

SODIUM BICARBONATE

(Revised: November 2017)



TYPE:	Hypertonic alkaline solution – 8.4% sodium bicarbonate solution. Contains 1mMol/ml sodium and 1mMol/ml bicarbonate [no schedule]	
PRESENTATION:	50ml sodium bicarbonate solution – glass vial	
ACTIONS:	<ol style="list-style-type: none">1. Neutralises metabolic acidosis as a result of cardiac arrest or poor perfusion2. Causes movement of K⁺ into cells – swaps with H⁺ ions Onset IV: 30 – 60 seconds.	
USES:	ICP	1. Cardiac arrest secondary to cardioactive drug overdose or hyperkalaemia
	ICP	2. Prolonged cardiac arrest (>15 minutes)
	ICP	3. For emergency treatment of hyperkalaemia
	ICP	4. For treatment of arrhythmias, seizures or coma in overdose of cardioactive medications (e.g. tricyclics antidepressant, β blocker, digoxin)
	ICP	5. To combat acidosis and hyperkalaemia in crush syndrome
ADVERSE EFFECTS:	<ol style="list-style-type: none">1. Metabolic alkalosis2. High sodium content may lead to fluid overload and cardiac failure3. Interacts with some other drugs (especially calcium and adrenaline):<ul style="list-style-type: none">➤ always flush well through the line before and after administration➤ consider a second line	
CONTRA-INDICATION:	Known hypersensitivity	

continues over

SODIUM BICARBONATE – cont.



DOSES:

IN CARDIAC ARREST

(secondary to hyperkalaemia or cardioactive drug overdose;
prolonged arrest >15 minutes)

ADULT and PAEDIATRIC:

ICP 1mMol/kg IV or IO – fast push
No repeat

HYPERKALAEMIA with cardiac output

ADULT and PAEDIATRIC :

ICP 0.5mMol/kg IV or IO – over 2 to 5 minutes
May repeat once, if required

CARDIO-ACTIVE MEDICATION OVERDOSE

ADULT and PAEDIATRIC – 12-lead with wide QRS complex:

ICP 1mMol/kg IV or IO – over 30 to 60 seconds
May repeat once, if required.

SPECIAL NOTE:

always administer sodium bicarbonate to cardioactive medication overdose patients when in cardiac arrest.