

# DRUG SAFETY NOTICE

## Supply Disruption

**DRUG NAME/STRENGTH/Form:**

### **SODIUM BICARBONATE 1.26% POLYFUSORS (Fresenius Kabi)**

#### **PROBLEM**

- Sodium bicarbonate 1.26% polyfusors are out of stock until further notice.

#### **ADVICE**

- Sodium bicarbonate for intravenous infusion is licensed for the treatment of metabolic acidosis and rapid urine alkalinisation.
- The volume, strength and rate of infusion will depend upon the requirements of individual patients. In less urgent forms of metabolic acidosis, an average dose for adults and older children is 2-5 mmol of bicarbonate per kg bodyweight, given over 4-8 hours. Subsequent doses should be adjusted to the individual patients' requirements.<sup>1</sup>
- Sodium bicarbonate 1.26% and 1.4% are suitable for peripheral administration. In non-emergencies, concentrations over 1.4% should be given via a central venous access device but in emergencies, higher concentrations (4.2% and 8.4%) may be given peripherally.<sup>2</sup>

#### **ALTERNATIVE**

- Pharmacy has no stock of the 1.26% Polyfusors and will not be able to procure further supplies.
- Sodium bicarbonate 1.4% Polyfusors will be available from Pharmacy from the 7<sup>th</sup> November 2023.
- In the interim where sodium bicarbonate 1.26% solution is required, sodium bicarbonate 8.4% (bicarbonate 1mmol/mL, sodium 1mmol/mL) may be diluted as outlined below.

**To prepare a solution of sodium bicarbonate 1.26%:**

1. Remove 75mls of glucose 5% from a 500ml infusion bag.
2. Draw up 75mls of sodium bicarbonate 8.4% injection and add to the remaining 425mls of glucose 5% in the infusion bag.
3. Mix well by inverting the bag 5 times.
4. Label bag stating strength and final volume i.e., sodium bicarbonate 1.26%, volume 500mL.
5. Do not mix any other drugs or fluids with sodium bicarbonate infusion.
6. Infuse the dose prescribed and discard the rest.

It should be noted that sodium bicarbonate infusions prepared in glucose 5% have a higher osmolarity (540-570mOsmol/L) than the Polyfusor® solution and may be more irritant to the vein, thus it should preferably be administered via a large vein.

Other diluents can be used (see Medusa) but additional sodium content and changes in the osmolarity of the solution should be taken into account.

**To prescribe the solution of sodium bicarbonate 1.26%:**

1. Select the sodium bicarbonate 8.4% in glucose 5% for infusion IV set

Age: 71 years	NHS: MRN: RXK4844807	Loc: BMEC Oph Adult
DOB: 04/08/1952	Sex: Male	Inpatient Waiting List FIN: 751604175
Resus:		Consultant: Rاوز , Saaeha
		P. Portal: No

  

Search:  Advanced Options Type:

- sodium bicarbonate
- sodium bicarbonate (mg oral capsule(s))
- sodium bicarbonate 1.26% intravenous solution
- sodium bicarbonate 1.26% intravenous solution (mL intraVENOUS infusion mL/hour hour - Valid for: 1 dose)
- sodium bicarbonate 1.4 % intravenous solution
- sodium bicarbonate 1.4 % intravenous solution (mL intraVENOUS infusion mL/hour hour - Valid for: 1 dose)
- sodium bicarbonate 4.2% (0.5 mmol/mL) injectable solution
- sodium bicarbonate 8.4% (1 mmol/mL) intravenous solution
- sodium bicarbonate 8.4% (1 mmol/mL) intravenous solution (mL intraVENOUS infusion mL/hour)
- sodium bicarbonate 8.4% (1 mmol/mL) intravenous solution (mL intraVENOUS infusion mL/hour hour - Valid...
- Sodium Bicarbonate 8.4% (1mmol/mL) for injection
- Sodium bicarbonate 8.4% (1mmol/mL) oral liquid
- Sodium bicarbonate 8.4% (1mmol/mL) oral liquid (mmol oral liquid)
- Sodium Bicarbonate 8.4% in Glucose 5% for infusion
- sodium biphosphate-sodium phosphate 18.1%-8% rectal enema
- sodium biphosphate-sodium phosphate 18.1%-8% rectal enema 1 dose rectal enema once ONLY
- Sodium level, blood
- Sodium Chloride 0.9% Bladder Irrigation 100mL
- Sodium Chloride 0.9% Bladder Irrigation 100mL 1 bag irrigation solution
- Sodium Chloride 0.9% Bladder Irrigation 3000mL
- Sodium Chloride 0.9% Bladder Irrigation 3000mL 1 bag irrigation solution
- Sodium valproate level, blood
- sodium cromoglicate 2% eye drops 1 drop both eyes FOUR times a day
- sodium thiosulfate 12.5 g intraVENOUS injection once ONLY To be administered over 10 minutes
- sodium hyaluronate 0.15% preservative-free eye drops HYABAK 1 drop both eyes
- sodium hyaluronate 0.2% preservative-free eye drops HYLOFORTE 1 drop both eyes

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2. Enter the rate required and ensure the infuse over time is correct.

Orders for Signature

Order Name	Status	Start	Details
BMEC Oph Adult Fin#:751604175			
Continuous			
Glucose 5% for Infusion Order 425 mL + Sodium Bic...		03/11/2023 11:13 GMT	425 mL intraVENOUS infusion mL/hour hour - START: 03/11/2023 11:13 GMT, 03/11/2023 11:13 GMT To prepare a solution of sodium bicarbonate 1.26% 1.Remove 75mLs of glucose 5% from a 500ml infusion bag 2.Draw up 75mLs of sodiu

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**Details for Glucose 5% for Infusion 425 mL + Sodium Bicarbonate 8.4% intravenous infusion 75 mL**

Details Continuous Details Diagnoses

Base Solution	Bag Volume	Rate	Infuse Over	
Glucose 5% for Infusion	425 mL	mL/hour	hour	
Additive	Additive Dose	Normalised Rate	Delivers	Occurrence
Sodium Bicarbonate 8.4% intravenous infusion 75 mL				EB
<b>Total Bag Volume</b>	<b>500 mL</b>			

Weight: 70 kg Weight Type: Clinical Weight Result dt/tm: 03/11/2023 10:43:00 GMT BSA

Infusion instructions  
To prepare a solution of sodium bicarbonate 1.26%

- Remove 75mLs of glucose 5% from a 500ml infusion bag
- Draw up 75mLs of sodium bicarbonate 8.4% injection and add to the remaining 425mLs of glucose 5% in the infusion bag
- Mix well by inverting the bag 5 times
- Label bag stating strength and final volume i.e. sodium bicarbonate 1.26%, volume 500mL.
- Do not mix any other drugs or fluids with sodium bicarbonate infusion.
- Infuse the dose prescribed and discard the rest.

2 Missing Required Details Dx Table

3. Sign the prescription.

4. Navigate to the drug chart and refresh to ensure the prescription is correct.

### ACTIONS

- Prescribers to be aware of the shortage of sodium bicarbonate 1.26% polyfusors and to use sodium bicarbonate 1.4% polyfusors where appropriate.
- Where 1.26% sodium bicarbonate solution is required, the 8.4% solution can be diluted as above to obtain the desired concentration.

### REFERENCES

- Fresenius Kabi Limited. Sodium Bicarbonate 1.26% solution for infusion. SPC, date of revision of the text 12/01/2015, accessed via MHRA, 9<sup>th</sup> December 2020
- Injectable Medicines Guide (Medusa). Sodium bicarbonate monograph. Reviewed 23<sup>rd</sup> January 2023

**FOR FURTHER INFORMATION CONTACT YOUR WARD BASED PHARMACY TEAM  
OR  
THE PHARMACY DEPARTMENT (CITY ext.5263; SANDWELL ext.3783).  
OUT OF HOURS CONTACT THE ON-CALL PHARMACIST**

**DATE OF ISSUE: 03.11.2023**

**REFERENCE NUMBER: 01-1123**

