Rectal washout for neonates in Newborn Intensive Care Unit (NICU)

Guideline Responsibilities and Authorisation

Department Responsible for Guideline	NICU
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Target Audience	Nurses
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Guideline Review History

Version	Updated by	Date Updated	Summary of Changes
3	Joyce Mok	July 2015	3-yearly review
4	Richard Pagdanganan	Oct 2018	3-yearly review
5	Richard Pagdanganan	Oct 2021	3 –yearly review

Rectal washout for neonates in Newborn Intensive Care Unit (NICU)

1 Overview

1.1 Purpose

To ensure the safe and effective instillation of fluid via the rectum to infants receiving a rectal washout.

1.2 Scope

Waikato DHB staff working in the Neonatal Intensive Care Unit (NICU).

1.3 Patient / client group

Neonates and infants in NICU.

1.4 Indications:

Rectal washouts are used to decompress the bowel and deflate the abdomen by removing gas and stool using small amounts of warmed 0.9% sodium chloride solution (saline) and a rectal tube. They must be ordered by the Surgical team, e.g.

- Babies with Hirschsprung's Disease
- To relieve low intestinal obstruction due to meconium plug, meconium ileus
- As a mode of temporary management in proven cases of Hirschsprung's Disease until surgery
- To prepare the bowel for surgery or investigation.
- Post stoma surgery distal loop washout (DLWO).

NOTE: Neonatal procedure must be performed initially by a surgeon and further washouts need to be ordered by the consulting surgical team following patient review.

1.5 Definitions*

CNS	Clinical Nurse Specialist
Hirschsprung Disease	A condition where sections of the bowel are missing nerve cells necessary to facilitate peristalsis (movement) of the bowel contents causing obstruction and build-up of bowel contents behind the blockage
Meconium Ileus	Bowel obstruction of the distal ileum due to accumulation of tarry, thick meconium. Often a result of enzyme deficiency, 90% of infants with this condition have cystic fibrosis. In others, the condition is associated with volvulus, atresia or perforation
Meconium Plug	This occurs more commonly in preterm infants or infant with central

	nervous system damage and hypotonia. Condition where obstruction (more common in lower colon or rectum) is the result of very thick meconium unrelated to enzyme deficiency
NNP	Neonatal Nurse Practitioner
Post stoma surgery distal loop washout (DLWO)	Can be used in conditions such as ano-rectal malformations and anomalies associated with a microcolon, to irrigate or distend the large intestine, when an ileostomy or colostomy has previously been formed. A catheter is passed through the mucus fistula (non-functioning stoma)

2 Clinical Management

2.1 Competency required

Registered Nurse who has completed Level 2 orientation.

2.2 Equipment

- Feeding tube/ Female catheter / Nelaton catheter — Weight < 2kg Size 10Fr Insert to 2-3 cm; Weight > 2kg Size 10-14Fr Insert to 5 cm

  NOTE: Female catheters are kept in store room.

  (These are approximate guides please ensure individualised surgical instructions are requested, 14Fr often the preferred size, kept in storeroom)
- BD syringe 60ml
- Lubricant (water based)
- Sodium chloride 0.9% ampoules (pre-warmed in warm water bath)
- Incontinence -sheet
- Container to collect returning fluid
- Personal protective equipment, e.g. non-sterile gloves, gown or apron

2.3 Guideline

2.3.1 Check medical orders

- Check infant's daily orders chart and clinical notes for surgical instructions for bowel washout.
- Must be ordered and documented by surgical team to ensure procedure is surgically indicated and appropriate for infant size and condition.
- Check with surgical team for any specific instructions, e.g. the amount of sodium chloride 0.9% to be instilled = calculated as 10ml/kg, frequency, size of catheter, length to be inserted

2.3.2 Preparation of equipment

- Explain the procedure to the parents/carers.
- Collect equipment and assemble on a clean field
- Ask for assistance from a colleague or parent as appropriate because bigger babies can be active and require extra assistance for positioning and procedure.
- Warm sodium chloride 0.9% ampoules by placing in a container of warm water. Cold solution can cause infant core temperature to drop, particularly in pre-term infant.
- Give Sucrose orally and offer a pacifier with parental consent prior to the procedure.

2.3.3 Positioning infant

- Perform hand hygiene.
- Put on gown or apron and don gloves.
- Undress the infant and swaddle the upper part of the body.
- Place incontinent sheet under baby with new nappy to protect bed linen.
- Position infant, usually supine with legs in frog position to facilitate easy and comfortable tube insertion.

2.3.4 Inserting catheter

- Prime catheter with warm saline solution.
- Lubricate end of catheter, locate the anus and gently insert to appropriate distance into rectum, not more than 5cm for term infants.
- Care must be taken not to damage delicate rectal mucosa.
- Do not use excessive force if resistance is felt; inform NNP/CNS/Registrar if unsure.
- Do not aspirate tube while inserted in rectum to reduce risk of mucosal damage.

2.3.5 Instilling sodium chloride 0.9%

- Instil sodium chloride 0.9%in 10ml aliquots over 1-2 minutes by pushing gently on plunger of syringe (there should be no resistance when injecting saline).
- Contact medical staff if resistance is met or unsure.

NOTE:

- No more than 10ml aliquot of warm sodium chloride 0.9% should be instilled at one time. For preterm babies, surgical team should prescribe and document in the clinical notes the amount of sodium chloride 0.9% to be used.

2.3.6 Washout

- Remove syringe and let fluid run into the nappy until clear to allow passive evacuation of contents. May require
- Procedure may need to be repeated twice if return is not clear.

2.3.7 On completion

- Remove catheter from rectum and weigh nappy to assess amount of fluid return.
- Document results of bowel washout on fluid balance chart and clinical notes. Record volume of saline retained and consider taking blood to check electrolytes, if clinical situation is appropriate.

2.4 Potential complications

- There is a risk of reabsorption of saline, especially if most of the solution is not expelled.

  In the case of retention of instilled solution

  - contact the surgical/neonatal team
  - record volume of saline retained
  - consider taking blood to check electrolytes, if clinical situation is appropriate
- Bowel perforation
- Nausea and vomiting
- Abdominal discomfort

3 Evidence base

3.1 Bibliography

- Natalie Ron (2021) Paediatric Surgical Registrar. Personal communication – 23rd October 2021

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- Nursing Clinical Effectiveness Committee (2019). Bowel Washout (rectal). Retrieved from https://www.rch.org.au/rchcpg/hospital_clinical_guideline_index/Bowel_washout_rectal/

- Rowe, J. Stewart, L. (2021). Bowel washout for a child. Retrieved from https://starship.org.nz/guidelines/bowel-washout-for-a-child/

3.2 Associated Waikato DHB Document

- Waikato DHB NICU Nursing Guideline: Neonatal Pain and Sedation - Assessment and Nursing Management in Newborn Intensive Care Unit (NICU) (1684).
- Waikato DHB NICU Drug Manual