Alberta Health Services

INFORMATION

Please distribute to all physicians, dentists, oral & maxillofacial surgeons and/or podiatrists.

Date: June 16, 2017

To: AHS Physicians

From: Dr. Francois Belanger, Vice President, Quality and Chief Medical Officer, AHS

Re: Emergent Drug Shortage – Sodium Bicarbonate injections

There is currently a critical shortage of sodium bicarbonate 8.4% (1 mmol/mL) 50 mL vials with the shortage anticipated to last until August 2017. Current sodium bicarbonate stocks will last for less than 1 week.

Sodium bicarbonate stocks have been pulled from most clinical areas, with the exception of Critical Care, Emergency Departments, Operating Rooms and Code Carts. Orders will not be processed by site pharmacy services without direct discussion with the attending physician.

Sodium bicarbonate pre-filled syringes for adult, pediatric and neonatal use are available via emergency order only. This shortage is also critical in the United States. While AHS is pursuing measures to increase available supply of sodium bicarbonate, strict restriction in usage is essential at this time. Substitution and conservation strategies are as follows:

Clinical Situation	Conservation Measure
Prevention of Contrast induced nephropathy	For all hydration therapy for contrast-induced nephropathy, use sodium chloride, not sodium bicarbonate (administration information can be found here).
Compounding PPI suspensions	Pharmacy will use or recommend alternatives
Diabetic Ketoacidosis	Do not use sodium bicarbonate unless pH < 7.0. For appropriate treatment, please consult the DKA knowledge topic here.
High Dose Methotrexate	Alternatives exist for urine alkalinization and CancerControl Leadership supports the use of oral sodium bicarbonate formulations or IV sodium acetate for this patient population. If your patient requires high dose methotrexate, please consult your clinical pharmacist to review potential options to IV sodium bicarbonate. For more information, contact Jennifer.jupp@ahs.ca
Hyperkalemia	Sodium bicarbonate works best when acidotic and hyperkalemic. Start with alternatives, obtain a blood gas. If wide QRS, use Calcium Chloride, insulin R 10 units, d50W IV, Salbutamol 10-15 mg via Nebule.
Lidocaine buffering	Inject slowly and avoid use of IV NaHCO3
Acidosis, non-severe	Treat underlying cause and avoid use of IV NaHCO3 whenever possible
Rhabdomyolysis	Do not use, as is not supported by evidence. Use hydration strategies for this patient population
Continuous Renal Replacement Therapy (CRRT)	Use of pre-made solution from Baxter Where appropriate, run CRRT rate faster to maintain pH
Poisonings that use sodium bicarbonate: QRS prolongation, ASA, Anion Gap metabolic acidosis and methotrexate.	Consult with PADIS at at 1-800-332-1414 for appropriate treatment

For more information, please contact pharmacy services at your site or the Zone Medical Leader on-call. Regular updates will be provided. Please share this information with your colleagues.

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Approved by: