Royal Hospital for Women (RHW)
NEONATAL BUSINESS RULE
COVER SHEET

Health
South Eastern Sydney
Local Health District

Ref: T25/47651

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EXECUTIVE SPONSOR	Sally Wise, Nursing Co- Director Neonatal Services Srinivas Bolisetty, Medical Co- Director Neonatal Services
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SUMMARY	To guide clinicians in the management and care of neonates with a stoma formation.
Key Words	Stoma, colostomy, ileostomy, neonate, stoma bag, stoma care, ostomy

Contents

Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

A stoma from the gastrointestinal (GI) tract is performed to form a colostomy, ileostomy or jejunostomy. The stoma formation may be in response to a single congenital malformation or in the context of a more complex condition. The majority of stomal surgeries that are

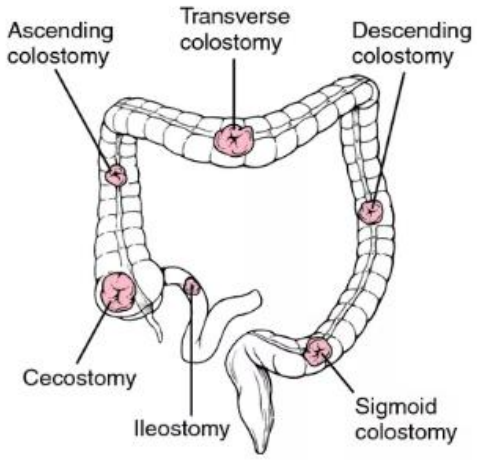
performed on neonates are reversible. The length of time that the stoma is required varies from weeks to months dependant on the initial diagnosis and subsequent management.

The types of conditions that may require a stoma formation are[1]:

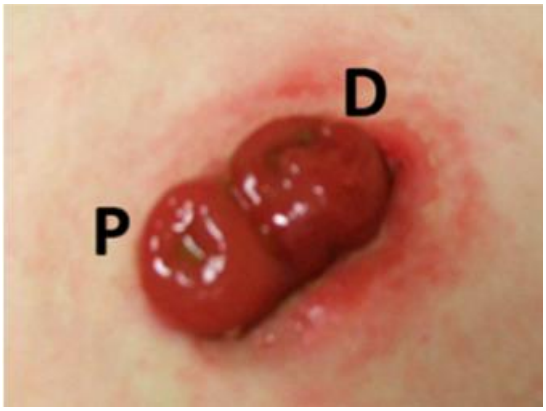
- Hirschsprung disease
- Imperforate Anus/ Anorectal Malformation.
- Necrotising Enterocolitis (NEC)
- Intestinal Atresia (duodenal/jejunal)
- Intestinal Malrotation
- Spontaneous ileal perforation
- Meconium ileus (Cystic Fibrosis)
- Gastroschisis

1.1 Definitions (Picture 1)[1]

Stoma	A surgically created opening in the gastrointestinal tract.
Ostomy	A surgically created opening on the body.
Colostomy	Bowel diversion of the colon, it may be formed from any section of the large bowel. The output will be semi-liquid to paste consistency.
Ileostomy	Bowel diversion of the small intestine. The output will be semi-liquid to paste consistency.
Jejunostomy	Bowel diversion of the proximal small intestine. Output maybe very watery and corrosive.
Mucous Fistula	The other end of the non-functioning bowel brought through the abdomen – the distal bowel end.



Potential Stoma Locations
Picture 1



Double barrelled stoma (P= proximal, D=distal)

Picture 2

1.2 Types of stomas[2]

- Double-barrelled (Picture 2): usually a temporary ostomy with two openings, one distal and one proximal. Elimination occurs via the proximal opening, with the distal portion of the bowel able to rest and heal. When healing is complete, the two ends are re-anastomosed and returned to the peritoneal cavity with the aim of returning bowel function.
- Loop: a loop of the bowel is brought through an opening in the abdominal wall, with an opening created in the apex of the bowel to allow emptying of contents.
- End: The bowel is completely separated and bought out as an end. There will be only one stoma seen on the abdomen. The other end of the bowel can be bought out as a mucous fistula or completely closed over and left in the abdomen

Note
Staff should be aware of the functioning stoma (proximal stoma) and the distal stoma or mucous fistula (non functioning stoma). Reviewing the the operation report will identify what stoma is medial and what stoma is lateral on the abdomen.

2 RESPONSIBILITIES

2.1 Staff

2.1.1 NCC Medical staff – identify neonates that may require a stoma formation, to refer neonates to Sydney Children's Hospital (SCH) Paediatric surgical team for consultation and management, to manage neonates who have had a stoma formation, identify neonates that may require N-acetylcysteine (NAC) 20% or replacement fluids and prescribe same, to manage any complications.

2.1.2 SCH Paediatric Surgical team – provide consultation for neonates that may require stoma formation, to perform stoma formation surgery on neonates, provide post-operative instructions, review and manage neonates who have had a stoma formation in consultation with NCC medical staff, POWH Stomal CNC and NCC nursing staff.

2.1.3 POWH Stomal CNC – manage neonates who have had a stoma formation in consultation with NCC medical staff, SCH Paediatric Surgical team and NCC nursing staff. Provide education and support to parent/carers relating to stomas and provide stoma education and support to NICU nursing and medical staff.

2.1.4 NCC Nursing staff– inform Stoma CNC of any neonate that has had a stoma formed, to follow post-operative instructions relating to stoma care, to manage neonates who have had a stoma formation, administer NAC 20% if required and identify and manage any complication that may arise in consultation with the appropriate teams. Nursing staff are expected to provide education and support to parent/carers relating to stomas.

3 PROCEDURE

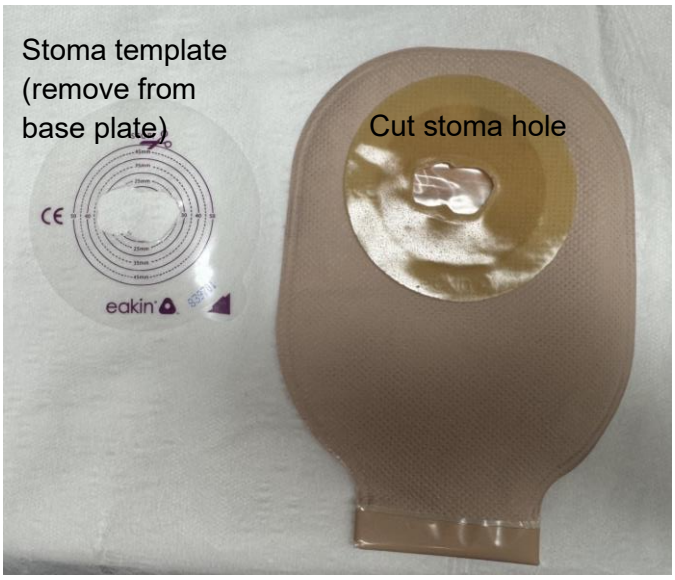
3.1 Equipment

3.1.1 Post-operative

- Jelonet® dressing
- Non-adhesive dressing
- Mepitac® adhesive tapes

3.1.2 Stoma bag application or bag change

- Appropriate sized stoma bag with precut stoma template and fabric pouch covering removed (neonate or paediatric size) (Picture 3 & 4)
- Scissors and pen
- Barrier ring
- Adhesive remover no sting wipe for neonates > 36 weeks or above (if required)
- Redi-wipes® with warm water
- Stoma powder and stoma paste (if required as per Stomal CNC)
- Comfeel® - cut into thin strips (if required as per Stomal CNC)
- Sucrose 24% or Expressed Human Milk (EHM) for pain relief
- Non-sterile gloves
- Disinfectant wipes (as per NCCs current cleaning policy)
- Bluey®
- Trolley or work surface
- Waste bag
- Nappy

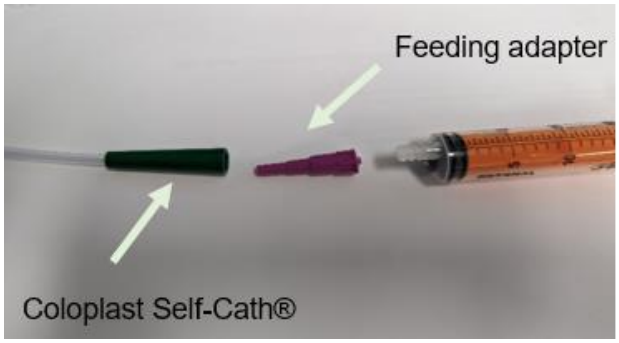


Picture 3

Picture 4

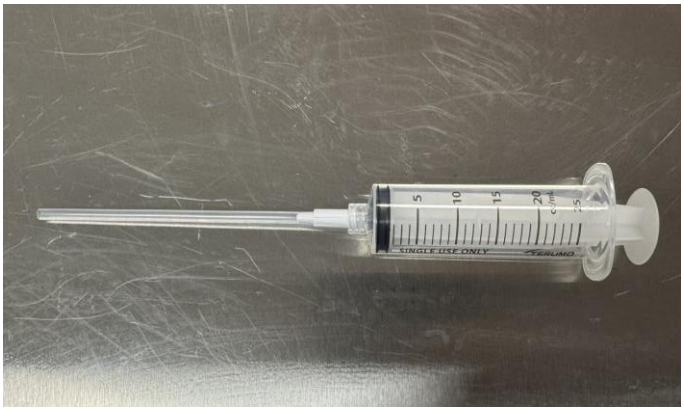
3.1.3 Emptying stoma bag

- Coloplast Self-Cath® catheter (size 12/14 French [Fr]) for drawing up stoma bag content (Picture 5)
- Feeding adapter (Picture 5)
- 20 mL enteral feeding syringe (Picture 5)
  OR
- Mixing cannula (Picture 6 & 7)
- 20 mL intravenous (IV) syringe (Picture 6 & 7)
- Non- sterile gloves
- Waste bag
- Nappy



Picture 5

Picture 6



Picture 7

3.1.4 Administration of N-acetylcysteine (NAC) 20%

- NAC 20% vial
- 1 mL IV syringe
- Drawing up needle
- Sodium chloride 0.9% or glucose 5%
- 5 mL IV syringe
- 5 mL enteral syringe
- Feeding tube (size 5, 6 or 8 Fr)
- Lubricant

3.2 Clinical Practice

3.2.1 Post-operative care (prior to active stoma)

- Identify what type of stoma the neonate has had formed and the reason for the stoma surgery. Found in operation report on eRIC.
- Inform POWH stomal CNC that neonate has stoma. Pager number 44403 or 44220.
- Perform post-operative care according to operation report.
- Remove old dressing (if present) and clean stoma and surrounding skin with warm water (no soap) and Redi-wipes®
  - Perform 6 – 8 hourly
- Assess stoma for viability and surrounding skin for signs of infection, breakdown, redness or irritation.
- Apply Jelonet® to cover the non-active stomas to maintain moisture.
- Cover with non-adhesive dressing and secure with Mepitac® tape.
- Apply clean nappy to neonate post wound care.

NOTE:
When stoma becomes active, a stoma bag needs to be applied as soon as possible to contain output, monitor stomas and their viability and protect the peristomal skin from effluent.

3.2.2 Attaching a stoma bag or performing a bag change

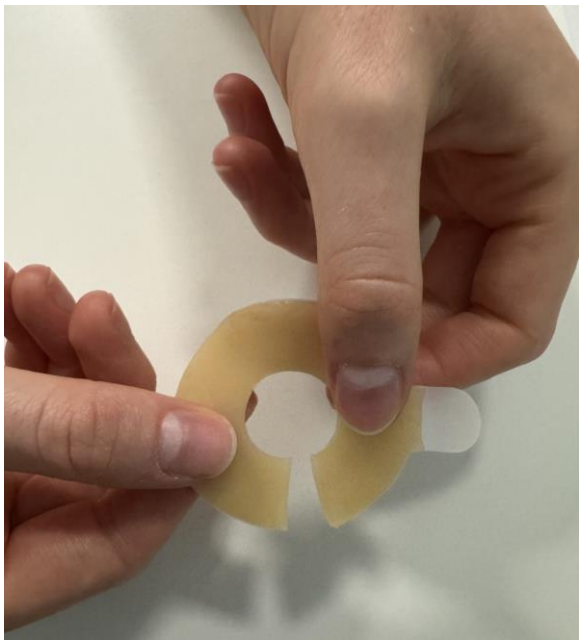
- Collect equipment and lay out on clean work surface or trolley. Ensure waste bag is easily accessible (Picture 8).

Picture 8

- Ensure the correct size stoma bag with fabric pouch removed is selected. Create or use existing template. (Picture 3 & 4).
  - If possible, the first stoma bag application should be performed by the Stoma CNC as they will make a template that can be traced onto all future bags
- Use existing stoma template to measure it still fits for stoma sizes.
  - If a new template is required, remove plastic backing from base plate of stoma bag. Measure stomas against template and trace outline. Cut stoma template for stoma sizes.
- Trace and cut template onto new stoma bag.
- Cut the barrier ring to fit snuggly around the stoma site, ensuring it is not putting any pressure on the stoma and compromising stoma viability (Picture 10).

- Use the heat of your hands to mould the ring. You can cut, mould and rejoin the ring if needed (Picture 9 & 10).

Picture 9



Picture 10

- Ensure the neonate is in an appropriate position, laying supine. Ensure comfort measures in place including swaddling the arms and using a dummy and sucrose or EHM.
- Perform hand hygiene and place bluey underneath neonate.
- Perform hand hygiene and don non- sterile gloves.
- Remove the old stoma bag if present using Redi-wipes® with warm water (adhesive removal no sting wipes can be used for very difficult to remove bags but this is not recommended if neonate is <36 weeks).
  - Remove the bag starting at the top and peel off in a downward direction to prevent skin injury, supporting baby's skin as you go
- Measure stoma output prior to bag removal. Place stoma bag into waste bag.
- Clean the area with Redi-wipes® and warm water and dry. Do not use soap.

NOTE:
It is important to dry surrounding skin and remove any old adhesive to ensure the new stoma bag adheres well to neonate's abdomen and remains insitu.

- Assess the stomas and the surrounding skin.
  - If using stoma paste or powder, apply as instructed.
- Place the ring on the neonate's skin ensuring it is well fitted around the stoma.
- Place the opening of the stoma bag facing downwards onto the ring and apply gentle pressure over the stoma bag. Hold for a minute (Picture 11).

- Check the stoma bag is evenly secured to the skin by assessing the edges of the base plate. (Picture 11).

Picture 11

- Apply clean nappy to neonate post bag change.
- Discard waste, remove gloves and perform hand hygiene.
- Document bag change, stoma output volume, consistency, stoma colour and skin integrity in eRIC.

NOTE:
Bag changes occur PRN or every 2-3 days or as per Stoma CNC.

3.2.3 Emptying the stoma bag

- Empty stoma bags when they are approximately one third full to prevent leakages. At a minimum, this should occur with each set of cares, however, may need to be more frequent depending on the amount and type of output.
- Collect equipment. Ensure waste bag is easily accessible by securing to edge of the work surface.
- Perform hand hygiene.
- Place Bluey® underneath neonate.
- Perform hand hygiene and don gloves.
- Attach the Coloplast Self-Cath® catheter to feeding adapter and to 20 mL enteral feeding syringe OR attach a 20mL IV syringe to a mixing cannula.
- Open the bag and insert the catheter into the bag.
- Aspirate the contents, ensuring to obtain as much output as possible.

- Clean the bottom of bag before sealing.
- Measure volume in the syringe. Check the volume against the numbers on the syringe.
- Discard syringe and catheter into waste bag.
- Remove gloves and perform hand hygiene.
- Document the volume, consistency and colour in eRIC.

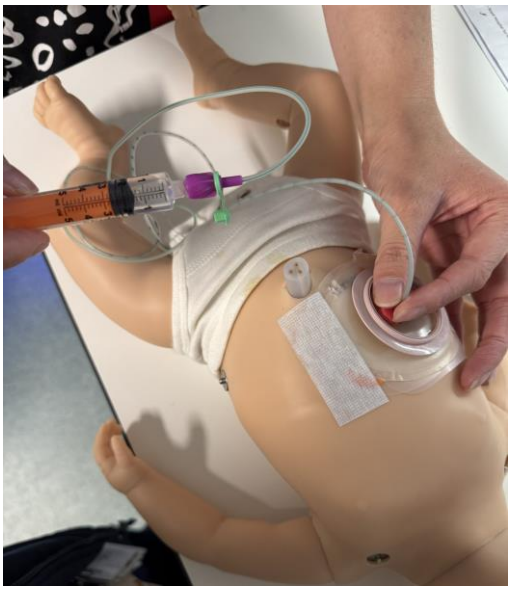
3.2.4 Administration of NAC via stoma

- Prepare medication as per Australian Neonatal Medicines Formulary (ANMF). Ensure there is a prescribed order on eRIC before administration of NAC.
- Transfer the medication from IV syringe to enteral syringe.
- Attach enteral syringe to gastric tube and prime gastic tube with solution, pushing down to the final dose. Ensure final dose is checked with two Registered Nurses.
- Perform hand hygiene and don gloves.
- Lubricate the end of the gastric tube and insert into the distal stoma approximately 5cm in depth.
    - It is ideal to administer NAC during a stoma bag change as this is when the stoma is most easily accessible.
    - If this cannot be done, or the medication is required more frequently, insert the gastric tube through the opening of the stoma bag and manipulate the bag so that the gastric tube can be inserted into the distal stoma.
    - A different type of stoma bag may be required for these patients such as a drainable ostomy bag (e.g. Dansac® brand) to allow for easy access (Picture 12 & 13).

Picture 12

Picture 13

- Push the dose of NAC through the gastric tube into the stoma using a slow pulsating motion to prevent regurgitation (Picture 14).



Picture 14

- Once the dose is administered, slowly remove the gastric tube and discard.
- Remove gloves and perform hand hygiene.

3.3 Documentation

- eRIC

3.4 Abbreviations

GI	Gastrointestinal	NEC	Necrotising Enterocolitis
NAC	N-acetylcysteine	EHM	Expressed Human Milk
Fr	French	IV	Intravenous
ANMF	Australian Neonatal Medicines Formulary		

3.5 Education Notes

- Stoma care and assessment is crucial to prevent infection and maintain good peristomal skin integrity. At each set of cares the stoma and surrounding skin is assessed on colour (perfusion and viability), function, output and bleeding.
- It is important to note that sometimes the stomas have meconium crusting on them which may be mistaken as necrotic stomas. Clean away the meconium crusting by

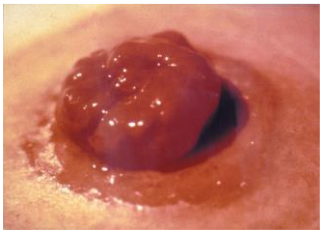
moistening the crusting which will eventually soften and lift, exposing a healthy viable stoma underneath.

- Some neonates may require replacement fluids for large gastrointestinal losses. It is the medical teams' responsibility to document a clear plan for replacement fluids and prescribe intravenous fluids on eRIC. Refer to Gastrointestinal Aspirate Replacement CBR for further guidance.
- Stoma refeeding can be requested by the surgical/medical teams. See CBR – Stoma Refeeding Management.
- Neonates with established stomas may be bathed. This can occur once the surgical site has healed and there is no risk of infection. Remove the bag prior to bathing, place a Redi-wipe® over stomas during the bath and ensure skin is completely dry before applying new bag.
- Parental involvement is encouraged during stoma care. Educate parent/carers on how to change and empty stoma bags, as well as general stoma care.
- Complications can occur at any stage of a neonate having a stoma. It is vital to maintain vigilance and report any concerns immediately.

Complication	Cause/Description	Management
Necrosis 	Death of stomal tissue resulting from impaired blood flow. The stoma appears dusky to black and is dry and firm to touch. Commonly occurs within 24 hours within surgery. Common causes include: • Excessive tension on the mesentery • Constricting sutures (too narrowly placed or too tight) • Pressure caused by too tight bag	• Inform surgical team immediately ○ Revision may be indicated if total necrosis • Closely monitor/assess site through transparent bag • Stoma CNC review and daily management • Please note it may not be necrotic but have a meconium crusting over stoma/s.
Skin irritation 	Erythema with or without skin breakdown. Possible causes include: • Prolonged appliance wear • Acidic exposure (liquid stools) • Appliance opening too large causing friction • Flat or retracted stoma • Fistula at the stoma base	Stoma CNC review and management including: • Stoma powders to protect intact skin • Using stoma paste • Ensure stoma bag base plate opening is an adequate fit • Use of skin barrier products

Laceration 	Small lacerations to the stoma may appear as white, ulcer-like markings. Possibly due to ill-fitting appliances or trauma to the stoma.	• Treat any bleeding • Clean stoma as per normal processes • Stoma CNC review • Ensure stoma bag base plate opening is cut and fit appropriately • Powders maybe indicated (determined by Stoma CNC) to promote healing

Prolapse
 
	Bowel protrudes through the stomal opening. Size of prolapse can vary and is more common in loop transverse colostomies and loop ileostomies. Most are reducible.
	Associated with/caused by:
	• Large abdominal wall opening
	• Inadequate fixation of bowel to the abdominal wall
	• Insufficient fascial support
	• Increased intra-abdominal pressure
		• Inform Stoma CNC
		  ○ Minor/small prolapse can subside spontaneously (without treatment)
		  ○ Larger prolapse may require manual reduction
		  ○ Complicated prolapse (obstruction, chronic bleeding, ischemia, ulceration) may require surgical revision
		• Monitor site – size, irritation, colour, function
		• Ensure adequate space between stoma and stoma bag base plate to avoid constriction of the stoma
		• Hernia support/binder belt may be applied to help stablise the stoma

Mucocutaneous separation 	Partial or complete separation of the stoma and skin. Causes include: • Excessive tensions at the suture line • Infection • Impaired would healing – prolonged steroid use, malnutrition	• Stoma CNC to review • Additional dressings and irrigation maybe indicated.

Bleeding 	Is often reactive to a tightly applied stoma bag, sitting too close to the stoma or from irritation. A small amount from the stoma is normal/common.	• Apply localised pressure when cleaning and changing appliance • Ensure stoma bag base plate opening is not tight • Monitor/assess each stoma bag change • Contact Stoma CNC if continues to reassess
Leakage (bag)	Leaking may be caused by: • Incorrect stoma bag size or application • Stoma very flush/flat with skin • Stoma bag too full - not emptied frequently enough • Stoma bag lifting – not adequately stuck • Thin watery output	• Empty bags when one third full to prevent weight of the bag pulling bag off • Change stoma bag as soon as any evidence of leakage • Ensure stoma bag is well adhered to skin when changing
High stomal output	More common in higher placed bowel stomas and can lead to malnutrition, poor weight gain, leakage and skin irritation. Common 24-48 hours post barium scans	• Frequent stoma bag emptying • Stoma powder may be recommenced to protect the skin and prevent excoriation • Refeeding
Parastomal Hernia	A common complication after stoma surgery, where abdominal contents bulge through the abdominal wall defect created during the stoma creation.	• Inform surgical team and stoma CNC • Monitor closely • Document any changes in eRIC (recommend taking photos and documenting in wound management) • It may be appropriate to change stoma bag devices as securement may become an issue – refer to stoma CNC for guidance

3.6 Related Policies/procedures

- RHW NCC CBR- Gastrointestinal Aspirate Replacement
- RHW NCC CBR- Stoma Refeeding Management

- ANMF Acetylcysteine for mucolysis https://www.seslhd.health.nsw.gov.au/sites/default/files/groups/Royal_Hospital_for_Women/Neonatal/Neomed/neomed21acetylcysteineformucolysis.pdf

3.7 References

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4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services

5 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

6 NATIONAL STANDARDS

- Standard 2 Partnering with Consumers
- Standard 3 Preventing and Controlling Infections
- Standard 4 Medication Safety
- Standard 5 Comprehensive Care

7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
14/11/2024 10.7.2025	Primary	R Jackson & E. Deibe Endorsed by NCC CBR Committee
4.8.25	1	RHW BRGC