KANGAROO MOTHER CARE

Kangaroo is an animal found in Australia. She invariably delivers a premature baby. The premature, baby kangaroo stays in the pouch of her mother, where it gets warmth and exclusive breast feeding till it is mature enough to survive outside.

Milestones in KMC History

1978	• Team of pediatricians started KMC in Instituto Materno Infantil (IMI) in Bogota, Colombia
1994	• KMC was introduced in India
2003	• WHO formally endorsed KMC and published KMC practice guidelines
2004	• Centres of excellence established at three centres AIIMS, PGI Chandigarh & KEM, Mumbai
2014	• MOHFW, Government of India's Operational guidelines on KMC & optimal feeding of LBW

What is KMC?

Kangaroo Mother Care (KMC) is a simple method of care for low birth weight infants that includes early and prolonged skin-to-skin contact with the mother (or a substitute caregiver) and exclusive & frequent breastfeeding.

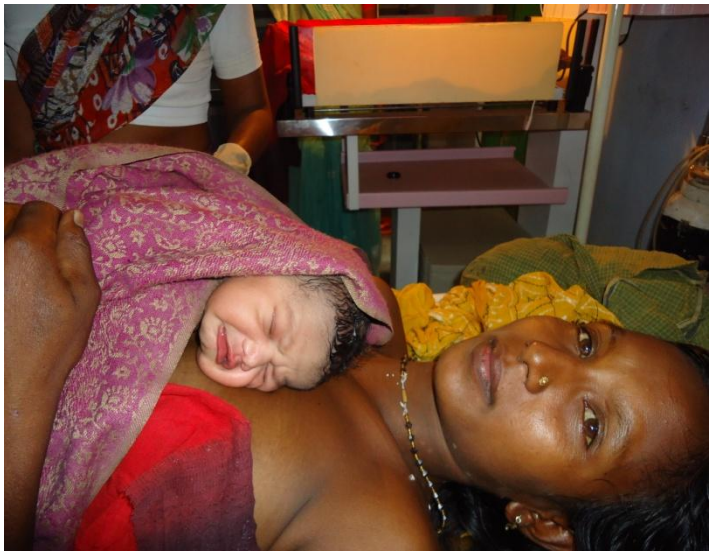
Short: 4 hours daily* **extended**: 5-8 hours daily* **long**: 9-12 hours daily* **Continuous:** More than12 hours daily*

Benefits to the newborn

- ✓ Stabilizes body temperature
- ✓ Decrease morbidities; better neurodevelopment
- ✓ Early discharge
- ✓ Promotes breastfeeding; prevents infection
- ✓ Encourages bonding in mother & Child

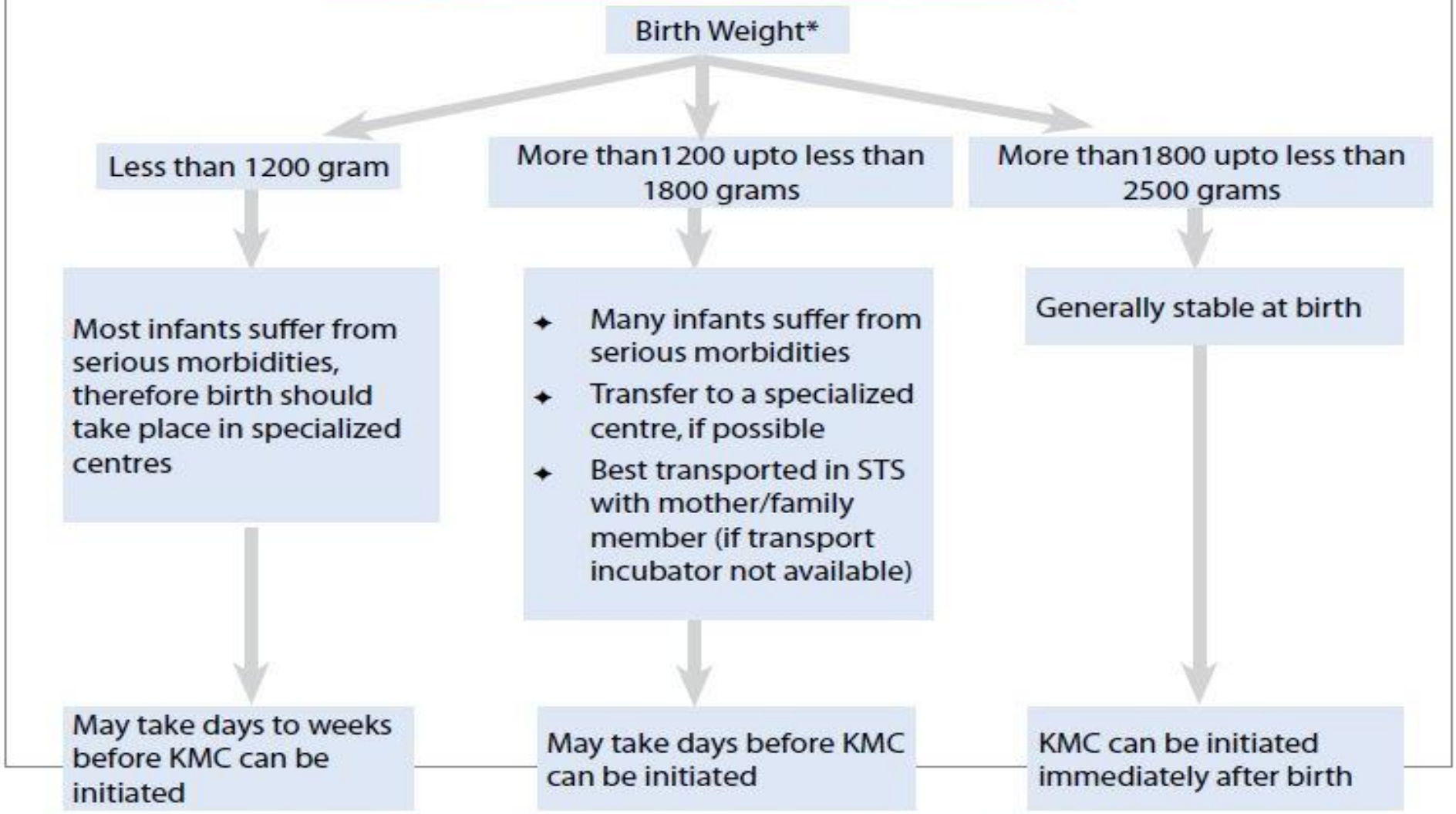
Skin-to-Skin contact

However, KMC should not be confused with routine skin-to-skin care at birth.



"World Health Organization (WHO) recommends skin-to-skin care immediately after delivery for every newborn, irrespective of the birth weight"

Figure 1: Time of Initiation of KMC



* Cut-off birth weight for KMC has been based on Operational Guideline of Facility Based Newborn Care

KMC can be provided by mother, father and other adult family members who is willing, healthy with basic standards of hygiene

How to provide KMC?

Counseling; Effective counseling for the initiation of KMC is a pre-requisite to overcome socio-cultural barriers and anxiety towards handling a low birth weight infant by the mother and health care providers

Clothing

- **Mother:** Any front-open, light dress as per the local culture, not mandatory to have any special dress
- **Infant:** should be dressed in cap, socks, disposable diapers and front-open sleeveless shirt or ‘Jhabala’ made of a soft natural fabric like cotton.

Kangaroo Bag

Baby Bag

KMC Position

1. The infant should be placed between the mother's breasts in an upright position.
2. The head should be turned to one side and in a slightly extended position.
3. The hips should be flexed and abducted in a "frog" position; the arms should also be flexed.
4. The infant's abdomen should be at the level of the mother's epigastrium.
5. Support the infant from the bottom with a sling/binder.

➢Mother in the KMC position can walk, stand, sit, or engage in activities. If comfortable, mother can sleep in KMC position with her infant

➢Infants receiving KMC should be monitored carefully during KMC to ensure that the infant's airway is clear, breathing is regular, colour is pink and s/he is maintaining temperature.

Discharge & Follow-up

Discharge

The infant is

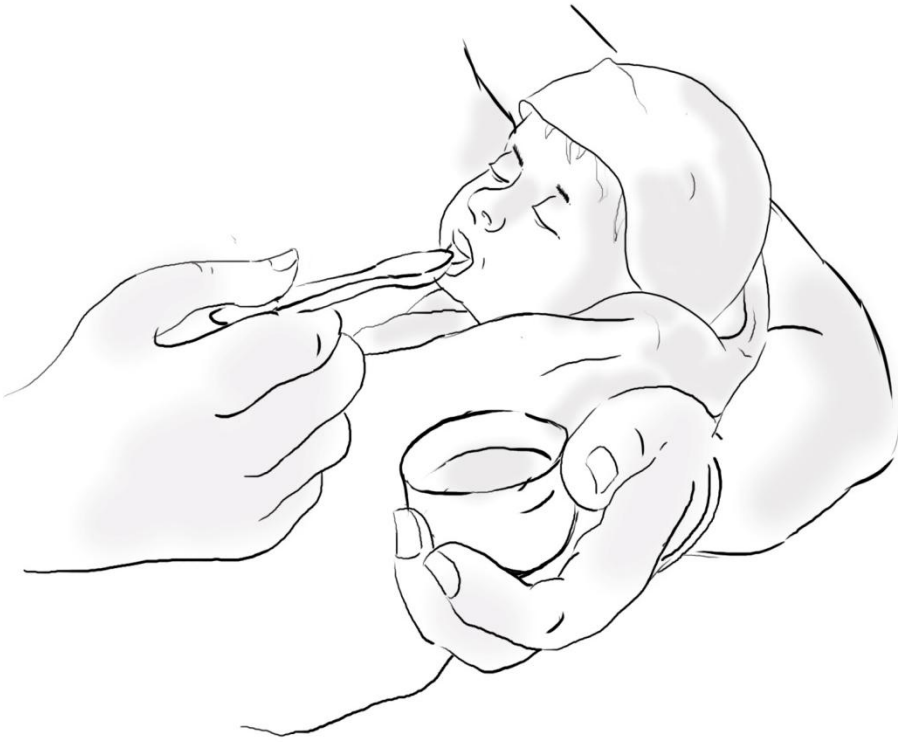
- Stable and not on parenteral medication
- Maintaining temperature in mother's bed for 3 consecutive days at room temperature
- Gaining 15-20 grams per day for at least 3 consecutive days
- Accepting feeds directly from breast (preferable) by spoon, paladai or cup

Follow-up

- Follow-up is a fundamental prerequisite of KMC, to make a regular assessment of growth, sensory functions, behaviour and neurodevelopment.
- ASHA will continue to provide care to the infant under HBNC in the community, following discharge
- First Follow-up should be at one week, followed by fortnightly follow-ups till next two visits. Additional follow-up visits may be done until s/he reaches 40 PMA/2500 grams.

OPTIMAL FEEDING OF LOW BIRTH WEIGHT INFANTS

Low birth weight (LBW) infants need optimal nutrition during the neonatal period for proper growth and development. Appropriate feeding of low birth weight and very low birth weight infants improves their chances of survival and is important for their optimum growth and development.



Breastfeeding

The best milk for LBW infants is mother's milk. All else is inferior.

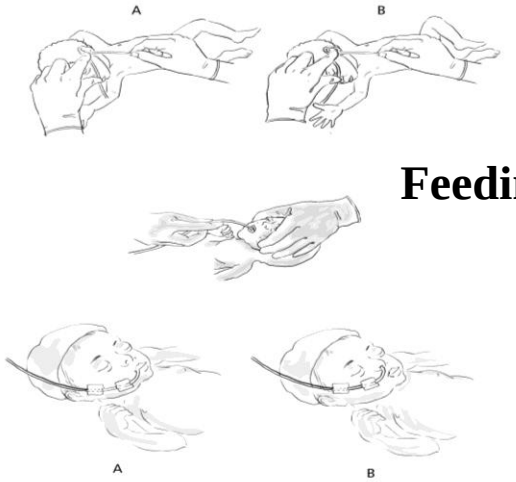
In case mother's milk is not available, then the choices in the order of preference are:

- **Expressed donor milk** from other lactating mothers.
- **Formula milk-** When not enough breast milk is available to meet the needs of a LBW infant, formula milk may be given with proper preparation and hygiene.
- **Animal Milk-** Cow or buffalo milk are the last choice Such milks are unsuitable and may be given with great caution without dilution with alternate methods of feeding.

"Bottle feeding is not appreciated"

Alternative feeding methods

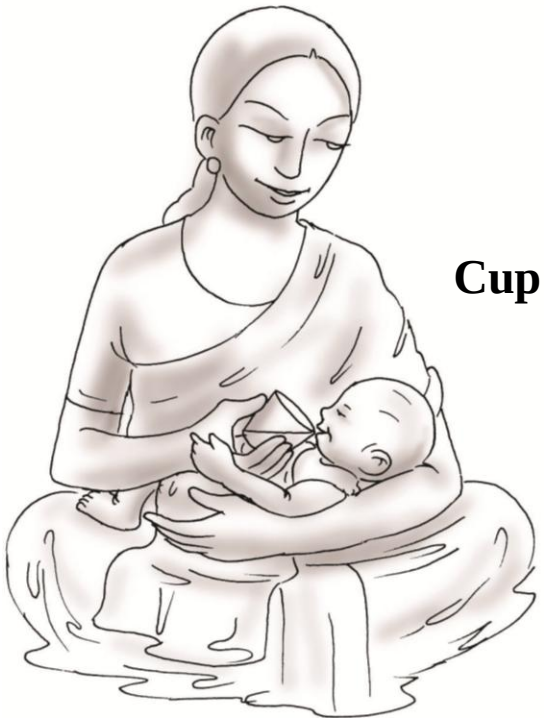
Paladai



Feeding tube

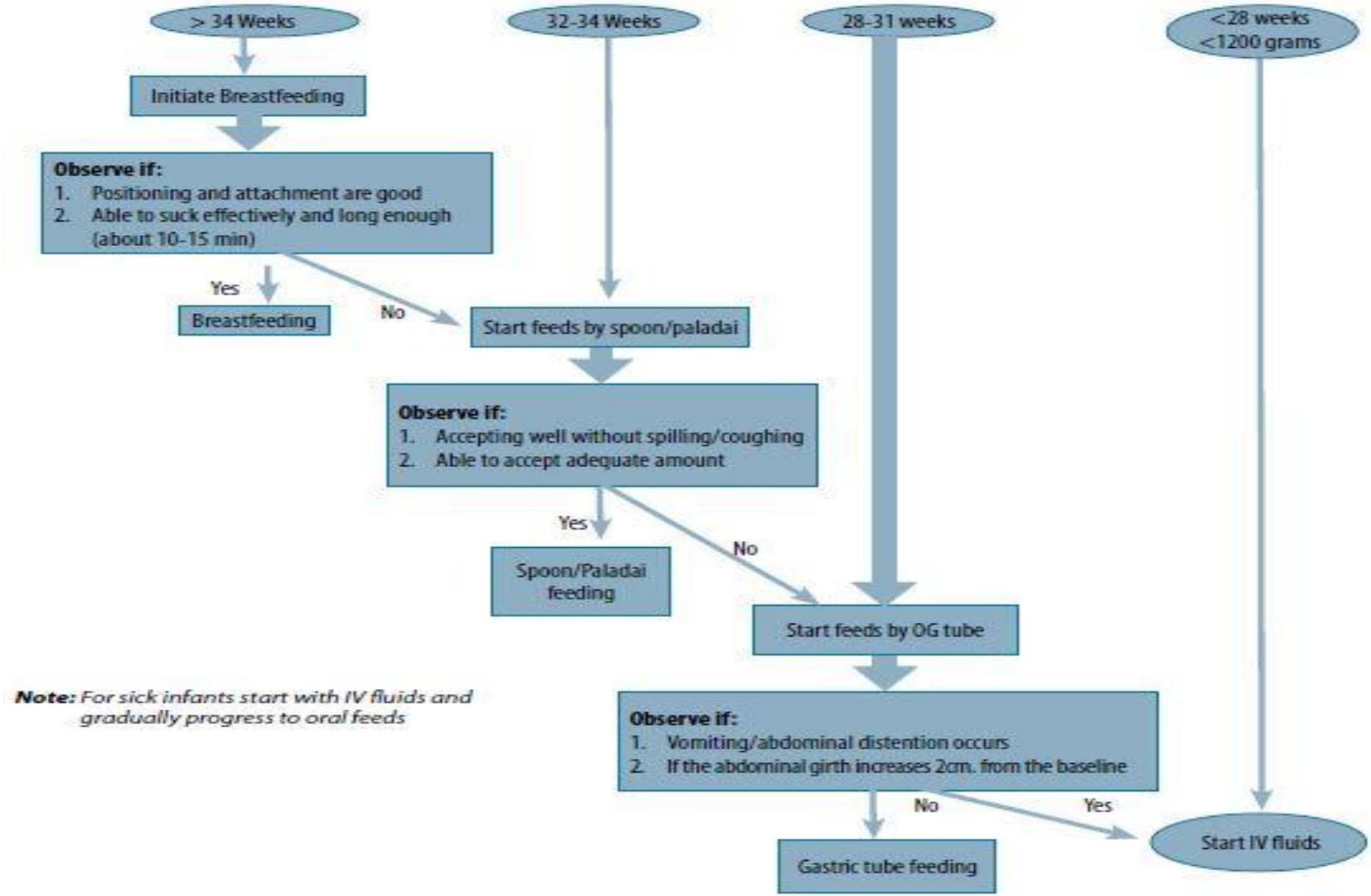
Feeding tube, spoon, paladai or cup are the alternative methods of feeding when direct breastfeeding is not possible.

Spoon

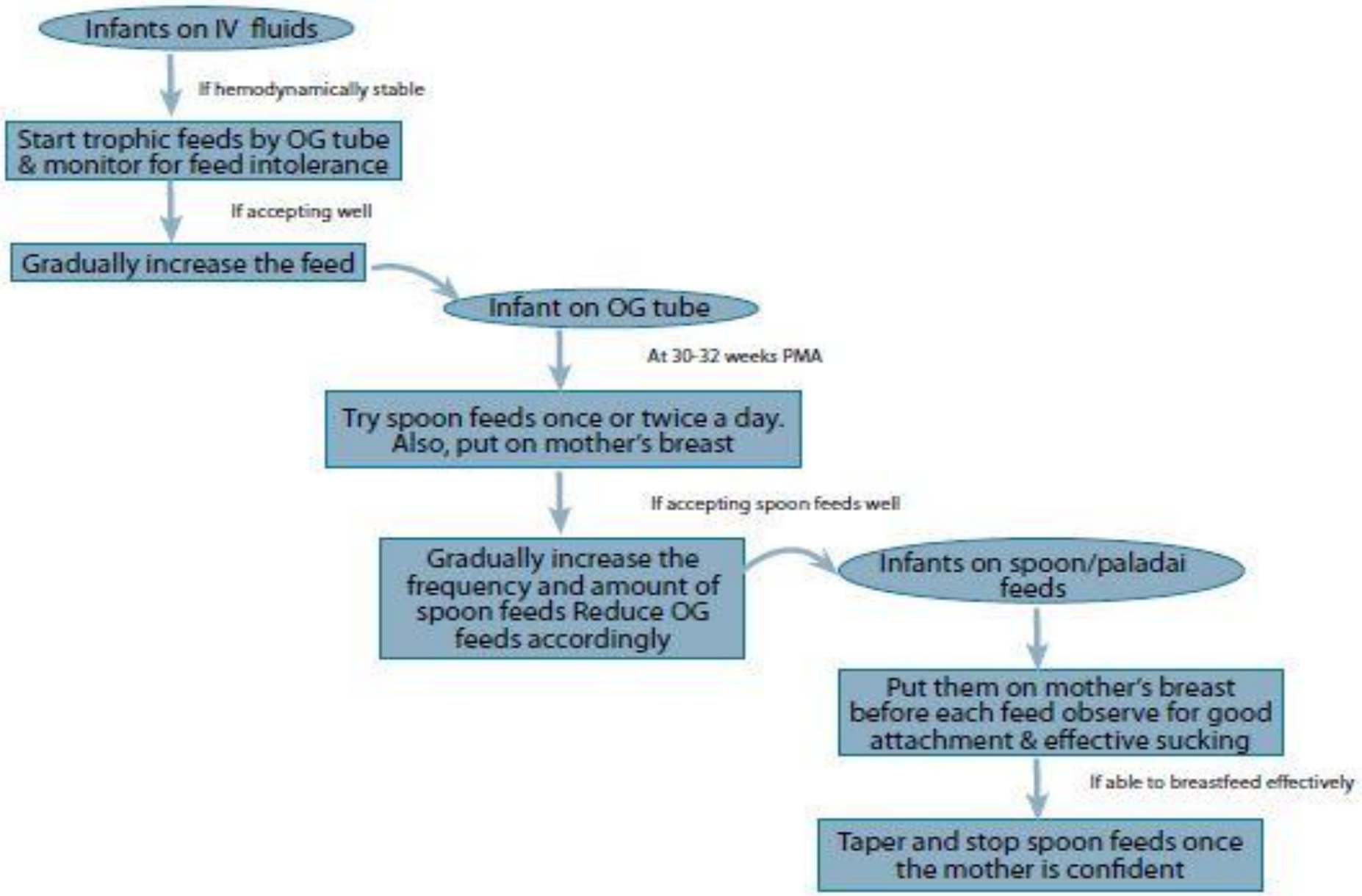


Cup

Feeding progression: Infant should progress from the initial method through the intermediate steps to feeding exclusively from the breast directly.



Principles of advancing feeding modes



Monitoring of infants for adequate feeding

Infants lose weight in the first few days, loss would not exceed 10-15% of the birth weight.

They regain their birth weight by about 2 weeks and then 15-20 grams per kilogram of their own body weight per day.

For infants below 1,500 grams (less than 32 weeks), use a postnatal growth chart to plot weight every day until they are of 40 weeks PMA or 2500 grams.

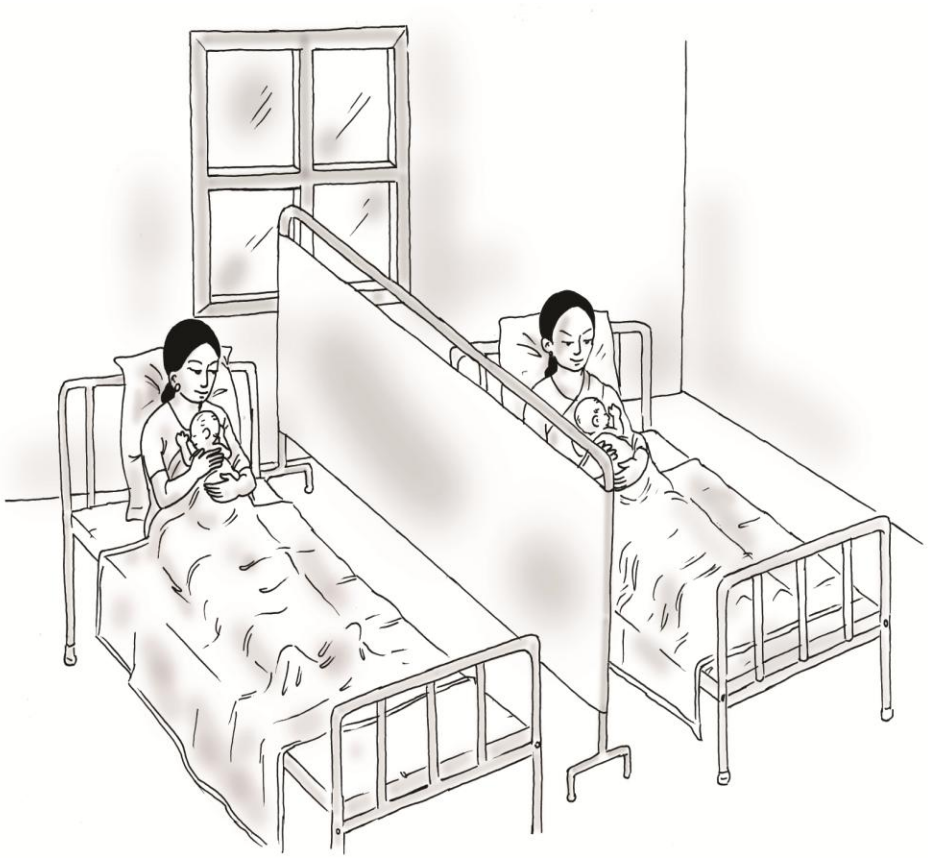
If the infant has inadequate weight gain, the provider should check the amount of intake, and assess and spluttering/ spillage.

Nipple and breast problems in the mother should be looked for.

KMC Roll out plan; The aim is to advocate KMC to be practiced for all infants eligible for KMC at public health facilities.

Model KMC services to be established in 25 Regional & State Resource Centers by the end of 2017

KMC services to be provided in all SNCUs and well-functioning NBSUs (at CHCs and FRUs) across the country



States level activities;

- State level orientation cum planning workshops for KMC roll out.
- Identification of medical colleges as state resource centers.
- Initially, saturate the SNCUs with KMC services on priority..
- Develop resource pool for training and ensure adequate and trained human resource at SNCU.
- Seek support from respective state lead development partners to ensure KMC implementation
- Review progress of implementation every quarter.
- Developing linkages with RBSK and community follow-up by ASHA also integrate KMC into FBNC.

District Level activities

- Carry out civil work/refabrication necessary for ensuring KMC.
- Conduct orientation/refresher trainings of counsellors and health providers
- Identify high case load facilities for ensuring KMC services.
- Ensure record keeping and timely reporting at facilities

Developing a KMC Unit

Infrastructure;

- KMC Unit of 8-10 beds recommended for every hospital with SNCU.
- KMCU must be the integral part of the existing/new upcoming SNCUs/MCH wings/Postnatal wards & NBSU
- The neonatal units at all Medical Colleges to be strengthened to provide appropriate newborn care including KMC.

Human Resource; Available regularly with most SNCUs. Therefore, utilize from regular supply and may budget, if required.

Capacity Building; The existing training modules for F-IMNCI and FBNC may be used for orientation.

Specifications; ***Refer to guidelines for detailed budget calculations***

"However, provision of KMC should not wait for the establishment of KMCU'

Thanks

For details;

Child Health Division, MOHFW, Government of India, Nirman Bhavan, New Delhi