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

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SUMMARY	To ensure the safe provision of Kangaroo Care in the Newborn Care Centre
KEY WORDS	Neonate, Kangaroo Care, Ventilated, Parent, Respiratory support

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Kangaroo Care of Non-Ventilated & Ventilated Neonate/s — RHW CLIN081

Contents

Kangaroo Care of Non-Ventilated & Ventilated Neonate/s

RHW CLIN081

1. BACKGROUND

Kangaroo Care (KC) or skin-to-skin care is an integral part of neonatal care. It is the practice of holding a nappy-clad neonate directly on the chest of a parent/carer with maximal skin to skin contact.
The benefits can include stabilised heart rate, decreased oxygen requirement, improved thermoregulation, improved weight gain and reduced risk of infection[7,10,11,14,32].
KC can lead to improved maternal milk supply and increased rates of breastfeeding [10,16]. KC can help develop parental/carer confidence by establishing early interaction with their neonate in the NICU setting, enhancing parental/carer bonding [2,12,23,29].
KC can lead to an improved recognition of neonatal cues by parents/carers, which can help reduce stress, crying and improve self-regulation in the infants[9].

2. RESPONSIBILITIES

Staff

2.1 Medical – To identify neonates who are eligible for KC daily and promote the practice where appropriate.

2.2 Nursing & Midwifery – To facilitate the safe provision of KC after careful consideration of eligibility criteria. To provide education and support to families undertaking KC.

3. PROCEDURE

3.1 Equipment

- Comfortable, stable chair with arm rests and high back
- Blanket (from linen warmer if appropriate)
- Hat
- Sterile freezer bag (if baby especially susceptible to thermal instability)
- Hospital gown if parent/carers clothing not stretchy/button down front
- Neopuff™ & appropriate sized face mask is accessible
- Suction & appropriate sized suction catheters are accessible
- Stethoscope
- Resuscitation trolley available
- Tape to secure respiratory support tubing (optional)
- Pillow (optional)
- Footstool (optional)
- Privacy screen (optional)
- Mirror (optional)

3.2 Eligibility for KC

KC is encouraged in the NCC with most neonates being eligible. However, there are individual circumstances that MUST be considered including:

- Parental/carer choice
- Staff comfort level
- Availability of parent/ carer's time. KC should be provided for a minimum of 1 hour per session (no maximum time limit)
- If siblings are present during KC they MUST be supervised by a second parent/visitor and not the parent/carer participating in KC
- Accessibility of medical and nursing staff (i.e. potentially unsafe NCC environment if medical team occupied for great lengths of time)
- Neonate under droplet or airborne transmission-based precautions (neonate must be nursed in a single room with doors closed prior to KC commencing)

Neonates who may be eligible:

- Unstable Umbilical Catheters (MUST be secure)
- Neonates in high levels of humidity (>85%)
- Neonates with parents/ carers who are diagnosed with a contact-transmittable illness without processes in place to minimise transmission
- Neonates nursed on a cooling mat- modified KC only with cooling mat insitu
- Neonates receiving BRAINZ monitoring

Neonates who are not eligible:

- Very unstable neonate [i.e. neonates receiving nitric oxide therapy] (consider positive touch and parents/carers aiding in repositioning/lifting neonate where appropriate)
- Neonates with a silo insitu (Gastroschisis)
- Neonates undergoing intensive phototherapy nearing exchange range
- Neonates who are muscle relaxed
- Neonates on high frequency oscillatory ventilation (HFOV)
- Neonates undergoing passive therapeutic cooling (without a cooling mat)

NOTE:
Neonates who have lines and/or tubes insitu can have **modified KC** using their nest (with or without a pillow underneath). Lines and tubing MUST be visible at all times.
Ensure neonate remains normothermic during modified KC.
Advise parents/carers of the implications associated with third-hand smoke and vapour that can exist on clothing after smoking or vaping[21, 22]. Offer parents/carers who smoke or vape a hospital gown to reduce the possibility of exposing their neonate.

3.2 Clinical Practice

3.2.1 KC of a neonate who is self-ventilating or requiring non-invasive respiratory support

1. Discuss with parents/carers the benefits of KC and establish an appropriate time.
2. Discuss the procedure with parents/carers (and staff members if needed). Ensure:
   - Parent is not due to express milk or is willing to express during KC
   - Parent/carer has drinking water available

- A toilet visit is not required
- Parent/carer is agreeable to length of time for KC (minimum 1 hour)
- Parent/carer is wearing appropriate clothing

3. Make everyone aware of allocated roles.

NOTE:
KC is best performed after cares and before a feed.

4. Ask parent/carer to perform hand hygiene and clean mobile phone with neutral detergent wipes prior to KC.
5. Assess neonate's readiness for KC:
   - Check neonates body temperature with thermometer as a baseline reading
   - Ensure cardio-respiratory electrodes and pulse-oximeter probe are attached to the neonate
   - Remove neonate's clothing except nappy. Place hat on neonate if not already in place.
   - Suction neonate if required
6. Transferring neonate from bed to parent/carer:
   - Ensure adequate room to open crib door and settle parent into an appropriate chair.
   - Swaddle to keep neonate contained, if not available use hands to provide a "nest" to secure the neonate and contain cables.
     - The most appropriate position to transfer is side-lying or lateral to keep neonate in a contained, midline position.
     - Keep the neonate in a horizontal state until placed directly on to the parent/carer's chest to avoid vestibular disturbance.
   - Gently transfer neonate to parent/carer's chest.
     - A second nurse/parent/carer is required to assist in transferring cables, tubes and Intravenous (IV) infusion lines.
   - Parent/carer's hands are required to support neonate, one hand on head and one under the bottom for duration of KC.
     - Ensure parent/carers are aware to maintain a neutral position of neonate's airway.
     - Parent/carer to ask for assistance if neonate requires repositioning.
     - Neonate may be held on a slight diagonal position if this is easier for the parents/carers to facilitate.
   - Ensure cables, tubes and lines are supported with no tension.
     - Use clips on respiratory tubing to secure them to parent/carer's clothing/gown.
     - Tape can also be used to secure tubing if needed.
   - Ensure feeding tube is easily accessible.
   - Assist parent/carer to gradually lean back into recliner chair until in a comfortable position. Lock chair in place.
   - Provide blanket as required and wrap neonate into 'pouch-like' position using blanket and gown or parent/ carers clothing. (Picture 1 & 2.)
     - If neonate is especially susceptible to changes in temperature, place a freezer bag directly on the neonate's skin, below shoulders and over back as a 'blanket' so that the parent/carer is still able to safely hold on to neonate, while maintaining normothermia.

Picture 1
(Sourced from Wikipedia contributors. Kangaroo care[33])

Picture 2
(Sourced from Akhtar et al Kangaroo Mother Care[1])

- Ensure viewing mirror and drinking water are accessible to parent/carer. Encourage interaction with neonate when awake during KC.
- Provide pillow, footstool and/or blanket for the parent/carer if desired.

NOTE:
Encourage parent/carers to talk, sing, hum or read to their infants whilst preforming KC. Ensure parent/carers are aware of the benefits of KC without using mobile devices.

- Commence feed if due.
  - Wait a minimum of 20 minutes after completion of feed to reposition/transfer neonate (unless medically urgent).
- Assess neonates body temperature in one hour. Apply warm blanket and optimise thermoregulation if necessary.

NOTE:
Parent/carers of neonates in level 2/1 can be taught how to transfer the baby in and out of bed. Assess readiness of parent/carer and ensure clear communication is used when giving instructions. Use task/skill tick box under 'Family' tab in eRIC to document assessment. Second parent/carer can assist staff in holding cables, tubes and IV infusion lines during the transfer.

7. Returning neonate to bed:
   - Unlock chair. Assist parent/carer to return to sitting position.
   - Open crib door.
   - Remove blanket (and freezer bag if used).
   - If swaddle in place gently lay neonate on parent/carers thighs/pillow to re-swaddle before transfer.
   - Gently transfer neonate from parent/carer to crib using hands (if no swaddle) to contain and secure neonate and cables.
     - A second nurse/parent /carer is required to assist in transferring cables, tubes and IV infusion lines.

- Position neonate comfortably in crib and organise cables, tubes and IV infusion lines appropriately.
- Replace skin temperature probe if required.
- Document session time in notes and in eRIC.
  - This should include start and stop times and how session was tolerated by both neonate and parent/carer in notes.

3.2.2 KC of neonate requiring invasive ventilation

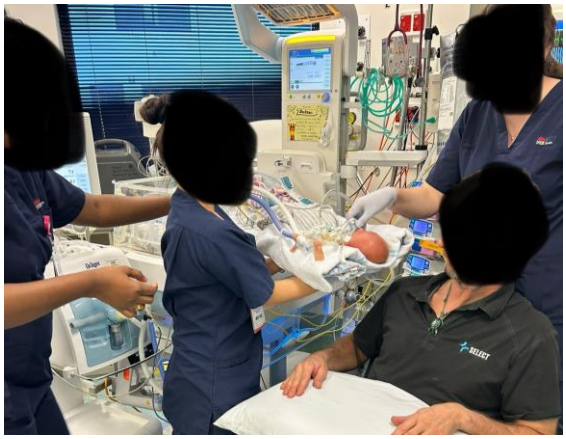
1. Prepare the neonate for KC as per 3.2.1 steps 1-5.
2. Ensure the Endotracheal Tube (ETT) is secure.
   - Re-tape ETT if necessary to avoid accidental extubation
3. Suction the ETT and oral/nasopharyngeal spaces as required.
4. Remove normal saline syringe from inline suction and close the cap.
5. Auscultate the chest ensuring clear and equal air-entry.
6. Wrap neonate prior to transfer. (Picture 3)
7. Place all equipment and lines on the side of the bed that the neonate will come out from. (Picture 4)
8. Position the ventilator so that it is easily accessible once the neonate is out for KC, ensuring there is adequate length of tubing to avoid tension on the ETT.
9. Ensure the Neopuff™ and suction tubing is easily accessible and has adequate length to use during the neonates KC session.
10. Place pillow on parent/carer's lap if coming out in nest due to umbilical lines/chest drains or for additional support.
11. Gather three staff members to assist with the transfer. Assign roles:
    - Holding ETT and tubing
    - Holding the neonate
    - Standby to monitor vital signs, assist in holding lines/tubing if necessary and help securing ventilation tubing in place

NOTE:
Consider KC as an option if incubator is due for a change in a stable ventilated patient. Liaise with senior medical officer prior.

Picture 3

Picture 4

12. Staff to transfer the neonate to the parent/carer for KC. (Picture 5 and 6)

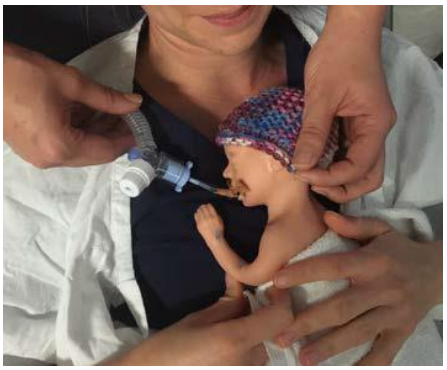


Picture 5

Picture 6

13. Gently and slowly transfer the baby from the bed to the parent/carer's chest in a prone upright position ensuring the baby is facing the ventilator. (Picture 7)
14. Auscultate the neonate's chest, suction if necessary and assess ventilator values.
15. Secure ventilator tubing with clips or adhesive tape to parent//carers clothing, the pillow or chair. (Picture 7 and 8)
16. Cover the neonate and parent/carer with a blanket ensuring visibility of ETT.
17. Bedside RN must remain with neonate for the duration of KC.

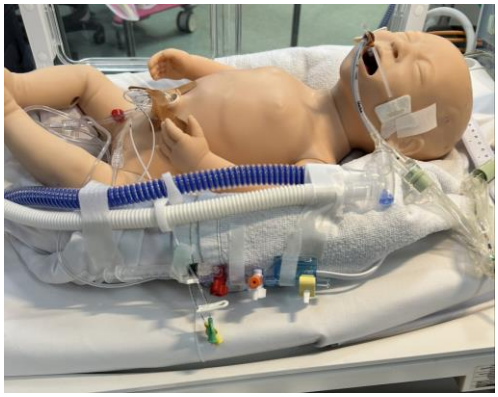
Picture 7



Picture 8

3.2.3 Transferring a neonate to the parent//carer for KC with umbilical lines or chest drains (Modified KC)

1. Position the neonate in the nest in a supine position.
2. Secure the ventilator tubing to the side of the nest with tape. (Picture 9)
3. Secure the umbilical lines and/or chest drain to the side of the nest with tape (Picture 9)
4. Gather three staff members to assist with the transfer. Assign roles:
   - Holding ETT and tubing
   - Holding the neonate and line/drain tubing
   - Standby to monitor vital signs and help securing ventilation tubing in place



Picture 9

3.2.4 Transferring the neonate back to bed

1. Auscultate the lungs and suction if necessary.
2. Sit parent/carer back up in an upright position and undo taping/clips securing the ventilator tubing to the parent/carers clothing or chair.
3. Transfer the neonate back to the cot with RNs assisting in the same roles.
4. Once back in bed auscultate the lungs and assess ventilator values.
5. Reposition neonate into desired position and encourage parent//carer to perform containment hold to settle neonate.
6. Attach skin temperature probe if required. Perform temperature to ensure normothermia.
7. Document KC on eRIC.
    - This should include start and stop times and how session was tolerated by both neonate and parent/carer in notes.

3.3 Documentation

- eRIC

3.4 Education Notes

- KC promotes a reduction in neonatal mortality and morbidity in low/middle income countries[5,28]
- Benefits increase with longer periods of KC[10,6]
- Benefits include:
    - Improved physiological stability (temperature and vital signs)[7,10,11,14]
    - Improved sleep patterns[4]
    - Promotes growth and development[14]
    - Promotes parent/carer -neonate attachment bond[2,23,29,30]
    - Helps with non-pharmacological pain management[7,15]
    - Improved breastfeeding rates and milk supply directly post KC[10,16]
    - Follow up studies have shown significant, long-lasting social and behavioural protective effects 20 years after the KC intervention was implemented[8].
    - Using a mirror encourages eye contact, help parent/carers recognise the baby's cues and distracts parent/carers from watching monitors, which can lead to enhancing parent/carer and neonate bonding[26].

- Encouragement from the Nursing and Medical Teams of safe KC is vital for all families in the NICU. The benefits of KC can be highlighted to parent/carers as soon as appropriate after admission.

3.5 Abbreviations

KC	Kangaroo Care	HFOV	High Frequency Oscillatory Ventilation
IV	Intravenous	ETT	Endotracheal Tube

3.6 Related Policies and Procedures

- RHW NCC Nursing CBR – Co- Bedding in the Newborn Care Centre
- RHW NCC Nursing CBR- Humidification- GE Giraffe Omnibed
- RHW NCC Nursing CBR- Humidification – Dräger Isolette
- RHW NCC Nursing CBR- Immuno-Supportive Oral Care (ISOC)
- RHW NCC Nursing CBR - Suction – Closed Tracheal Suction from an Endotracheal Tube
- RHW NCC Nursing CBR- Visiting Policy to Newborn Care Centre
- NSW Health Policy- Breastfeeding- Protection, Promotion and Support PD2018_034

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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 5 Comprehensive Care
- Standard 6 Communicating for Safety
- Standard 8 Recognising and Responding to Acute Deterioration

7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
17.01.17	1	A Scott-Murphy (RN), R Sheriff (RN)
21.06.18	2	NCC LOP's Committee
27.05.24 1.8.24	3	R Light (CNS), G Vanderlaan (CNS), E Roylance (RN) & L Booth (RN). Endorsed NCC CBR Committee
10.02.25	3	RHW BRGC