

sodium bicarbonate

8.4% (1mmol/mL) amp, 7.5% (0.89mmol/mL) oral solution (WCH)

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Synonyms

NaHCO₃

sodium bicarbonate

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Dose and Indications

All doses are written in millimoles of sodium bicarbonate

Correcting Metabolic Acidosis

Intravenous

Determined by base deficit

Full Correction Dose(mmol) = $0.3 \times \text{base deficit (mmol/L)} \times \text{wt(kg)}$

Administer **half of the calculated dose**, and then assess the need for remainder.

Late Metabolic Acidosis

Oral

2mmol/kg daily

Preparation and Administration

Intravenous

Be sure to dilute the IV preparation prior to administration.

Dilute the 8.4% sodium bicarbonate solution with an equal volume of compatible fluid. The resulting solution contains 0.5mmol/mL sodium bicarbonate.

Dose	2mmol	4mmol	6mmol	8mmol	10mmol
Volume	4mL	8mL	12mL	16mL	20mL

Shake well to ensure thorough mixing.

Administered at a rate not exceeding 0.5mmol/kg/minute.

Discard remaining solution

Oral

The oral solution (WCH) contains 0.89 mmol/mL of sodium bicarbonate.

The intravenous preparation contains 1mmol/mL and may be given orally.

To minimise gastric irritation, give with feeds or dilute with equal volume water for injection.

Compatible Fluids

sodium bicarbonate

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Glucose 5%, 10% and Sodium Chloride 0.9%

Adverse Effects

Common

Local tissue necrosis if extravasation occurs.

Infrequent

Metabolic alkalosis (with excessive doses, too rapid administration, or in renal impairment)

Rare

Hypernatraemia (with excessive use)

Monitoring

- > Monitor acid/base status

Practice Points

- > Do NOT administer a concentration greater than 0.5mmol/mL nor inject at a rate faster than 0.5mmol/kg/minute.
- > Flush intravenous line before and after administration if the primary intravenous fluid contains calcium or phosphate as these will precipitate.
- > Do not give with any other intravenous drugs.
- > Hypernatraemia may result from excessive use.
- > Intracellular acidosis may worsen if administered during poor ventilation
- > Initial administration of half the calculated dose may minimise the sodium and fluid load. Adjust dose as indicated by serum bicarbonate.

Version control and change history

PDS reference: OCE use only

Version	Date from	Date to	Amendment
1.0	November 2012	current	Original version