**Aims and Objectives**
- To obtain EBM in >80% of VLBW infants within 48 h of admission to NICU.
- To improve volume of EBM obtained in first 48 h by more than 100% of baseline.
- To decrease the time of availability of first EBM by 20% of baseline.
- To improve proportion of EBM volume usage (Once on at least 100 mL/kg/day feeds) by more than 20% of baseline.

**Primary Drivers**
- Educate and Counsel Mothers
- Improve EBM expression in the NICU

**Secondary Drivers**
- Antenatal/post natal counselling
- Disseminate information
- Stress management

**Change Ideas**
- Identify mother antenatally
- Give mothers educational materials/brochures antenatally
- Give brochures at admission
- Send text message at admission to parents
- Post-natal telephonic reminders
- Twice weekly group counselling and stress management

**WEB FIG. 1** Driver diagram.
Web Fig. 2 Fish bone diagram showing root cause analysis of less EBM usage (ANC/PNC-Antenatal/postnatal counseling, KMC-Kangaroo mother care, NNS-Non-nutritive sucking).

Web Fig. 3 PDSA Ramp - 1.

Changes implemented-two phases 16th June and Aug 25th

Cycle 1: Dr A counseled 2 patients antenatally without standardized format for EBM availability-EBM not available.

Cycle 2: Dr A developed standardized counseling format and then counselled three patients antenatally-EBM available in two cases

Cycle 3: Dr A and L to counsel antenatally as per developed format and send telephonic reminders in 4 patients-EBM available in all cases

Cycle 4: Antenatal counselling as per developed format + brochure + Videos + telephonic calls tested-EBM in all cases

Cycle 5: Antenatal counselling as per developed format + brochure + videos + telephonic calls tested-EBM available in all cases
WEB FIG. 4 (a, b, c). Process measures of kangaroo mother care, non-nutritive sucking and counselling. Arrow indicates time point of standardization of protocols.
**WEB TABLE I** COMPONENTS OF CARE BUNDLE FOR IMPROVING EXPRESSED BREAST MILK USAGE IN VLBW INFANTS

<table>
<thead>
<tr>
<th>Element Description</th>
<th>Action required</th>
<th>Staff Involved</th>
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<tbody>
<tr>
<td>1. Promotion of early expression of breast milk</td>
<td>1. Antenatal counselling of mother about benefits of breast milk, how to express breast milk and how to send milk to NICU&lt;br&gt;2. Give mothers educational brochure in English and local language with pictorials&lt;br&gt;3. Show mothers videos about expression of breast milk&lt;br&gt;4. Counselling of attendants at admission to NICU and giving educational brochure if not given.&lt;br&gt;5. Send text message to mother and father at admission to express and send expressed breast milk.&lt;br&gt;6. Telephonic reminder to mothers/attendants within 2 hours of delivery to send expressed breast milk&lt;br&gt;7. Daily tracking of mothers who delivered in last 24 hours and Staff/Lactation counsellor visit within 24 hours of delivery&lt;br&gt;8. Staff review/lactation consultant review of expression of milk, pump use and volume.</td>
<td>1, 2, 3-Lactation counsellor and resident doctor/consultant-action to be taken before delivery/in missed cases within 4-6 hours of delivery.&lt;br&gt;4-Resident doctor/Consultant and NICU nurse in charge&lt;br&gt;5-Lactation counsellor/nurse in charge&lt;br&gt;6-Bed side nurse&lt;br&gt;7-Data operator/Bedside nurse/Lactation counsellor/resident/Consultant&lt;br&gt;8-Bedside nurse, Lactation counsellor/doctor in charge/consultant on round</td>
</tr>
<tr>
<td>2. Ongoing support for lactation and stress management</td>
<td>1. List Based Daily counselling of all attendants-No EBM/Partial EBM/Full EBM Daily support by kangaroo mother care and non-nutritive sucking if eligible&lt;br&gt;2. Maternal group counselling once every two weeks for stress and lactation management&lt;br&gt;3. Ensure availability of breast pump&lt;br&gt;4. Daily team huddle</td>
<td>1-Consultant on call&lt;br&gt;2-Bedside nurse/Lactation counsellor/resident in charge&lt;br&gt;3-Consultant and Lactation counsellor&lt;br&gt;4-NICU sister in charge/lactation counsellor/bedside nurse&lt;br&gt;5-Consultant/Lactation counsellor/Data operator</td>
</tr>
</tbody>
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**VLBW:** Very low birthweight; **EBM:** Expressed breast milk; **NICU:** Neonatal intensive care unit.