONTRAINDICATIONS

- Allergy or hypersensitivity to sodium bicarbonate

PRECAUTIONS

1. Sodium bicarbonate precipitates with Calcium Chloride. Flush the IV line with 10 ml of Normal Saline between administering these two medications.

MECHANISM OF ACTION

Sodium bicarbonate increases the alkalinity of the urine to enhance the excretion of tricyclic antidepressants. It also acts as a buffer, helping to reduce acidosis in emergency situations.

SIDE EFFECTS

- Few side effects when used appropriately in emergency settings

AUTHORIZATION

EMT: Not authorized

AEMT: Not authorized except for crush injury (Medical Control required)

Paramedic: Standing order

DOSAGE

Patient Type	Route	Dosage	Maximum Dosage
All patients (except crush injury)	IV/IO push	1 mEq/kg	Determined by patient response and clinical condition
Crush injury (Adult)	IV infusion	1,000 ml of ½ Normal Saline with 100 mEq of Sodium Bicarbonate, infused over 1 hour	Medical Control required
Crush injury (Pediatric)	IV infusion	Consult Medical Control for dosing	Medical Control required

Administration Notes:

- To prepare the infusion for crush injury, remove 100 ml from a 1,000 ml bag of Normal Saline, then inject 100 mEq of Sodium Bicarbonate and mix well.
- Monitor the patient’s electrolyte levels and acid-base status closely during administration.
- Adjust the dosage based on the patient’s clinical condition and response.

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