Feeding infants on SCBU: Supporting development and managing problems

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Feeding development

- **Feeding development:** term infant born anatomically and physiologically designed to feed

- **Reflexive:** rooting, sucking, swallowing

- **Protective reflexes** to facilitate airway closure and prevent aspiration

- Fetal practice and refinement of skills from around 10 weeks gestation
Feeding development for the preterm infant: lack of practice opportunities, adverse stimuli

Supportive early interventions: environment, skin to skin, positioning, mouth cares, non nutritive sucking
Components of sucking: Suction and compression

Main mechanism of removal of milk from the breast is vacuum / suction coupled with milk ejection reflex

Tongue moves up and down but does not have peristaltic stripping

Milk flows when the tongue is down

Geddes
Co-ordination of sucking swallowing and breathing

- Swallowing and respiration are co-ordinated
- Breathing stops during swallowing
- Sucking is a separate pattern
- 15-30 sucks per burst integrated with breathing and swallowing
- Rate of NS: 87 +/- 19 (NNS 98 +/- 27)
- Suck: swallow: breathe (not 1:1:1) 2:1:1 / 3:1:2
Development of suck swallow breathe co-ordination

- Immature (3-5 sucks per burst poorly co-ordinated with respiration)
- Transitional/ disorganised
- De-saturation, apnea
- Maturity: 32-37 weeks
Feeding support

- Supplemental oxygen
- Length of feeds <30 minutes, avoid fatigue
- Extensor motor patterns: help with positioning
- Pacing: managing powerful milk ejection/let down
- Milk flow: preterm teats (fast flow)

- Supportive side lying positioning for bottle feeds
Feeding support

- Tongue tip elevation
- Weak suction
- Absent fat pads
- Wide jaw excursions

Jaw/cheek support, dancer hold
Nipple shields

- Flat / inverted sore/cracked nipples
- Used to a firmer nipple
- Large nipple small mouth
- Attachment
- Weak suction
- Need for more sensory input
- Need to express after use
- Have a weaning plan
immaturity v specific feeding difficulties

High risk infants:

- GOR
- CLD
- NEC
- Cardiac
- Syndromes and other diagnosis’
- Neurological impairment
Immaturity v abnormality

- Abnormal tone and reflexes
- Absent gag
- Need for suction
- Poor co-ordination
- Risk of aspiration (coughing, congestion, colour and tone changes with feeding)
SLT assessment and individualised plan for feeding safety and support

- History
- Looking (bedside ax, videofluoroscopy)
- Listening (auscultation)

- Individualised plan:
  Position, techniques and strategies
Workshop:

Transitioning from tube to breast feeding

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infant feeding readiness cues

- stable cardio respiratory status
- Alert and awake at feed times
- Rooting and licking
- Strong rhythmic sucking

- Co-ordination of sucking, swallowing and breathing:
  32-37 weeks gestation
Maternal readiness

- Established milk supply (600-800ml in 24hrs)
- Availability (rooming in)
- Support (care of family/siblings)
Attachment and positioning key to effective breastfeeding
Establishing breast feeding:  
weaning off the tube

- Hunger / appetite
- Frequency of tube feeds? 2 / 3 / 4 hourly
- Modified demand feeding
- Reduce total volume of feed
- No bottles during early establishment of breastfeeding

- Top ups
Breastfeeding Assessment Score

**Assess lactation and attachment**

<table>
<thead>
<tr>
<th>Score</th>
<th>Definition</th>
<th>Action</th>
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<tbody>
<tr>
<td>A</td>
<td>Offered the breast, not interested sleepy</td>
<td>Full top up*</td>
</tr>
<tr>
<td>B</td>
<td>Interest in feeding, however does not latch</td>
<td>Full top up*</td>
</tr>
<tr>
<td>C</td>
<td>Latches onto the breast, however comes on and off or falls asleep</td>
<td>Full top up*</td>
</tr>
<tr>
<td>D</td>
<td>Latches, however sucking is uncoordinated or has frequent long pauses.</td>
<td>Half top up*&lt;br&gt;<strong>Consider not</strong> topping up if mother is available for another breastfeed. The baby may wake earlier</td>
</tr>
<tr>
<td>E</td>
<td>Latches well, long slow rhythmical sucking and swallowing—short feed &lt; 10 min</td>
<td>Half top up*&lt;br&gt;<strong>Do Not</strong> top up if mother is available for next feed</td>
</tr>
<tr>
<td>F</td>
<td>Latches well, long slow rhythmical sucking and swallowing—long feed &gt; 10 min</td>
<td>No top up</td>
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*If a top up required it is preferable to continue to allow baby nuzzle at the breast

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References

Chapters 9: Feeding Development
10: Transition from tube to breast and 11: Feeding problems

in Feeding and Nutrition in the Preterm Infant Jones and King (Eds) Elsevier Press