

Medication: Sodium Bicarbonate	PDN: 6909.05	Last Updated: June 20 2018	PMD: Andrew Travers*	PDC: Tanya Fraser*	Page 1 of 2
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SODIUM BICARBONATE (Bicarb)

1.0 Classification

- Alkalinizing agent; electrolyte

2.0 Mechanism of Action

- Increases plasma bicarbonate which buffers metabolic acidosis

3.0 Indications

- Cardiac arrest patients with pre-existing or suspected hyperkalemia (renal failure)
- Cardiac arrest patients with suspected ASA overdose
- Cardiac arrest patients with suspected DKA
- Sodium channel blocker overdose (e.g. Tricyclic Antidepressant overdose) with wide complex tachycardia, hemodynamic instability, or cardiac arrest

4.0 Contraindications

- None

5.0 Precautions

- It is important to maintain adequate ventilation to ensure CO₂ elimination
- Sodium bicarbonate deactivates epinephrine and dopamine therefore cannot be given through the same line
- Sodium bicarbonate should not be administered with calcium chloride simultaneously as a precipitate can form which may clog the line

6.0 Route

- May be given IV/IO

7.0 Dosage

Adult

- 1 mEq/kg initially, then 0.5 mEq/kg every 10 minutes as needed (persisting wide complex QRS, hemodynamic instability or cardiac arrest)

Pediatric

- 1 mEq/kg slow push, then 0.5 mEq/kg every 10 minutes as needed (persisting wide complex QRS, hemodynamic instability or cardiac arrest)

8.0 Supplied

- 50 mL preloaded syringe containing 50 mEq of sodium bicarbonate

9.0 May Be Given By

- In cardiac arrest: ICP/ACP/CCP
- For wide complex tachycardia due to sodium channel blocker OD: ICP (with order from Clinical Support Paramedic)/ACP/CCP

10.0 Adverse effects

- None

11.0 Special notes

- Irrigate the IV/IO line before and after infusion
- Patients may be placed on a sodium bicarbonate infusion during interfacility transfers for conditions such as TCA overdose or rhabdomyolysis
- Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

12.0 References

- Cardiac Arrest Adult Clinical Practice Guideline
- Toxicological Emergencies Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed

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