

# SODIUM BICARBONATE

(Revised: November 2017)



<b>TYPE:</b>	Hypertonic alkaline solution – 8.4% sodium bicarbonate solution. Contains 1mMol/ml sodium and 1mMol/ml bicarbonate [no schedule]
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<b>PRESENTATION:</b>	50ml sodium bicarbonate solution – glass vial
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<b>ACTIONS:</b>	<ol style="list-style-type: none"><li>1. Neutralises metabolic acidosis as a result of cardiac arrest or poor perfusion</li><li>2. Causes movement of K<sup>+</sup> into cells – swaps with H<sup>+</sup> ions</li></ol> Onset IV: 30 – 60 seconds.
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<b>USES:</b>	<b>ICP</b>	1. Cardiac arrest secondary to cardioactive drug overdose or hyperkalaemia
	<b>ICP</b>	2. Prolonged cardiac arrest (>15 minutes)
	<b>ICP</b>	3. For emergency treatment of hyperkalaemia
	<b>ICP</b>	4. For treatment of arrhythmias, seizures or coma in overdose of cardioactive medications (e.g. tricyclics antidepressant, β blocker, digoxin)
	<b>ICP</b>	5. To combat acidosis and hyperkalaemia in crush syndrome

<b>ADVERSE EFFECTS:</b>	<ol style="list-style-type: none"><li>1. Metabolic alkalosis</li><li>2. High sodium content may lead to fluid overload and cardiac failure</li><li>3. Interacts with some other drugs (especially calcium and adrenaline):<ul style="list-style-type: none"><li>➤ always flush well through the line before and after administration</li><li>➤ consider a second line</li></ul></li></ol>
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<b>CONTRA-INDICATION:</b>	Known hypersensitivity
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**continues over**

## SODIUM BICARBONATE – cont.



### DOSES:

#### IN CARDIAC ARREST

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

ADULT and PAEDIATRIC:

<b>ICP</b>	1mMol/kg IV or IO – fast push No repeat
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#### HYPERKALAEMIA with cardiac output

ADULT and PAEDIATRIC :

<b>ICP</b>	0.5mMol/kg IV or IO – over 2 to 5 minutes May repeat once, if required
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#### CARDIO-ACTIVE MEDICATION OVERDOSE

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

<b>ICP</b>	1mMol/kg IV or IO – over 30 to 60 seconds May repeat once, if required.
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#### SPECIAL NOTE:

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