East Midlands Neonatal
Operational Delivery Network

NETWORK GUIDELINE

Guideline:	**Kangaroo or Skin-to-Skin Care**
Version:	**5**
Date:	**July 2021**
Review Date:	**July 2024**
Approval:	**EMNODN Clinical Governance Group**
Authors:	**East Midlands Neonatal Operational Delivery Network**
Consultation:	**EMNODN Clinical Governance Group**
Distribution:	**Neonatal Units within EMNODN**
Risk Managed:	**Maintaining a safe environment whilst establishing a normal nurturing relationship between the neonate and parents whilst supporting the initiation of breast feeding**

This document is a guideline. Its interpretation and application remains the responsibility of the individual clinician, particularly in view of its applicability across the different Trusts in the East Midlands Neonatal Operational Delivery Network. Please also consult any local policy/guideline document where appropriate and if in doubt contact a senior colleague.

Caution is advised when using guidelines after a review date.

REVIEW AND AMENDMENT LOG

Version	Type of Change	Date	Description of Change
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
4	No change	Sept 2018	CNN & TPN Guideline transferred to EMNODN Guideline format
5	Addition of linked contents page Appendix documents added Reworded text and updated	June 2021	

CONTENTS

INTRODUCTION

Supporting Families within the neonatal unit to build close and loving relationships with their baby is paramount. A big part of this is ensuring that every baby and family are given the opportunity to participate in regular skin-to-skin contact, which is also known as Kangaroo Care and will be referred to as such throughout this guideline. As a region we pride ourselves on our family centred and family integrated care focus and aim to deliver the highest standard of care. With that said, every baby is an individual and should be assessed daily for suitability to undertake Kangaroo Care.

BACKGROUND

Kangaroo Care (KC) was first established by Rey and Martinez in Bogotá, Colombia, in the late 1970s. The concept developed out of necessity due to a lack of incubators and a high mortality rate for premature babies. Mothers were encouraged to hold their babies skin-to-skin against their chest to maintain the babies' temperature. As a result, researchers found that these babies not only began to survive, they thrived.

Since its first implementation, continued research has shown that KC is more than a substitute for incubator care. It has been evidenced to improve thermal control, breastfeeding, bonding, infection prevention and weight gain, amongst other metrics (Conde_Agudelo et al., 2016; WHO, 2003). As a result, intermittent KC is now a widely utilised practice within neonatal units worldwide.

The latest evidence from the World Health Organization (WHO, 2021) shows that KC started immediately after birth, compared with the current practice of starting once the baby is stable, dramatically improves the survival of preterm and low birth weight infants and could save 150,000 more lives each year.

The WHO also highlighted the benefits of continuous KC rather than intermittent and stated that *"Keeping the mother and baby together right from birth with zero separation will revolutionise the way neonatal intensive care is practiced for babies born early or small"* (WHO, 2021). However, due to the current lack of Mother-Newborn ICUs, constant KC is not currently achievable.

Therefore, KC should be undertaken regularly and for as long as possible with all medically stable babies. Suitability for this should be discussed by the team daily during the ward round to ensure consistency.

BENEFITS OF KANGAROO CARE

Benefits for baby:

- Thermoregulation – reduced cold stress.
- Stable heart rate- reduced incidence of bradycardia/ tachycardia.
- More regular breathing- reduced incidence of apnoea.
- Improved oxygenation- lower oxygen requirements and reduced incidence of desaturations.
- Releases oxytocin and decreases cortisol- reduced stress, crying and irritability.
- Improved sleep patterns.

- Longer alert states and less crying at six months of age.
- Improved brain development.
- Improved neurobehavioral and psychomotor development.
- More successful breastfeeding.
- Improved weight gain.
- Non-pharmacological pain relief.
- Engages all five senses.

Benefits for parents:

- Improves parent-baby interaction.
- Increases psychological well-being and improves psychological adaptation and recovery after preterm delivery.
- Promotes recovery from postpartum depression.
- Salivary cortisol decreases in mothers of babies' born at 25-33 weeks.
- Provides the family with the opportunity to recognise and respond to their baby's behavioural cues, thus, becoming aware of their baby's individuality and promotes earlier attachment and an increased sense of confidence in caring for their baby.
- Increased parental satisfaction with care giving.
- Enhances sense of empowerment and reduction of feelings of inadequacy and anxiety.
- Promotes bonding and attachment.

Benefits for breastfeeding:

- Facilitates access to breast and increases the production of breast milk.
- Increases breastfeeding rates, the proportion of exclusive breastfeeding at discharge, and longer breastfeeding.
- Promotes breastfeeding by increasing milk volume and enhancing the duration of lactation.

Other possible benefits:

- Facilitates earlier hospital discharge.

READINESS FOR KANGAROO CARE

Most babies on the unit are suitable and will benefit from having KC regularly and for as long as possible, day or night. It is important for babies' receiving intensive care support, particularly those who are ventilated, to have a daily ward round discussion to establish if it is safe to do KC. The 'I'm ready for Kangaroo care' cot card can then be utilised to show families their baby is suitable for KC (Appendix 1).

In Special Care, parents should be reminded of the importance of KC even when their baby is being dressed; their baby can be undressed and will continue to benefit from having KC regularly.

Indications include:

- Comfort for parent and baby.
- Bonding.
- Breastfeeding.
- Non- pharmacological pain relief for baby.
- Improving long term outcomes.

Low temperature and desaturations should not prevent KC as it is known to improve thermoregulation and respiratory incidents. Night-time is also an appropriate time for KC if that is when best suited to the family.

CONTRAINDICATIONS

- Unstable infants requiring ventilator support. (Stable infants on long term ventilation or for palliative care should continue to be offered KC).
- For surgical neonates and those with chest drains, suitability and appropriateness should be discussed with the medical and surgical team.
- Babies with umbilical lines can have KC, however, lines should be secured as per unit policy. Any concerns should be discussed with the medical team.
- Immediately after an invasive procedure or treatment, i.e. extubation. Simple procedures such as cannulation do not interfere with KC.

When KC is not possible, parents should be shown how to minimise separation by gentle comfort touch, talking, reading, and singing soothing lullabies and olfaction stimulation.

RISKS

There are very few risks involved with KC. However, some of the potential risks include:

- Hyperthermia due to maternal heat transfer (although this is very rare).
- Hypoxia, which is often due to poor positioning of the baby's head.
- Accidental extubation.
- Dislodgement of lines.

These risks are significantly reduced when undertaken by experienced nursing staff and careful transfer from the incubator.

No risks to parents have been documented. However, research suggests that some parents are discouraged from doing KC due to a lack of support and information. Therefore, we must inform parents of the extensive benefits of KC and ensure they know what to expect before they begin. Parents may be scared to do KC for the first time or if their baby has not tolerated it well previously. It is crucial that we offer reassurance and re-iterate the benefits. Where possible, providing KC practice via the use of a simulation doll may help anxious parents feel ready and confident to undertake KC with their baby.

SPECIAL PRECAUTIONS

Ensure unit staffing is adequate before offering KC to ventilated babies. It should only be offered when there are sufficient numbers to ensure a safe transfer to and from the incubator. If junior staff are not familiar with removing a baby from the incubator, ensure a senior nurse or a nurse who is competent and confident to undertake the transfer is available to assist.

The nurse caring for the baby should remain in the vicinity in order to continue to observe the baby throughout KC and to assist the parent if required.

TRANSFERRING FROM THE INCUBATOR

Transferring out of the incubator can be a stressful event for the preterm neonate. However, nursing staff can reduce any stress by ensuring the process is slow and steady.

Infant Preparation

- Perform cares and dress the baby in a nappy (booties and hat are optional and may produce over warming). If the infant weighs less than 1000g or is within 1 hour of birth, a hat should be worn to start KC.
- Perform any necessary procedures that may later interrupt KC if possible (i.e. blood test/passing feeding tube).
- Avoid transfer immediately after a bolus feed.
- Prepare all wires and lines before transfer- ensuring that all lines and breathing tubes are at the same side as the chair or have enough length to reach without pulling.
- Position changes should be slow and steady. Do not flip the baby quickly and suddenly, as this can be very distressing. When possible, the baby should be touched gently and talked to before moving them so that they have time to wake. **A baby should never be rapidly 'flipped over' 180 degrees –known in the literature as the 'preemie flip';** doing this before KC can increase the chances of not tolerating the transfer.
- If ventilated, auscultate the chest for quality of breath sounds and suction if needed.
- If UVC/UAC in situ coil and tape lines to the nappy to secure.

Parent Preparation

- It is important that parents are informed about the benefits and process of KC and offered supporting information. (BLISS "Skin to skin with your premature baby").
- Choose a convenient time for the parents, where the experience does not need to be rushed.
- Provide privacy for parents to prepare clothing – suggest parents wear clothing that allows access to the chest, alternatively use a kangaroo shirt. If the mother wears a bra, request that it is removed if they are comfortable to do so, as the infant may not warm and will not receive the developmental benefits of KC with a bra in-situ, as it prevents complete ventral skin-to-skin contact.
- Jewellery should be removed to prevent accidental injury.
- Minimal use of perfume/aftershave should be encouraged due to the possibility of irritating the baby’s skin and the overstimulation of the sensory organs.
- Parents should be discouraged from smoking at all times, but especially before any skin-to-skin contact.
- Provide a calm environment with a comfortable chair, preferably one that reclines. The optimal chair for experiencing KC is a recliner, as this reduces the risk of poor head positioning.
- Explain to the parents what you plan to do and what you require them to do.
- Offer a hand-held mirror to enable the parent to see their baby.
- Advise parents to bring a drink and to go to the toilet before KC time.

Nursing considerations

- Aim to provide KC as soon after birth as possible to provide comfort and promote bonding for parents and baby.
- Delivery room cuddles should be offered as a priority where medically appropriate.

- KC should be offered at least daily unless medically inappropriate; if not offered, the reason why should be documented.
- If the baby does not tolerate KC well, please ensure that you give the baby time to settle as moving from the incubator can cause a stress response, and they may settle down given time. If immediately concerned and the baby has to go back into the incubator, please document this clearly on the KC chart (Appendix 2).
- If the baby is on breathing support/ has central lines in, it is best practice to have two nurses perform the transfer to ensure that breathing support and lines are secure throughout. **If the baby is ventilated, it is essential for at least two nurses to perform the transfer. More nurses may be required in some cases; This should be assessed on an individual patient basis.**
- If another nurse is assisting, ensure everyone is aware of their job before transferring baby.
- Once on the parent's chest, ensure that the baby is not lying on any lines, wiring or tubing that will be uncomfortable and may cause pressure sores/ indentations/ bruising on the baby's skin.
- Transfer the baby from the incubator and bring them in close to your body- avoid moving the baby at arm's length, as this provides no comfort or support, and they can quickly lose heat.
- Lean close to the parent and place baby slowly onto their chest in an upright prone position.
- Ensure the feeding tube is left out of the sheet so you can continue to feed the baby.
- Continue all routine cardiorespiratory monitoring on the baby.
- Allow the baby 15 to 30 minutes after transfer to stabilise vital signs.
- The baby’s oxygen requirement may increase following transfer. However, this factor on its own should not be a reason to stop KC. Often the oxygen requirement will settle to a level lower than 'normal'.
- Monitor the baby closely for any signs of distress.
- Ensure access to emergency equipment and that all equipment has been checked prior to engaging in KC.

SIGNS OF DISTRESS

- Crying.
- Squirming/wriggling and not settling.
- Colour change pale/mottled.
- Limp, floppy, or tense tone.
- Physiological instability.

METHODS OF COMFORT

- Adjust position (straight trunk and neck; not a slumped-together position, head turned sideward).
- Ensure lines and tubes are not pulling on the baby's skin or limbs.
- Ensure the baby has not slid down the parent’s chest and become squashed or twisted.
- The baby may be too hot or cold – add or remove blanket accordingly.
- Encourage the parent to talk soothingly to their baby.

DURATION OF KANGAROO CARE

UNICEF's Baby Friendly Initiative suggests KC should be done for a minimum of 1 hour to allow the baby to experience an entire sleep cycle whilst being held skin-to-skin.

If a KC session cannot be longer than an hour, any amount of skin-to-skin is better than none. It usually takes about 30 minutes for the baby to stabilise. Providing the baby is stable, no time limit should be set. Babies who are deeply asleep should be undisturbed for as long as possible. Termination of KC should be at the parent's request, or if the baby exhibits any of the following:

- Repeated or profound desaturation.
- Repeated or profound bradycardia.
- Repeated or profound apnoea.
- Dislodgement or concern about dislodgement of ET tube.
- Dislodgement or concern about dislodgement of venous access.
- Unrelenting irritability **AND** attempts to make the infant more comfortable have failed.

FEEDING DURING KANGAROO CARE

Babies who need a breast/cup or bottle feed during KC will need to change their position during the feed but can continue with KC after completing the feed.

Babies who are tube feeding can continue to be fed as usual. Observe and document any concerns.

DOCUMENTATION

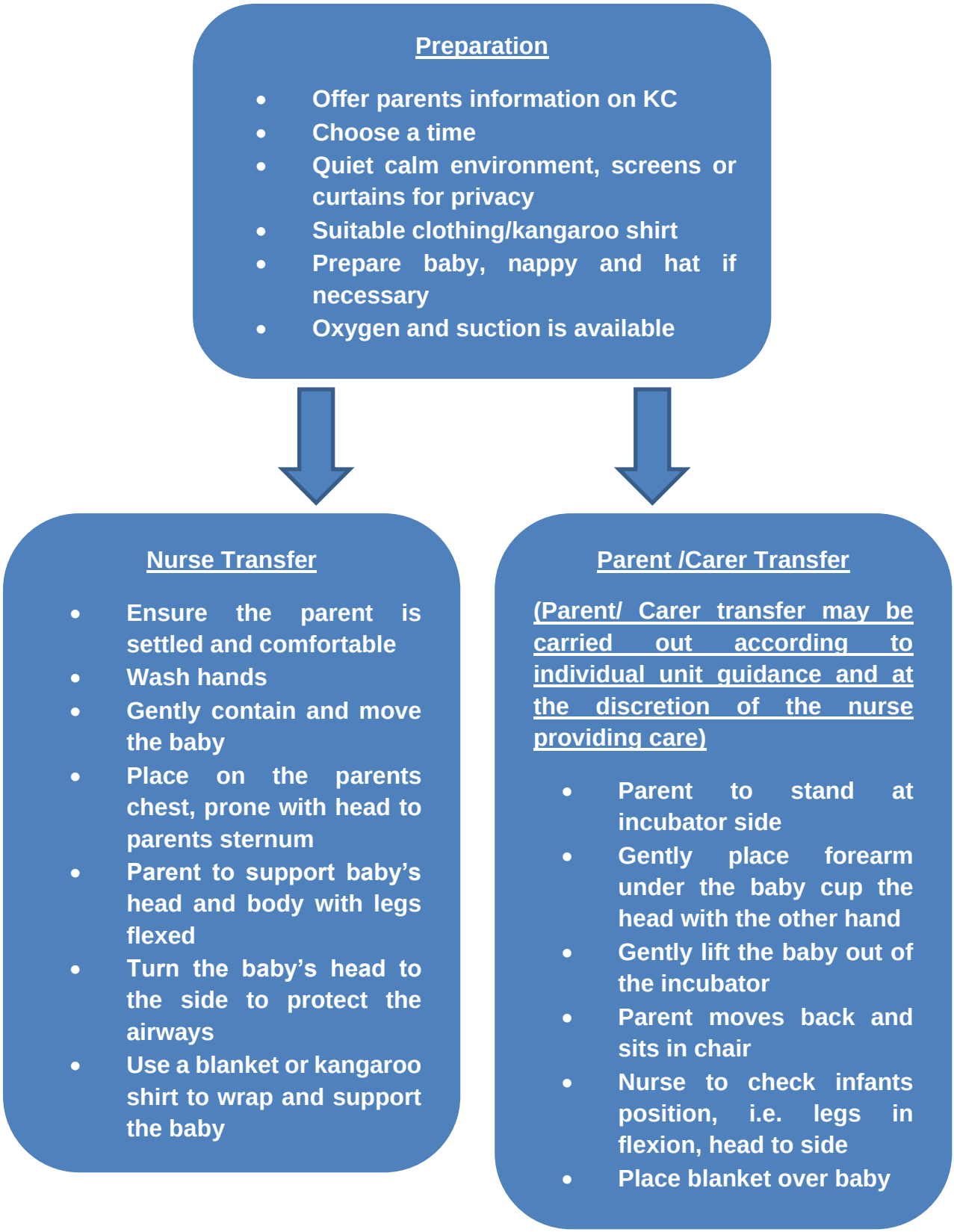
Documentation is an integral part of KC as it allows nurses to see how often the baby has KC, for how long they have it, and how well it is tolerated.

Document in the nursing notes and utilise the KC chart (Appendix 3) with stickers (Appendix 4).

FOLLOWING DISCHARGE

KC should continue to be encouraged after discharge from the Neonatal Unit to promote the bonding process further. In addition, before discharge, parents should be made aware of the Lullaby Trust guidance regarding safe sleeping to ensure that the practice is carried out safely.

FLOWCHART


Preparation
Offer parents information on KC
Choose a time
Quiet calm environment, screens or curtains for privacy
Suitable clothing/kangaroo shirt
Prepare baby, nappy and hat if necessary
Oxygen and suction is available
Nurse Transfer
Ensure the parent is settled and comfortable
Wash hands
Gently contain and move the baby
Place on the parents chest, prone with head to parents sternum
Parent to support baby's head and body with legs flexed
Turn the baby's head to the side to protect the airways
Use a blanket or kangaroo shirt to wrap and support the baby
Parent /Carer Transfer
(Parent/ Carer transfer may be carried out according to individual unit guidance and at the discretion of the nurse providing care)
Parent to stand at incubator side
Gently place forearm under the baby cup the head with the other hand
Gently lift the baby out of the incubator
Parent moves back and sits in chair
Nurse to check infants position, i.e. legs in flexion, head to side
Place blanket over baby

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FURTHER READING

Bliss Information Leaflets for Parents and Staff - http://www.bliss.org.uk/skin-to-skin-and-kangaroocare

Bliss 2011 **The Bliss Baby Charter Standards**. 2nd Edition. London, Bliss Publications

Kangaroo Mother Care. Nils Bergman. www.kangaroomothercare.com

UNICEF Baby Friendly Initiative – Neonatal Standards and Professional Resources : https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/

https://www.lullabytrust.org.uk/wp-content/uploads/Safer-sleep-saving-lives-a-guide-for-professionals-web.pdf

APPENDIX 1

I'M READY FOR

Kangaroo Care

NHS

East Midlands Neonatal

Operational Delivery Network

APPENDIX 2

AFFIX PATIENT LABEL

NHS
East Midlands Neonatal
Operational Delivery Network

Kangaroo Care Chart

Date	Events during or immediately after transfer (Apnoea/bradycardia/desaturation etc.)	Events during Kangaroo Care (Apnoea/ bradycardia/desaturation etc.)	Duration	Interventions required and/or reason for ending Kangaroo Care	Signature

APPENDIX 3

AFFIX PATIENT LABEL

best beginnings
Working to give every baby in the UK the healthiest start in life

Bliss
for babies born too soon, too small, too sick

kangaroo care record

Recommended guidelines for kangaroo care state a minimum of one hour as tolerated by the baby.

Please document in the baby's nursing notes how well Kangaroo care was tolerated and any concerns or interventions necessary during time out of the incubator.

For more information on how to use this record sheet and stickers visit
www.bliss.org/improving-care/kangaroo-care-stickers or www.bestbeginnings.org.uk/kangaroo-care-stickers

Requested/offered	Date & sign	Requested/offered	Date & sign	Requested/offered	Date & sign
Mum/Dad Duration:		Mum/Dad Duration:		Mum/Dad Duration:	
Requested/offered	Date & sign	Requested/offered	Date & sign	Requested/offered	Date & sign
Mum/Dad Duration:		Mum/Dad Duration:		Mum/Dad Duration:	
Requested/offered	Date & sign	Requested/offered	Date & sign	Requested/offered	Date & sign
Mum/Dad Duration:		Mum/Dad Duration:		Mum/Dad Duration:	
Requested/offered	Date & sign	Requested/offered	Date & sign	Requested/offered	Date & sign
Mum/Dad Duration:		Mum/Dad Duration:		Mum/Dad Duration:	

This kangaroo care sticker idea originated at the Royal Victoria Infirmary, Newcastle. A special thank you to neonatal nurse Claire Campbell and to Joanne Wishart, a mum on the unit who designed the sticker, for giving their permission to develop this resource for use in units across the UK.

For more copies of this record sheet or stickers please contact hello@bliss.org.uk or call 020 7378 1122

APPENDIX 4