Sodium citrate 8.8% oral solution for aspiration prophylaxis in caesarean section

SESLHDPR/473

POLICY STATEMENT

The Registered Nurse (RN) / Registered Midwife (RM) is authorised to instigate nurse/midwife initiated medication without an authorised prescriber's order under the specific circumstances set out in the **INDICATIONS** section and provided there are no contraindications present.

It is important for nursing and midwifery staff to remain aware that:

- Minor ailments may be symptoms of other more serious diseases or may be adverse reactions to medication already prescribed
- Nurse-initiated medication may interact with the patient's prescribed medication
- The maximum daily recommended dose of the medication must not be exceeded.[1]

The administering nurse/midwife must record the administration on an approved paper or electronic medication chart, clearly indicating that the medicine was nurse initiated.

If the patient continues to require the medication (i.e. more than two doses in 24 hours) then a medical officer (MO) must be consulted and a regular or PRN order obtained.

A change in the patient's condition such as newly occurring or increasing severity of symptoms must be reported to the MO and investigated.

INDICATIONS

Prevention of acid aspiration syndrome in adult obstetric patients undergoing elective or emergency caesarean section.

CONTRAINDICATIONS

Hypersensitivity to sodium citrate or citric acid.

PRECAUTIONS

Patients on sodium restriction (30 mL of sodium citrate 8.8% contains approximately 600 mg of sodium).

HISTORY/ASSESSMENT

Risk factors for aspiration include:

- Delayed gastric emptying due to administration of parenteral opioids during late pregnancy or opioids administered epidurally or intrathecally in labour
- Labour
- Food in the stomach
- Obesity

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PROTOCOL/ADMINISTRATION GUIDELINES

Caution: CHECK for allergies and/or contraindications			
Drug	**Dose**	**Route**	**Frequency**
Sodium citrate 8.8% (0.3 M)	**30 mL**	**Oral**	**Once**
Administer 30 mL of sodium citrate 8.8% up to 60 minutes before the induction of anaesthesia for elective or emergency caesarean section.			

MONITORING - POTENTIAL ADVERSE EFFECTS/INTERACTIONS

Sodium citrate may cause nausea.
There are no significant interactions reported with a single dose of sodium citrate 8.8%.

DOCUMENTATION

A record of the administration must be made on the approved paper or electronic medication chart noting that the medication was nurse initiated.

A further record of the medication administered including indication, dose and effect must be included in the patient's health care record.

PRACTICE POINTS

- Palatability may be improved by chilling the solution.
- The acid neutralising effect of sodium citrate appears to be very rapid in onset (within a few minutes) and its effect lasts up to one hour.
- In elective caesarean section, sodium citrate 8.8% should be given immediately before transfer to theatre. If surgery is delayed and the dose was given more than 60 minutes ago, then a repeat dose is recommended (seek advice from medical officer).

REFERENCES/FURTHER READING

1. PD2013_043 - Medication Handling in NSW Public Health Facilities
2. Gibbs, C.P, Spohr, L., & Schmidt, D. The effectiveness of sodium citrate as an antacid. Anesthesiology 1982;57:44-6
3. Kjaer K, Comerford M, Kondilis L, DiMaria L, Abramovitz S, Kiselev M, Samuels J, Gadalla F & Leighton BL 2006, 'Oral sodium citrate increases nausea amongst elective cesarean delivery patients', Can J Anesth, vol. 53, pp. 776-80.
4. Jasson J, Lefèvre G, Tallet F, Talafre ML, Legagneux F & Conseiller C 1989, [Oral administration of sodium citrate before general anesthesia in elective cesarean section. Effect on pH and gastric volume] Ann Fr Anesth Reanim, vol. 8, pp. 12-18.
5. Nimmo WS, Wilson J & Prescott LF 1975, 'Narcotic analgesics and delayed gastric emptying during labour', Lancet, vol. 1(7912), pp. 890-3.

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REVISION and APPROVAL HISTORY

Date	Revision Number	Author and Approval
July 2015	DRAFT	Pharmacy Department, Royal Hospital for Women
September 2015	1	Approved by SESLHD Drug & QUM Committee
May 2018	DRAFT 2	Reviewed by nursing and pharmacy staff. Minor wording updates made.
July 2018	2	Approved by SESLHD Quality Use of Medicines Committee
August 2021	DRAFT 3	Reviewed by nursing and pharmacy staff. No changes required.
September 2021	3	Approved by SESLHD Quality Use of Medicines Committee