

iKMC Episode #1 December 2022: Answered Q&A

Reduced sepsis?

Yes Sepsis reduced by 18% among newborns in iKMC group.

Many facilities are different. Mothers coming into NICU? How big is such NICU that mother sleeps there?

Mothers stay with their babies 24X7. NICU was designed with enough space for mother's bed with each baby. This roughly makes double the size of conventional NICU.

Many mothers struggle to stay with a premature in the hospital when there are so many other children at home. How have you met those challenges?

If mother is not able to stay, then a female surrogate is allowed to stay with baby in MNCU during the periods, mother is not available.

What about bringing infection from outside into NICU?

Health care providers and administrators were concerned of the potential increase in infections by the continuous presence of mothers/surrogates in the MNCU. However, mothers and surrogates were trained to follow asepsis routines and infection is actually reduced in iKMC group.

How mobile can the mother be using kangaroo care?

With the binder and KMC garment in place, mother can easily walk and can do simple activities with baby in KMC position.

Early initiation of breastfeeding, may we perform it with the stable baby, but mother is not stable due to general anesthesia or severe preeclampsia ? or we must wait until the mother stable ?

Unstable mothers are not shifted to MNCU for iKMC. Another female caregiver (surrogate) provides iKMC till mother is stable to be shifted to MNCU.

What minimum birth weight can we perform early initiation of breastfeeding or KMC with the stable baby case ?

In this study, iKMC was provided to babies as low as 1000 gm and iKMC proved to be efficacious and safe in these small babies.

How can we do KMC from the baby with ventilator ?

Babies on ventilation were not included in iKMC study.

Wondering if maternal factors have been difficult to manage with iKMC, such as PPH for the mother?

Unstable mothers due to PPH or severe pre-eclampsia are not shifted to MNCU for iKMC. Another female caregiver (surrogate) provides iKMC till mother is stable to be shifted to MNCU.

How long during the day the mother can keep her baby by this method?

Mothers provide iKMC day and night with median duration of 17 hours per day.

How does iKMC reduce infection? my concern is care givers may not follow the hygiene and sanitation while caring their babies?

Mothers and caregivers are trained to follow asepsis routines. In our experience, once mothers are made aware the importance of hygiene for their babies, they do follow asepsis routines. Also, iKMC reduces sepsis by protective effect of maternal microbiome and also these babies get early and exclusive breast milk feeding.

Thank you all presenters. why was a study site not chosen from Europe or America where this iKMC would have been compared with their environment and settings

Low middle income countries were chosen because of higher neonatal mortality in these countries esp among small sick babies.

Could you describe how this fantastic support continues after discharge?

Mothers get trained how to provide iKMC during stay in MNCU. They are also given two sets of binders and KMC garments so that they can continue this practice after discharge.

Do the studies claim that iKMC reduce mortality and morbidity in all newborns regardless of birthweight and gestational age?

Subgroup analysis of iKMC study shows intervention has similar efficacy across the categories of birth weight, gestational age

To establish M-NICU, we would certainly need space to accommodate the big adult beds in the NICU. This means a lot of NICU wards will have to undergo major structural renovations that most third world health facilities may not be able to afford.

This will need infrastructure changes. The main issue in most of the hospitals is nonavailability of adequate space. Mother's bed which is presently in postnatal ward needs to be placed inside NICU which needs reorganization of infrastructure.

I am wondering that are there any preparation for mother and their family for iKMC before delivery and how do you prepare mother and relatives during emergency delivery?

When a low birth weight baby is expected, mothers and their family are explained about method and advantages of iKMC. If she consents, then baby and mother are shifted to MNCU for iKMC.

The iKMC study was done in Central Hospitals. How easy will it be to translate these results to lower level health facilities?

NICUs in lower level facilities should be designed with all the provisions for mother to stay 24 × 7 as a caregiver to make them MNCU. Similarly, we should adopt this new design when renovating already functional NICUs. This will also need certain policy changes, i.e., allowing mothers/surrogates in MNCU (same as that for family centered care), shifting small babies from delivery areas to MNCU in KMC position, obstetric rounds inside MNCU, and giving essential care to mothers in MNCU by neonatal nurses. Pediatricians, obstetricians and policymakers need to be taken into confidence and convinced of the benefits and feasibility of MNCUs for this paradigm shift in care of small and sick newborns.

Do you have research planned to find the best ways of doing this?

WHO is conducting implementation research in four countries to find the best ways of doing this.

For how long should KMC be given to a new born baby?

iKMC stands for immediate and continuous KMC which means KMC to be started soon after birth (within 2 h) and to be given continuously (aiming up to 20 h per day) before and after stabilization.

What does the minimum care package include?

WHO minimum-care package of care for the newborn includes resuscitation at birth if required, thermal care, early and frequent breastmilk feeding, infection prevention and control, and respiratory support for respiratory distress syndrome.

As far as the logistics of bed space to allow mothers to comfortably provide iKMC, did the newborn units of the panelists use the existing space used for conventional KMC or have they scaled up space and beds to accommodate iKMC. What are the implications for implementation as far as the hospital administration?

At two sites, completely new Mother–NICUs were built in a nearby location and the existing NICUs were retained as the control NICUs. At the other three sites, modifications were made to convert half the existing NICUs to Mother–NICUs, and the other half served as the control NICUs.

With the ILCOR resuscitation guidelines of not drying babies less than 1.5kg but putting them in plastic bag during resuscitation... Does this study change this? Can these babies requiring resuscitation be started on iKMC...or is this going to be on a case-by-case basis?

During this study, babies requiring resuscitation were first resuscitated as per ILCOR guidelines. If baby achieved spontaneous respiration within one hour, only then baby was randomized to participate in the study, otherwise excluded from the study.

Do you have gowns for mothers or other caregivers.....they can change into before entering the wards apart from hand washing?

Mothers and other care givers are given two sets of KMC garments to change before entering MNCU.

Do you encounter barriers related to beliefs and culture for the implementation of the iKMC? mobilize a surrogate ASAP preferably before delivery?

No, among mothers and surrogates of all different religions and culture, we did not find any barrier related to beliefs.

hemodynamic stability was a (must) for starting KMC. with iKMC we should not wait for that?! Unstable mothers due to PPH or severe pre-eclampsia are not shifted to MNCU for iKMC. Another female caregiver (surrogate) provides iKMC till mother is stable to be shifted to MNCU.

What age and what weight you include in your study? Is that possible for babies less than 1000 grams and less than 28 weeks of GA?

Babies with birth weight 1000 to 1800 gm were included. Mean gestational age of included babies was 32.6 weeks. Babies less than 1000 gm were not included in this study.

When you say sick newborn, do you mean only respiratory problems? What about if baby has NEC, But if it is a question of survival in LMIC I would start immediately. A baby that has severe sepsis with DIC, NEC do you still give this iKMC? what is this thin line when to use iKMC?

All sick newborns 1000-1800 gm birthweight requiring level II NICU are started on iKMC. Babies with congenital malformation which interferes with providing Skin to skin contact and babies requiring level III NICU including ventilation were not provided iKMC during this study.