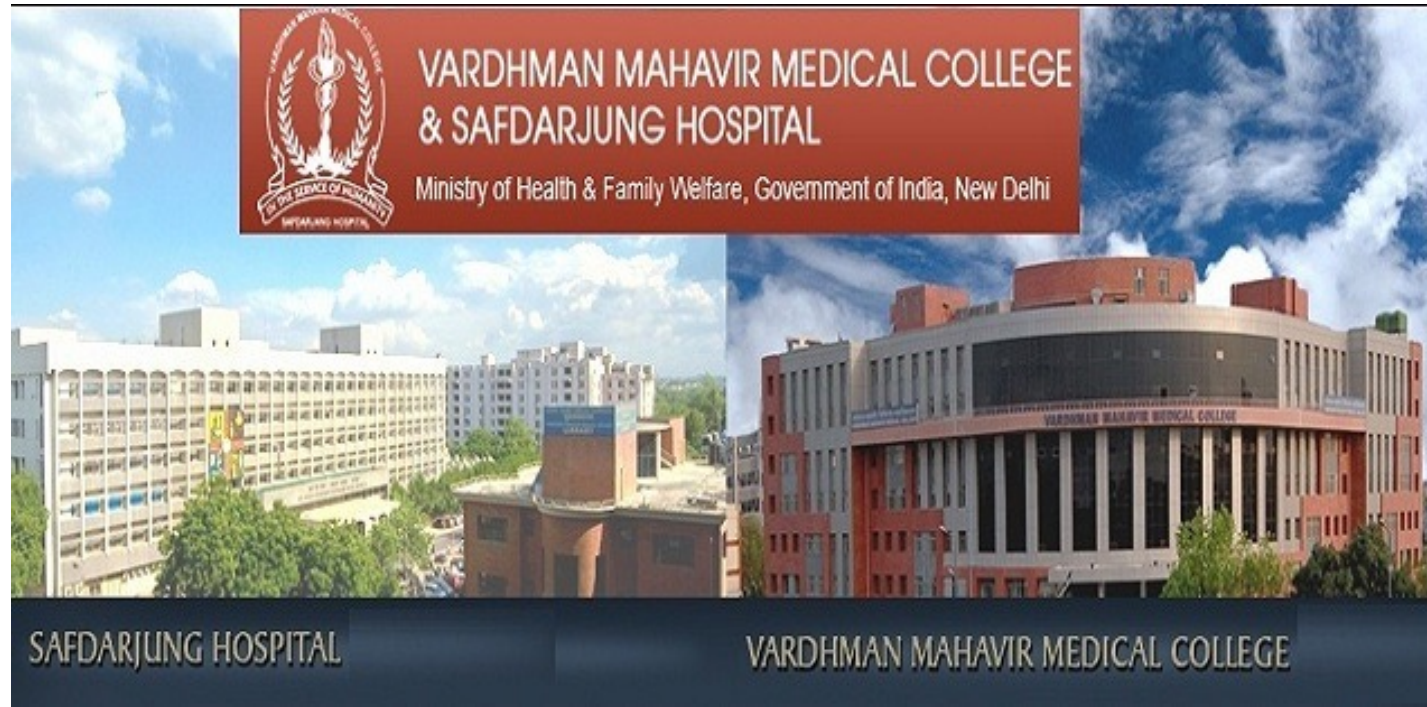


# Country experience with implementing Immediate “Kangaroo Mother Care”



Department of Paediatrics, Obstetrics, Safdarjung Hospital in collaboration with CDSA Delhi, India

# Challenges in operationalizing iKMC

- Initiating KMC in labor room **or operation theatre**
- Transportation in KMC position
- Keeping the mother and baby together in NICU: **Mother-NICU**
- Optimizing respiratory support in KMC Position
- Monitoring for asepsis/infection control practices
- Coordination with the obstetrics team for providing care **for the mother**

# Initiating KMC in Delivery room



- Initiation of skin to skin contact with mother on delivery table
- Designated iKMC area with bed and KMC chair in labour room
- Initiating KMC with surrogate and transporting to Mother-NICU

# Transport in KMC from labour room to Mother-NICU



# Mother-NICU



**Level II NICU - Mother and baby cared together 24\*7**

# Mother-NICU



**Supported from  
hospital budget**

**HR recruited  
for M-NICU**

**All provisions similar to an intensive care bed**

# M NICU -Infrastructure for care of Mother



**Mother  
examination  
cubicle**



**Pantry**



**Toilet & Bathing  
Room**

# Optimizing respiratory support in KMC Position



Maintaining Airway: Binder used to maintain neck in slightly extended position

Optimizing Nasal Interface for Continuous Positive Airway Pressure

Major challenge is ensuring proper fixation with baby in KMC

Continuous SpO<sub>2</sub> and Heart rate monitoring for optimizing PEEP and FiO<sub>2</sub>



# KMC garment

**Binder**



**KMC shirt**



# Concern of increased Infections



- A major concern on part of Pediatricians and policy makers that presence of mothers in NICU will bring more infections
- Systematic review 2014: strong evidence KMC reduces nosocomial infection
- Experience of M-NICU suggests mothers can be easily trained to follow asepsis routines

\* Conde-Agudelo A, Díaz-Rossello JL. Cochrane Database of Systematic Reviews 2014, Issue 4. Art. No.: CD002771.

# Care of Mothers in NICU

- A major challenge in M-NICU as these mothers have just delivered
- **Essential care package** developed for immediate post-natal care , in which neonatal nurses are trained
- Obstetric team to see and care for the mothers in the M-NICU unit
- Equal partnership & strong collaboration and co-ordination with the obstetricians a **Must**

A multi-country RCT to evaluate the impact of continuous KMC initiated immediately after birth compared to KMC initiated after stabilization in newborns with birth weight 1.0-1.8 kg on their survival in low-resource settings

(iKMC Study)

Minimal package of care for mother

India Site



# Couplet Care in Safdarjang, New Delhi, India



Medical Round of infant  
by neonatal team



Medical Round of mother  
by obstetric team

# Provides opportunity for Mother to be the primary care giver in M-NICU



**Mother changing diaper**



**Developmentally supportive care**



# M-NICU: Experience of mothers and staff

- Mothers get more support for breastfeeding and expression of breast milk
- Less anxiety and stress among mothers by being with baby in NICU all the time
- Better parental satisfaction compared to NICU
- Positive feedback from patients & staff
- Staff has less workload due to presence of mother in M-NICU as care provider



# Zero Separation of small and sick babies: iKMC study Experience

- **Zero separation of small and sick babies is feasible-** Median duration of STS in iKMC group 16.9 hours per day
- **Zero Separation is efficacious-** 25 % reduction in mortality, 35% in hypothermia and 18% in suspected sepsis in iKMC group
- **Zero Separation is safe-** No increase in risk of sepsis, hypothermia and hypoglycemia
- **Zero Separation is acceptable-** Positive feedback from parents and health personnel

# Mother-NICU in Covid Pandemic



After completion of study, M-NICU facility has been continued at Safdarjung Hospital

All mothers screened at the time of delivery and only Covid negative mothers transferred to M-NICU

All covid appropriate behaviours ensured in M-NICU including strict use of mask, hand hygiene and respiratory hygiene

If any mother develops symptoms suggestive of Covid infection, she is shifted immediately to Covid suspect area.

With these measures, this facility running successfully throughout the ongoing pandemic with 100% occupancy of 12 mothers with 12 to 18 babies as many of these mothers have twin babies with them.



**Mother is a  
care provider  
not mere  
visitor to NICU**



**Thank You**

**2017** We gave our fellow citizens Asia's first 24x7 Kangaroo Care Unit nesting a combined ICU for premature newborn babies and mothers

In the call of humanity...  
**Safdarjung Hospital**  
...delivering healthcare since 1942