

Kangaroo Mother Care

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Kangaroo mother care (KMC) is a method of caring for newborn infants. In this method the infant is placed between mother's breasts in direct skin-to-skin contact. It is particularly useful in caring for low birth weight (LBW) infants below 2000 gm. Nurses have a major role to play to initiate and motivate mothers to practice KMC as they conduct deliveries in various health settings and function in neonatal ICUs.

Components of kangaroo mother care

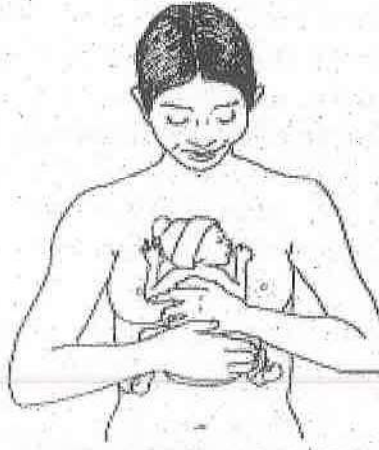
Skin to skin contact: This component involves direct skin-to-skin contact of the newborn with the mother. It should be early and continued for prolonged periods of time.

Exclusive breastfeeding: Most of the babies below 2000 gm would gain weight adequately on exclusive breastfeeding.

Physical, emotional and educational support: This should be provided by the nursing and medical staff to the mother and the family.

Early discharge and follow up: KMC should be initiated in the hospital under supervision. KMC would facilitate early discharge from the hospital and this practice should be continued at home. These babies should be followed up regularly

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to ensure a normal outcome.

Benefits of KMC

KMC has been shown to have benefits in many areas:

Breastfeeding: Studies have shown that KMC results in increased breastfeeding rate as well as increased duration of breastfeeding.

Thermal control and metabolism: Studies carried out in low-income countries showed that prolonged skin-to-skin contact between the mother and her preterm/LBW infant provides effective thermal control and it is associated with a reduced risk of hypothermia. KMC results in normal temperature during the procedure without any risk of hypothermia.

KMC satisfies all five senses of the baby. The baby feels warmth of mother through skin-to-skin contact (touch), she listens to mother's voice & heart beat (hearing), sucks on breast (taste) has eye contact with mother (vision) and smells

mother's odour (olfaction).

Growth: Infants cared for by KMC have a slightly better daily weight gain during hospital stay as evident from several studies conducted in different parts of world.

Other effects: KMC helps both infants and parents. Mothers report being significantly less stressed during kangaroo care than when the baby is receiving incubator care. Mothers prefer skin-to-skin contact to conventional care and report increased confidence, self-esteem and feeling of fulfillment. They report a sense of empowerment, confidence and a satisfaction that they can do something positive for their preterm infants. Fathers felt more relaxed, comfortable and better bonded while providing kangaroo care.

KMC does not require additional staff unlike in incubator care.

Eligibility criteria for KMC

Baby

All babies are eligible for KMC. However very sick babies needing special care may preferably be cared under radiant warmer and KMC can be started after the baby has become stable. Some guidelines for practicing KMC include:

- i. **Birth weight 1800 gm or above:** If stable, can be started on KMC soon after birth.
- ii. **Birth weight: 1200-1799 gm:** In such case the delivery should

take place in an equipped facility, which can provide neonatal care. Should delivery occur elsewhere, the baby should be transferred to such facility soon after birth, preferably with the mother. One of the best ways of transporting small babies is keeping them in continuous skin-to-skin contact with the mother. It may take a couple of days for a sick baby to become stable before KMC can be initiated.

iii. Birth weight below 1200gm: These babies benefit most from transfer before birth to a hospital with neonatal intensive care facilities. It may take days to weeks before baby's condition allows initiation of KMC. KMC can be initiated in a baby who is otherwise stable but still on intravenous fluids or some oxygen administration.

Mother

All mothers can provide KMC, irrespective of age, education, culture and religion. The following aspects must be taken into consideration when counselling for KMC.

i. Willingness: The mother must be willing to provide KMC. Nurses should counsel her adequately regarding different aspects of KMC. Once mother knows about KMC, she will be willing to provide KMC to her baby.

ii. General health: If the mother has suffered from complications during pregnancy or delivery or is otherwise ill, she should recover reasonably well before she can initiate KMC.

iii. Supportive family: She needs support to deal with other responsibilities at home. The other family members e.g. father or grandmother should also be encouraged to provide

kangaroo care to the LBW baby.

iv. Supportive community: This is particularly important when there are social, economic or family constraints.

Initiation of KMC

Counselling: When baby is ready for KMC, arrange a time with the mother that is convenient for her and her baby. The first session is important and requires time and undivided attention. Ask her to wear light, loose clothing. KMC can be provided using any front open garment. Provide a warm place for her. Respect her requirement of privacy while providing KMC. Encourage her to bring other key family members. Unless they are convinced, it will not be possible for the mother to do KMC at home.

Baby clothing: Baby should be naked except cap, socks and nappy.

Kangaroo positioning: The baby should be placed between the mother's breasts in an upright position. The head should be turned to one side and in slightly extended position. This slightly extended head position keeps the airway open and allows eye-to-eye contact between the mother and the baby. Avoid both forward flexion and hyperextension of the head. The hips should be flexed and abducted in a "frog" position; the elbows should also be flexed. Baby's abdomen should be somewhere at the level of the mother's epigastrium.

This way baby has enough room for abdominal breathing. Mother's breathing stimulates the baby, thus reducing the occurrence of apnea. Mother can

provide KMC sitting or when reclining in a bed or a chair. She can keep herself in slightly backward reclining position and support baby's body and neck using her own hand.

Feeding: The mother should be explained that she should breastfeed in the kangaroo position and that KMC actually makes breastfeeding easier. Furthermore, holding the baby near the breast stimulates milk production.

Psychological support: The mother should be encouraged to ask for help if she is worried. The nurse should be prepared to respond to her questions and anxieties.

KMC during Sleep and Resting

The mother can sleep with the baby in kangaroo position in a reclined or semi-recumbent position, about 15 degree from horizontal. This can be achieved with an adjustable bed, if available, or with several pillows on an ordinary bed. It has been observed that this position may decrease the risk of apnea for the baby. A comfortable chair with adjustable back may be useful for resting during the day.

Time of Initiation

KMC can be started as soon as the baby is stable. Babies with severe illness or requiring special treatment should wait until they are reasonably stable before KMC can be initiated. Short KMC sessions can be initiated during recovery with ongoing medical treatment (IV fluids, low concentration of oxygen). KMC can be provided while the baby is being fed via

orogastric tube. Once the baby begins to recover, nurses should motivate the family members to practice KMC.

Duration of KMC

Skin-to-skin contact should start gradually, with a smooth transition from conventional care to continuous KMC. Sessions that last less than one hour should, however, be avoided because frequent handling may be too stressful for the baby. The length of skin-to-skin contacts should gradually be increased to become as prolonged as possible, interrupted only for changing diapers. When the mother needs to be away from her baby, other family members e.g. father can also help by caring for the baby in skin-to-skin kangaroo position. Encourage the mother to increase the duration of KMC each time. The aim should be to provide KMC as long as possible.

The baby can be discharged

from the hospital when the following criteria are met:

- The baby's general health is good and there is no concurrent disease such as apnea or infection.
- Baby is feeding well, and is receiving exclusively or predominantly breast milk.
- Baby is gaining weight (at least 15g/kg/day for at least three consecutive days) and has regained birth weight.
- Baby's temperature is stable in the KMC position (within the normal range for at least three consecutive days).
- The mother is confident of taking care of her baby at home and would be able to come regularly for follow-up visits.

These criteria are usually met by the time baby weighs around 1500 gm.

KMC should be continued for some time at home. It can be weaned off, once the baby starts becoming intolerant to the procedure or at 40 weeks of post conceptional age.

Summary

Kangaroo mother care (KMC), defined as skin-to-skin contact between a mother and her newborn, frequent and exclusive or nearly exclusive breastfeeding, and early discharge from hospital, has been proposed as an alternative to conventional neonatal care for low birthweight infants.

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3. Anderson GC, Marks EA, Wahlberg V, 1986. Kangaroo Care for premature Infants. *American Journal of Nursing*. July 807-809.
4. Colonna F, Uxa F, Da Graca AM, deVonderweid U, 1990. The "kangaroo-mother" method: evaluation of an alternative model for the care of low birth weight newborns in developing countries. *Int J Gynecol Obstet* 31: 335-339.

Election Results: TNAI Gujarat State Branch

The elections of TNAI Gujarat State Branch were held on August 26, 2008, at Main Hall, Government Medical College, SSG Hospital, Vadodara, Gujarat. The following Office Bearers were elected:

President: Mr. I.A. Kadiwala, Staff Nurse, SSG Hospital, Vadodara-390005. **Vice-President:** Mr. Dipakamal B. Vyas, Staff Nurse, Male Nurse, SSG Hospital, Vadodara-390005. **Secretary:** Mr. Kiran V. Domadia, Nursing Tutor, B/302, Abhisekh Apartments., Next to Vaishali Cinema, Varrachcha Road, Surat-395006. **Treasurer:** Mr. Vinod N. Patel, Staff Nurse, SSG Hospital, Vadodara -390005. **SNA Advisor:** Mr. Dipak Bhai Paramar, Nursing Tutor, Sir T. Hospital, Bhavnagar. **Chairperson, Membership Committee:** Mr. Jitendra R. Meh, Staff Nurse, 17, Jagannath Plot, Rajkot. **Chairperson, Programme Committee:** Mr. Sunil C. Modi, Nursing Tutor, Vaibhav Block, New Nursing Qtrs., New Civil Hospital Campus, Majuragate, Surat-395001. **Chairperson, Nursing Education & Research:** Mr. Kamalkant Hadavadia, Nursing Tutor, Sir T. Hospital, Bhavnagar. **Chairperson, Socio-Economic Welfare Committee:** Mr. Dinesh S. Agrawal, Staff Nurse, Matron Office, New Civil Hospital Campus, Majuragate, Surat-395001. **Chairperson, Nursing Services Section:** Mrs. Jayshreeben Jani, Principal, School of Nursing, V.S. Hospital, Ahmedabad. **Representative, LHV/ANM League:** Ms Dharmistaben Joshi, School of Nursing, Nursing Tutor, General Hospital, Himmatnagar. **Zonal Representative, South Zone:** Mr. Vinod K. Vyas, Nursing Tutor, School of Nursing, MGG Hospital, Navsari. **Zonal Representative, Central Zone:** Mr. Hitesh R. Bhatt, Staff Nurse, Mental Hospital, Baroda-390005. **Zonal Representative, Saurashtra & Kutch Zone:** Ms Jayesh Andharia, Staff Nurse, Sir T. Hospital, Bhavnagar. **Representative, Public Health Section:** Mr. Raval Dharmendra H., Nursing Tutor, School of Nursing, G.G. Hospital, Jamnagar-360008.

Mrs. Urmila M. Raval, Returning Officer, TNAI Gujarat State Branch Election-2008, House No.1008/10, First Floor, Bhairav Suiting-Shirting, Jalapore Road, Navasari-396445, Gujarat