# Royal Hospital for Women (RHW)
# BUSINESS RULE

## Post-Operative Care

This Clinical Business Rule is developed to guide safe clinical practice in Newborn Care Centre (NCC) at The Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside the Royal Hospital for Women or its reproduction in whole or part, is subject to acknowledgement that it is the property of NCC and is valid and applicable for use at the time of publication. NCC is not responsible for consequences that may develop from the use of this document outside NCC.

## 1. BACKGROUND

Post-operative care provided to infants in NCC should be individualised to the patient's needs, particular procedure performed and direct surgical orders.

## 2. RESPONSIBILITIES

Medical and Nursing Staff

## 3. PROCEDURE

### 3.1 Equipment

- Open care bed, humidicrib (Omnibed, Baby Leo) checked and warmed
- Cardio-respiratory monitoring equipment
- Resuscitation equipment – Neopuff, suction, blender
- Ventilator checked and set up
- Intravenous (IV) pumps
- Stethoscope

### 3.2 Clinical Practice

1. Check patient ID before transfer.
2. Prepare for transfer:
    - Nominated personnel should include:
        - Airway management
        - Cables and lines
        - Infant
    - Swap monitoring over to bedside monitors and move IV pumps to bedside IV poles
    - Remove any excess and unnecessary items to ensure smooth transfer
    - Ensure ventilator settings match settings on transport ventilator before connecting

NOTE: Transfer of infants in their humidicrib with ventilator, resuscitation equipment and monitoring attached is preferred to avoid additional handling of the infant and prevent multiple disconnections from required respiratory support.

3. Transfer infant to the humidicrib and transport ventilator immediately for transfer.
4. Transfer infant to NCC (accompanied by anaesthetic team and NCC Registered Nurse).
5. Transfer to ward bed and ventilator if required.
6. Ensure ventilator is attached to wall gases.
7. Medical and nursing staff to receive handover from anaesthetic team. Review postoperative orders from surgeon.
8. Assess airway patency and ventilation immediately upon return to NCC:
    - Check the type of ETT in place, assessing the measurement and security of the tape
    - Infants may return with a cuffed ETT (should be deflated if inflated on return)

- Observe infant for chest rise and auscultate for breath sounds
- Attach inline suction to ETT if not already in place (suction as needed)
- Prioritise retaping ETT if needed

9. Ensure cardio-respiratory monitoring is connected with appropriate alarm limits.
10. Attach servo skin temperature probe to infant and adjust temperature as needed.
11. Perform a systematic examination and full set of observations on arrival to NCC including:
    - Heart rate
    - Respiratory rate, effort and breath sounds
    - Oxygen saturations
    - Axilla temperature (compare to servo skin temperature when available)
    - Blood pressure (cuff or zero arterial line as applicable)
    - Capillary refill, assessment of colour and perfusion
    - Skin integrity and oedema
    - Fontanelles
    - Pain assessment
    - Blood gas including blood glucose
12. Assess the presence, condition and baseline measurements of:
    - Surgical site and dressing
    - Related drains
    - Intravenous and arterial lines (including VIP scores)
    - Urinary catheters
13. Notify ward clerk of infant's return from theatre.
14. Record the following observations at the prescribed intervals for all post-operative infants:

| **Clinical Parameter** | **Frequency** |
|---|---|
| Heart rate | Hourly |
| Respiratory rate and effort | Hourly |
| Oxygen saturation (SpO2) | Hourly |
| Temperature | Servo skin temp – hourly<br>Axilla – hourly for 4 hours then 6-8 hourly (with cares) |
| Blood pressure | <u>First 12 hours</u><br>15 minutely for first hour<br>30 minutely for second hour<br>Then hourly<br>(Infants who have not had a general anaesthetic may have this requirement adjusted at the discretion of the medical team)<br><u>After 12 hours</u><br>Intra-arterial line – hourly<br>Non-invasive – 6-8 hourly with cares |
| Capillary refill, colour and perfusion | Hourly for 4 hours then 6-8 hourly (with cares) |
| Blood glucose | 6 hourly<br>More frequently as prescribed by medical team in response to clinical need |
| Pain | <u>First 24 hours</u><br>2 hourly for first 24 hours<br>4 hourly for second 24 hours<br>4 hourly whilst receiving any analgesic infusions<br>4 hourly whilst any indwelling lines/drains in place<br>30 minutes post any pain relief intervention |

| | |
|---|---|
| Urine output (measured/recorded as mL/kg/hour) | Hourly IDC measurements (if available) for the first 4 hours then 4 hourly until removed<br>Weigh nappies with cares (6-8 hourly) |
| Chest or wound drains | Hourly<br>Document: output (volume, colour, consistency); swinging/bubbling; suction |
| Surgical site | With cares<br>Document: redness; swelling; blood loss or ooze; dressing state (intact) |
| Other | As ordered by medical team<br>Examples: epidural infusions; intra-abdominal pressure; abdominal girth |

15. Routine observations continue after this if observations have been within normal range.
16. Insert gastric tube if not in situ. Leave on free drainage until commencement of feeds.
17. Check the following:
    - Correct fluids are running at an appropriate rate and record hourly
    - Monitor fluid administration site as usual
    - Calculate input and output every 12 hours or as directed by the medical team
        - Notify medical team if urine output is <2 mL/kg/hr or >5 mL/kg/hr
18. Check the medication chart and anaesthetic charts for any medication administration (eg. antibiotics). Administer any medications that are due if not already given.
19. Take any required post-operative bloods.
20. Optimise pain management including use of non-pharmacological interventions:
    - Ensure adequate pain relief is prescribed and administered
    - Provide a quiet environment with dim lighting
    - Provide boundaries to support the neonate's position
    - Adhere to minimal handling principles
    - Use a pacifier if appropriate with parental consent
    - Use containment holding and positive touch during handling
21. Follow post-operative orders for specific instructions related to the surgery. Ensure handover and documentation of any critical information (eg. gastric tube NOT to be removed in case of oesophageal surgery).
22. Remove excess betadine (if used) from the skin once the neonate is stabilised.
23. Inform parents of:
    - Infant's return to ward
    - Current care and condition
    - Surgical team to update parents on surgery and neonatal team to update parents daily about infant's progress

## 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.

## 5. ABBREVIATIONS

| | | | |
|---|---|---|---|
| NCC | Newborn Care Centre | VIP | Visual Infusion Phlebitis |

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|---|---|---|---|
| IV | Intravenous | IDC | Indwelling Urinary Catheter |
| ETT | Endotracheal Tube | | |

## 6. REVISION AND APPROVAL HISTORY

| Date | Version | Author and Approval |
|---|---|---|
| 3/7/2009 | 1 | S Gooch (RN); Primary document approved |
| 29/9/2014 | 2 | D Cooper (CNS); Revised and approved NCC Quality Committee |
| 14/8/2018 | 3 | A Ottoway (NE); Revised and approved NCC LOPs Committee |
| 18/8/2022 | 4 | S Neale (ANE); Revised and approved NCC CBR Committee |
| 15/09/2022 | | Approved by RHW Safety and Quality Committee |