GUIDELINE

Surgical Procedures Performed on PCH NICU

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU PCH

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this disclaimer

Aim

To outline which surgical procedures which may be performed within the neonatal unit at Perth Children's Hospital (PCH) Ward 3B and the required process to follow to ensure safe practice.

Risk

The decision to perform surgery on Ward 3B requires multidisciplinary discussion and analysis of risk versus benefits. Careful consideration and planning is required to ensure optimal patient outcomes.

Key Points

Cases considered appropriate for surgery in the NICU:

- <1.5kg and/or <30 weeks gestation
- >1.5 kg and >30 weeks and:
  - Unstable on handling
  - Requiring non-conventional ventilation and/or nitric oxide
  - Haemodynamic instability/ high inotrope requirement
- Congenital Diaphragmatic Hernia

Cases which fit into above categories, but are generally **not** suitable to be performed in 3B NICU:

- Surgery requires a laparoscopic or thoracoscopic approach
- Patient requires a laryngo-tracheo-bronchoscopy (LTB). May be possible in selected cases
- Neurosurgical procedure

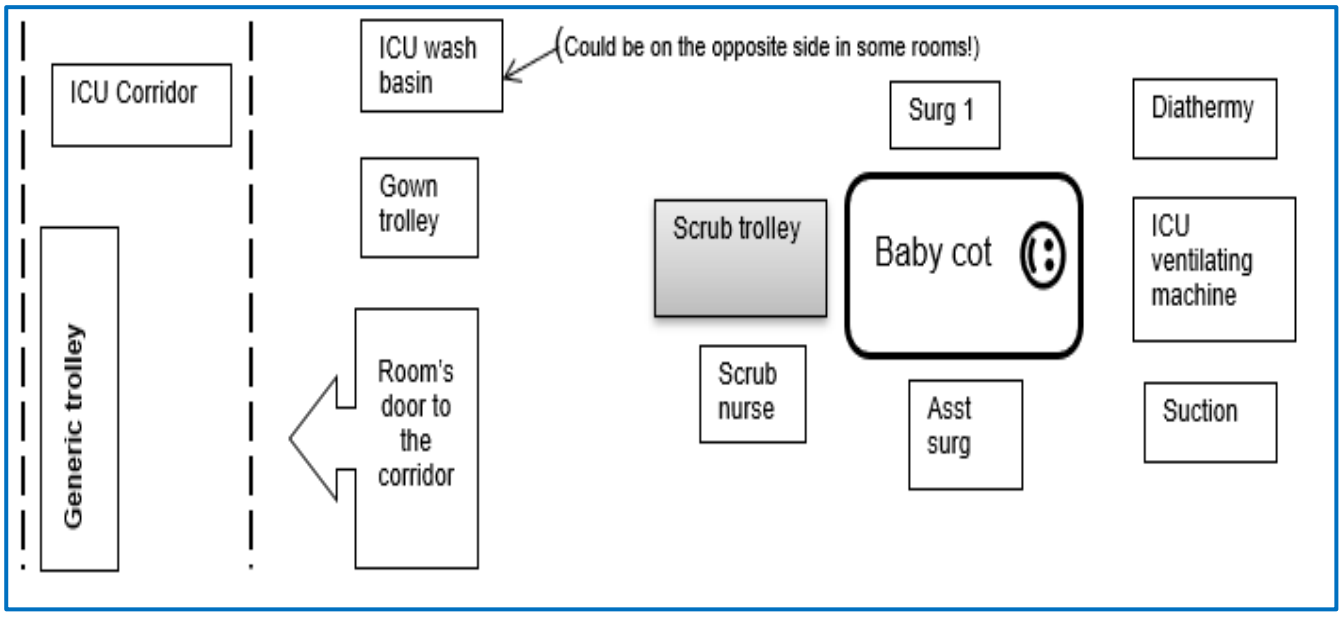
The final decision for procedure location should be by mutual agreement of the surgeon, anaesthetist and neonatologist on a case-by-case basis.

Refer to:

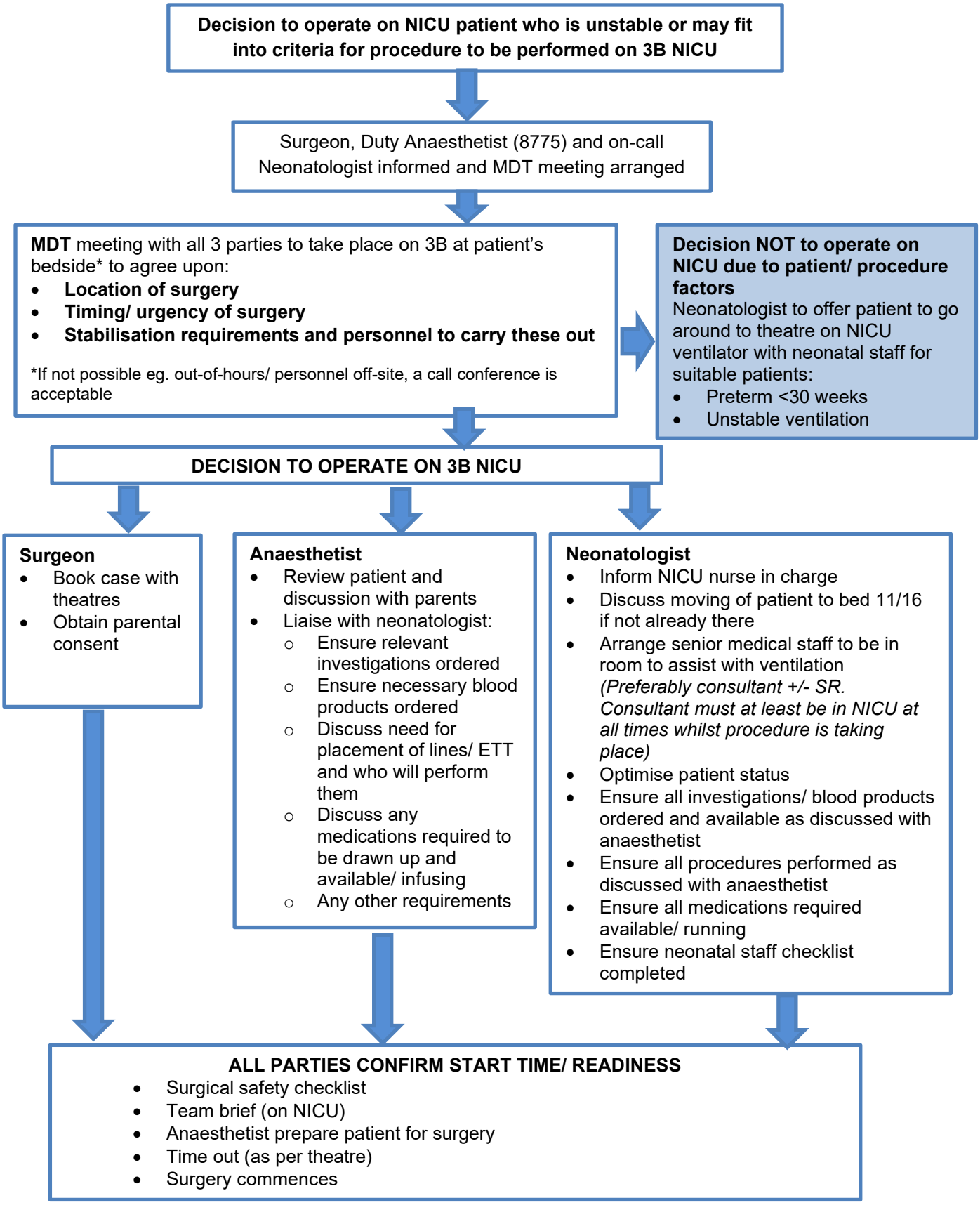
- Appendix 1: Multidisciplinary Decision Pathway and Roles for Surgery in the NICU
- Appendix 2: Neonatal Staff Checklist for Surgery in the NICU
- Appendix 3: Equipment and Accessories/Consumables for Surgery in the NICU
- Appendix 4: PCC / NICU Operating Theatre Checklist

PCC/NICU intra-op layout (will vary depending on the room)

Cases to be carried out in room 11 and if not, room 16.



Appendix 1: Multidisciplinary Decision Pathway and Roles for Surgery in the NICU



Appendix 2: Neonatal Staff Checklist for Surgery in the NICU

Theatre Paperwork	✓	**Room Requirements**	✓
Consent form completed		Double infectious clean prior to procedure	
Anaesthetic Record commenced		Clear of clutter – chairs etc	
Anaesthetic History completed		HEPA filter in back corner room and running	
Pre-op Checklist (URMN) • 1st check completed by 2x NICU staff • 2nd check completed by OT nurse		Theatre trolley to remain in the rear of the room (contains hats, scrubs, bin bags (yellow/black)	
Surgical Safety checklist		Bin emptied (spare bin liners in OT trolley)	
Parent phone numbers recorded on paperwork and observation chart		2 x suction units – 1 for ETT, 1 for OT on opposing pendant	
Patient stickers		Procedure trolley x1 for OT staff to use	
Patient Requirements		Patient trolley to be outside the room	
All prescribed medications and fluids drawn up and available/ infusing		Full O_2 and Air cylinders on warmer with correct set-up (green tubing, Y-connector and suction)	
Pre-op bloods completed and results checked. Complete pre-op BG/ NBST.		Temperature probe available for anaesthetic staff.	
Ordered blood products available in PCC fridge		Neopuff checked and ready to use. Bag and Mask on pendant near bedspace.	
Patient on warmer (not Omnibed). Skin temp monitor in place and servo mode off.		Privacy glass on (dependent on surgical team's preference)	
Coziny mattress removed from warmer		**Ward Requirements**	
Neowrap and hat applied during pre-op anaesthetic procedures		Visitors removed from ward and contacted to advise of procedure	
Consider Transwarmer in preterm infants (particularly if for pre-op procedures)		Ward closed on ICU side for period of procedure (whole ward if procedure happening in room 16)	
Back of patient clear of leads (for diathermy pad)		**NICU Staff Required**	
Monitoring in place: • 2 x O_2 sats probes on different limbs, both displayed on monitor • ETCO2 in situ and on monitor • TCM insitu (away from surgical site) and correlated with recent gas (particularly important in babies on HFOV/HFOJV where ETCO2 n/a) • BP cuff on suitable limb set to cycle (frequency to be determined by anaesthetist		Nurse and Dr (Consultant +/- SR) in the room. Runner nurse outside the room.	

Appendix 3: Equipment and Accessories/Consumables

Non-sterile equipment/accessories	
Generic trolley	
"Grab 'n' Go basket" for PCC/NICU cases (**Rack B: Shelf 3B** next to the emerg neonatal laparotomy setup)	
Scrub/Set-up trolley	
Bowl stand x 1	
Feeder trolley/Gown trolley (might be able to borrow a small trolley from PCC/NICU if separate feeder trolley required)	
Diathermy machine (located in equipment bay next to T5/PACU exit door)	
Neuro headlight (Neuro store next to Th11): *check with surgeon*	
Footstep: *check with surgeon*	
Specimen jars with formalin (case dependent e.g. bowel resection)	
Warm Betadine and **Warm** 1L Saline (wrapped in a warm blanket)	
Sterile equipment/consumables	
Instruments and consumables, as per surgeon preference card	
Steri-drape (Ref:1060) usually part of the pref card (If unavailable, use Clear U drape or Steri-drape 1030)	
Disposable light handles **for PCC/NICU** x 2 (kept on top shelf of **Rack D: Shelf: 3**)	
Selection of sterile **GLOVES** for surgeon(s) and scrub nurse	
Selection of sterile **GOWNS** for surgeon(s) and scrub nurse	
Extra abdo packs - small and raytec	
Graft/Patch requirements: *Check with surgeon* (e.g. Gastroschisis/diaphragmatic hernia)	
Check suture requirements with surgeon/grab any that are not on the Generic trolley / Grab n Go basket if required	
Additional notes:	

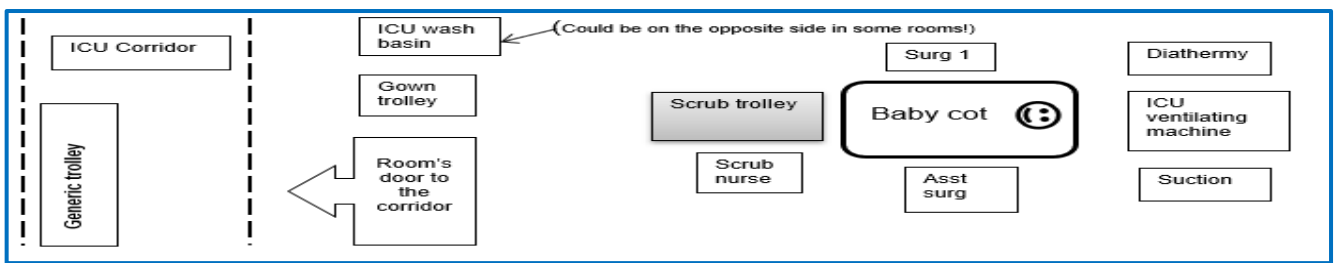
Please check Appendix 4: PCC NICU Operating Theatre Checklist for some helpful hints!

Appendix 4: PCC / NICU Operating Theatre Checklist

NICU has a "theatre trolley" located in their **Procedure Room** that they maintain.
PARK THE TROLLEY OUTSIDE THE ROOM FOR EASY ACCESS.

Top drawer	• Scrub brushes / disposable hats / permanent marker and a red folder with theatre paperwork
Second drawer	• Surgical masks (with and without splashguard)
Third drawer	• Greenies / positioning gel/ 1 x neonatal diathermy pad/Neonatal stoma bags
Bottom drawer	• Rubbish bags: Black and Yellow/Count-off bags • Bottle of Skinman / Chlorhex scrub • Betadine prep x 1

- Usually 3 x theatre nurses are allocated to PCC/NICU cases (including a runner between PCC/NICU and Theatre)
- Team Leader to wear Vocera badge to make communication with the Theatre Coordinator easier – located in CNS / SDN office.
- Consider specific sutures/positioning gel in case of lateral positioning.
- Warm fluids/prep etc. and keep rolled up in a warm blanket to keep them warm
- Ensure diathermy machine has diathermy pads appropriate for patient weight.
- The wall suction in PCC/NICU is ok to use for surgical suction.
- Take the disposable light handles that are specifically for the PCC/NICU lights. Regular theatre light handles do not fit PCC/NICU lights. A headlight is preferred by some. Check with the surgeon.
- Clean the room as much as possible; replace rubbish bags with fresh ones before setting up to help isolate surgical rubbish separately. Recycling is generally not done as there is limited space for multiple bins.
- PCC/NICU staff to don hats/masks prior to theatre staff setting up the scrub trolley.
- PCC/NICU rooms are smaller than theatres, place non-essential equipment (e.g: Generic trolley) outside the room. This includes the gown trolley (PCC rooms are even smaller than NICU rooms). PCC/NICU staff to declutter the room to fit the surgical set up. You may even choose not to use the bowl stand (once the trolley has been set up) to save space in the room intra-op.
- Complete pre-op checklist with the PCC/NICU nurse. Don't forget to complete the OSCAR blue form for TMS data entry retrospectively.
- NICU has a WOW that can be used to run TMS if required. (Use Theatre 5's Log-in details, change workstation to PCC/NICU in Outlying Areas to find the patient)
- Keep all the instruments' stickers so that you can scan them to PCC/NICU locations on Censitrac. When the case is finished, discard all rubbish and sharps as per standard practice and place all instruments into the tray/s. Bring the Scrub trolley and instrument stickers to the Decon room, place single instruments, if any, into the white tub, log into Censitrac on the computer mounted on the wall and scan all tray(s)/single instrument(s) to the respective barcode. Patient UMRN can be copied from the OSCAR form.



Related CAHS internal policies, procedures and guidelines
Recognising and Responding to Clinical Deterioration (health.wa.gov.au)

This document can be made available in alternative formats on request.

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