



Clinical Issues on the Baby Friendly Trail

Kathy Venter RN.IBCLC. 2011

- Identify common clinical issues on the BFI journey
- Consider Baby Friendly support for at risk newborns

Objectives



Common Clinical Issues

All may be complicated by:

Pressures to discharge early
&
Lack of follow up support

Common Clinical Issues

1. skin to skin for the first 48 hours to facilitate transition and encourage frequent feeds;
2. frequent hand expression of breastmilk

< hypoglycaemia

< weight loss

< jaundice

< infection

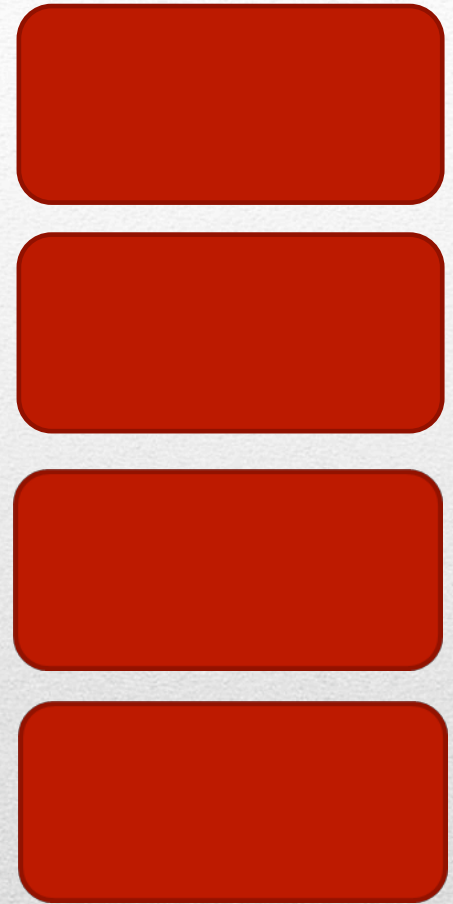


+ Abundant milk supply



Early + often + effective = exclusive

- Skin to skin
- Feed the baby
- Move the milk
- Time



Birth injuries

- Induction & augmentation –pitocin
 - Sucking induced oxytocin inhibited
 - Anti-diuretic
- Excessive IV fluids (esp + pitocin)
 - Edematous areola
 - Inflated infant weight loss

Labor & Delivery Interventions

- Analgesics
 - Slower establishing of bf
 - Infant behaviors disturbed
 - Epidurals risk to M & B
- Narcotics
 - Sedate baby
 - Sucking induced oxytocin inhibited in M

Labor & Delivery Interventions

- Ergot (bleeding) – inhibits prolactin

- Instrument assisted delivery

- Trauma to facial nerve
- Hemorrhage/ hematoma



latch/seal
'hangover'

- Routine suctioning

- Airway
- Stomach



Gag, excessive
mucous, tongue up,
oral aversion

Labor & Delivery Interventions

BREASTFEEDING UNDER DIFFICULT CIRCUMSTANCES

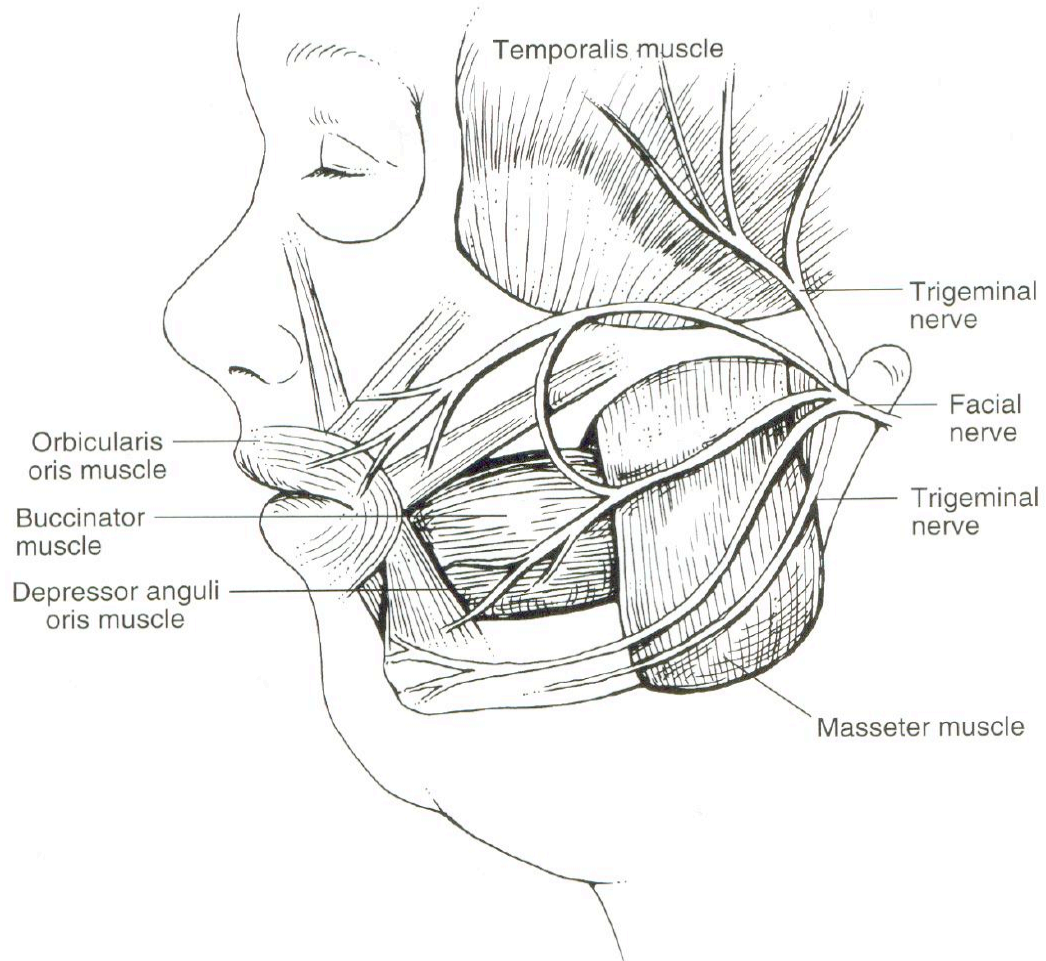




Fig. 7-4, cont'd B, Lateral view.

- Skin to skin
- Feed the baby
- Move the milk
- Time

Hypoglycaemia



Breastfed, formula-fed, and mixed-fed infants follow the same pattern of glucose values with an initial fall in glucose over the first 2 hours, followed by a gradual rise in glucose over the next 96 hours, whether fed or not.



Breastfed infants tend to have slightly lower glucose and higher ketone bodies than artificially fed infants

TABLE 1. RECOMMENDED LOW THRESHOLDS:
PLASMA GLUCOSE LEVEL

<i>Hour after birth</i>	<i>≤5th Percentile PGL (mg/dL)</i>
1–2 (nadir)	28 (1.6 mmol/L)
3–47	40 (2.2 mmol/L)
48–72	48 (2.7 mmol/L)

ABM Protocol

TABLE 4. GENERAL MANAGEMENT RECOMMENDATIONS

Early and exclusive breastfeeding meets the nutritional and metabolic needs of healthy, term newborn infants.

1. Routine supplementation is unnecessary.
2. Initiate breastfeeding within 30 to 60 minutes of life and continue on demand.
3. Facilitate skin-to-skin contact of mother and infant.
4. Feedings should be frequent; 10 to 12 times per 24 hours in the first few days after birth.

Glucose screening is performed only on at-risk or symptomatic infants.

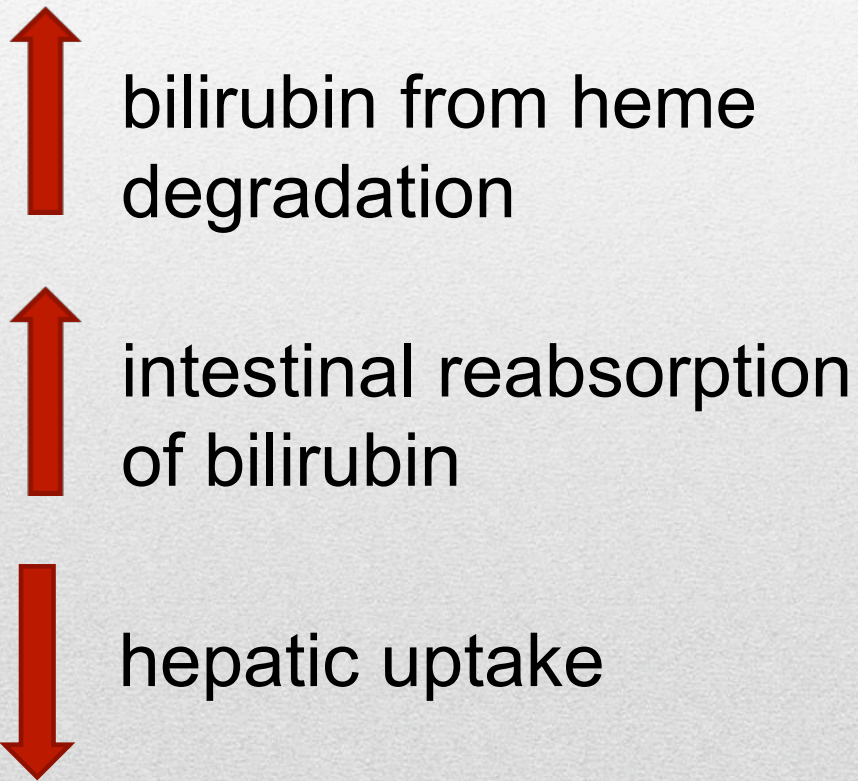
1. Routine monitoring of blood glucose in all term newborns is unnecessary and may be harmful.
 2. An at-risk infant should be screened for hypoglycemia with a frequency and duration related to the specific risk factors of the individual infant.
 3. Monitoring continues until normal, preprandial levels are consistently obtained.
 4. Bedside glucose screening tests must be confirmed by formal laboratory testing.
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ABM Protocols

- Skin to skin
- Feed the baby
- Move the milk
- Time



Neonatal Jaundice & Hyperbilirubinemia



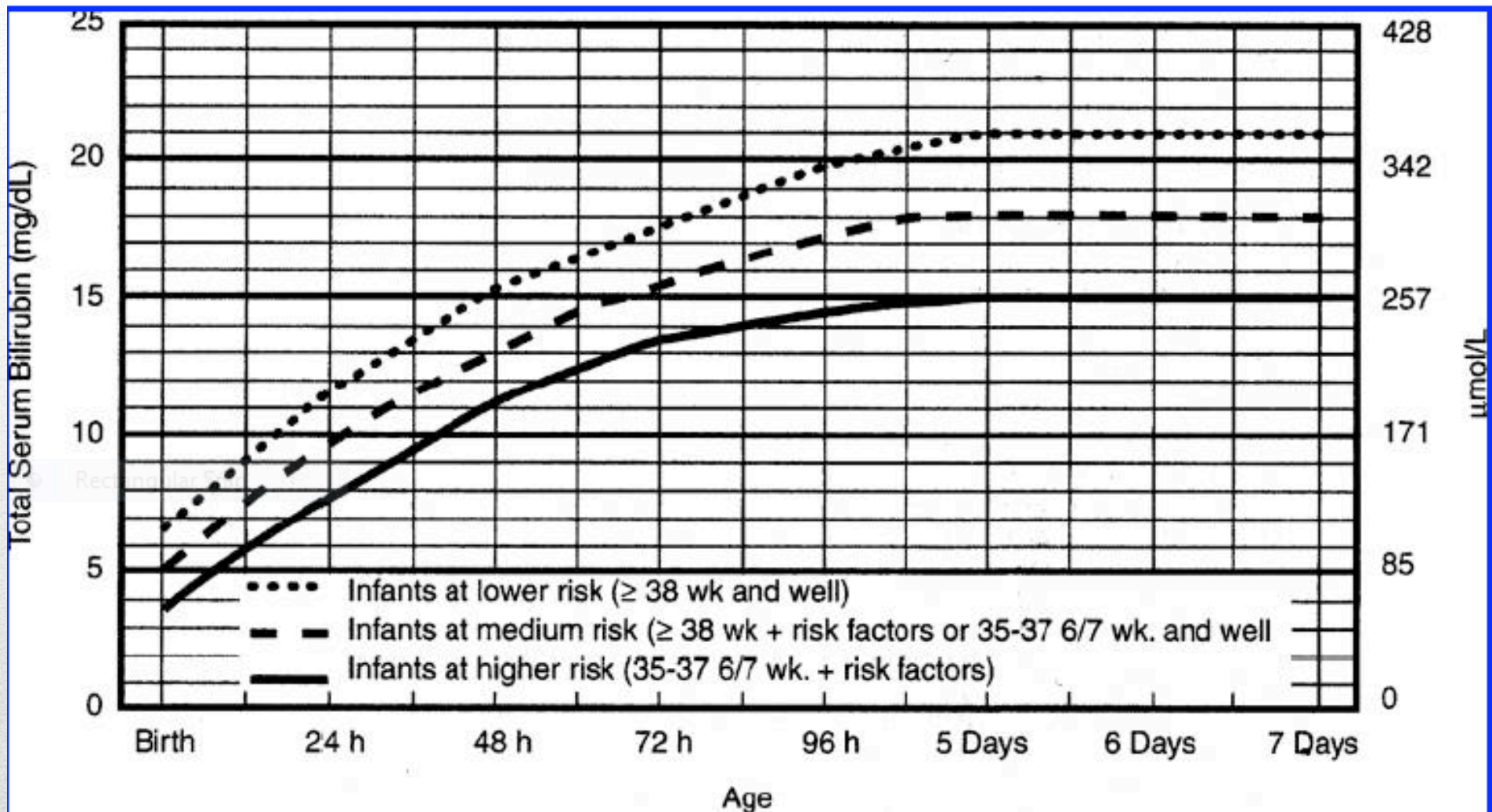
= ↑ unconjugated bilirubin

The text features a black equals sign followed by a red arrow pointing upwards, and then the words 'unconjugated bilirubin' in black text.

Jaundice in the Breastfed Infant

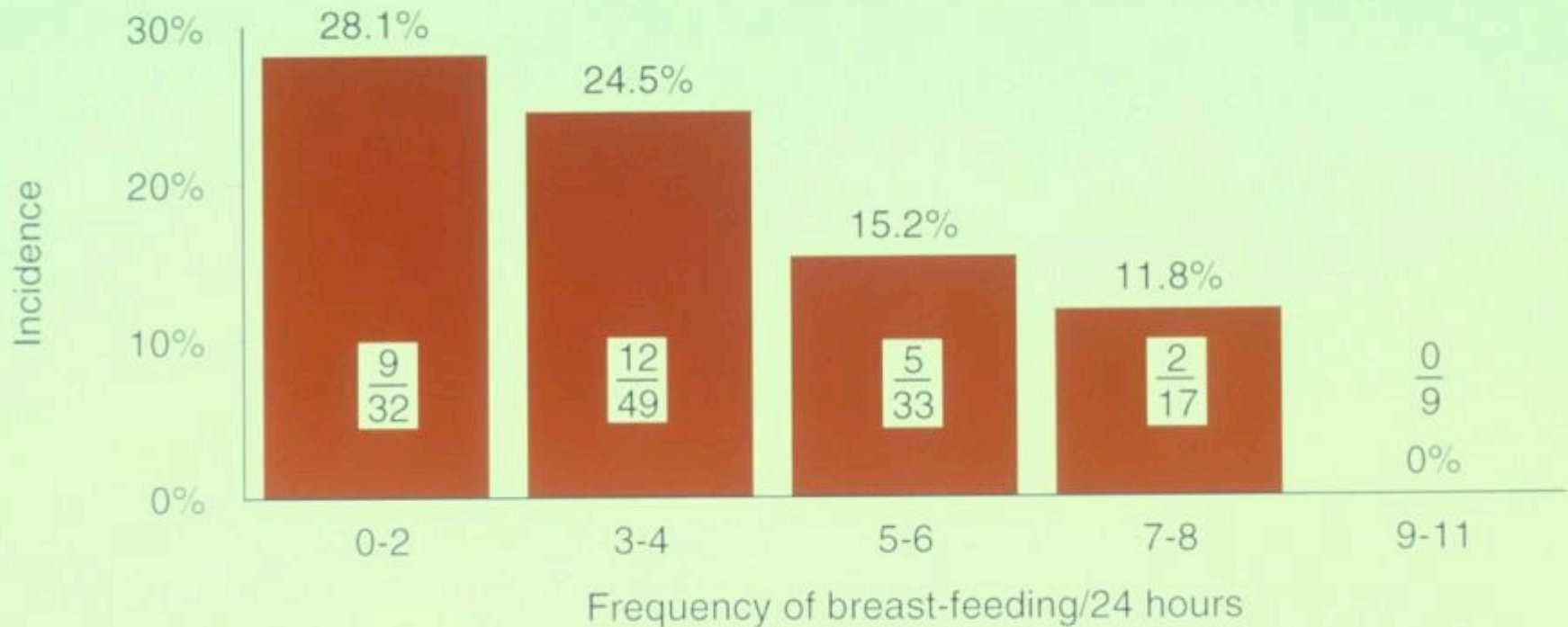
	PHYSIOLOGIC NORMAL	NOT ENOUGH BF	B/MILK JAUNDICE	PATHOLOGIC
BILI	6.5 – 7 mg/dl BY DOL 3	➤7.0mg/dl BY DOL 3	>20mg/dl After 2 weeks DOL	VISIBLE WITHIN 24hrs >12.5 mg/dl
ONSET	2-5 DOL	3-6 DOL	3-4 DOL	WITHIN 36 hrs
ETIOLOGY	DESTRUCTION OF RBCs	↓ SUCKING PERISTALSIS CALORIES	? NORMAL FREE RADICALS	↑ BILIRUBIN HAEMOLYSIS ABO INC. PREM. BIRTH INJ.
Rx	FREQUENT BF TO INCREASE PERISTALSIS	INCREASE BF SUPP @ BRST PHOTOR _x	?? DISC. BF FOR 24 HOURS	BREASTFEED BLOOD TRANS. PHOTOR _x MEDS

Academy of Breastfeeding Medicine Protocol #8



- Use total bilirubin. Do not subtract direct reacting or conjugated bilirubin.
- Risk factors = isoimmune hemolytic disease, G6PD deficiency, asphyxia, significant lethargy, temperature instability, sepsis, acidosis, or albumin $< 3.0\text{g/dL}$ (if measured)
- For well infants 35-37 6/7 wk can adjust TSB levels for intervention around the medium risk line. It is an option to intervene at lower TSB levels for infants closer to 35 wks and at higher TSB levels for those closer to 37 6/7 wk.
- It is an option to provide conventional phototherapy in hospital or at home at TSB levels 2-3 mg/dL (35-50mmol/L) below those shown but home phototherapy should not be used in any infant with risk factors.

Breast-feeding frequency during the first 24 hours after birth and incidence of hyperbilirubinaemia on day 6




From: Yamauchi Y and Yamanouchi I (1990) Breast-feeding frequency during the first 24 hours after birth in full-term neonates *Pediatrics* 86(2):174.

**McDonagh AF. *Clinics in Perinatology*,
1990;17:359-69**

**“bilirubin may be an important
component of the body’s natural
defences against injury by organic
free radicals”**

- Skin to Skin
- Feed the Baby
- Move the Milk
- Timely follow ups

Excessive Weight loss



Some of a newborn's initial weight loss may be due to the infant regulating its hydration and not related to a lack of breast milk.

Expect some weight loss

Expect return to birth weight 10-14 days

Expect 10-15g a day after that

“recommend using weight measured at 24 hours post birth as a baseline.”



Noel-Weiss et al 2010

- Skin to skin
- Feed the baby
- Move the milk
- Time




Late Preterm Infants

- have more difficulty with temp. maintenance / respiratory stability
- be sleepier, immature state regulation,
- have less stamina, low tone
- have more difficulty with latch/suck/swallow coordination
- more likely to become hypoglycaemic
- be more vulnerable to infection
- be more jaundiced
- lose more weight
- become dehydrated

The late preterm infant has more difficulty

- Be vigorous for the first few days and then peter out..
- Be vigorous at the start of the feed and then go to sleep at breast
- Latch well and then suckle intermittently – does not transfer milk effectively
- Spend more energy than he/she banks

A Great Pretender!

- 
- Many of the same challenges may also be found in the 37-38 weeker
 - AND sometimes the post term infant too!

These babies are more likely to be separated from their mothers

- Observe & Assess closely for first 24 hours
- Skin to skin as much as possible
- Rooming in as soon as possible
- Work towards care by parent.
- Facilitate effective breastfeeding and establishment of milk supply

Nearterm Infant

- Begins with the opportunity for skin-to-skin contact
- Hand expressed colostrum right from the start as a top-up to every breastfeed and if baby not latching
- Watch baby for feeding cue behaviours.
- Ability to breastfeed depends on coordination of innate suck, swallow, and breathe

Readiness to Breastfeed

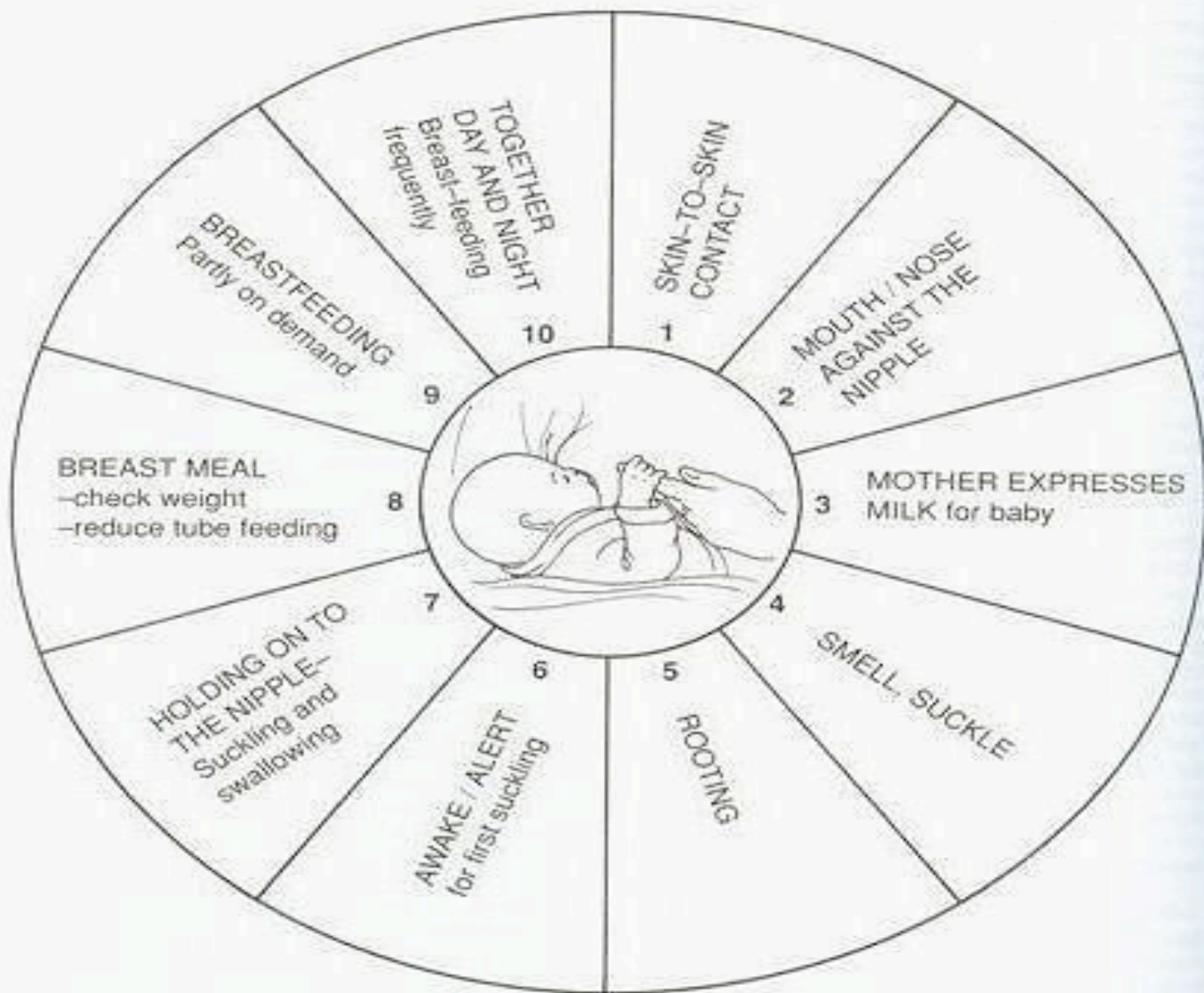


FIGURE 10-2 The starting process for breastfeeding of premature infants. (Courtesy of Berlith Persson, Helsingborg Hospital, Sweden.)

- **Right time:** REM sleep, quiet alert state (cues)
- **Right place:** Skin-to-skin, position + support
(stabilize the core and support the jaw)
- **Right frequency:** early and often - small frequent feeds – supplement with EBM if needed
- **Right effort:** Baby needs to root, latch and suckle in a strong organized way – non-nutritive sucking beneficial too.....

Beginning to Breastfeed

- Protect supply (hand expression)
- Best latch possible.
- Use *compression* when the baby doesn't actually drink.
- Switch sides as the flow slows.
- Use a lactation aid to supplement with ebm.
- In some cases nipple shields have been shown to increase effectiveness – needs expert assessment and follow up.

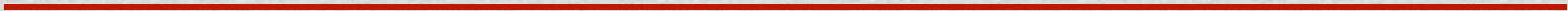
Enhancing milk transfer

1. Hand expression before and after feeds (a few compressions each time)
2. Pump to build supply if baby is not effective
3. Supplement until baby is more organized and effective – the essence of time!

Intake depends on milk supply & milk ejection

**It takes time for some
babies to effectively feed**

**look towards term >38
weeks**



- ✓ **Early start, close positioning & latching**
- ✓ **No forcing or rushing**
- ✓ **Skin to skin contact (a lot)**
- ✓ **Alternative feeding methods if necessary**
- ✓ **Discharge with good outside follow-up till past term date and baby is doing well on breast alone.**

37 weeker?

❖ Not according to the data

Marino BL, O'Brien P, LoRe H. Oxygen saturations during breast and bottle feeding in infants with congenital heart disease. *J Pediatr Nurs* 1995;10:360-4

Is breastfeeding more difficult?

- Optimal communication – written plan
- Assessment/reassessment
- Timely lactation support
- Avoid separation of mom and baby
- Prevent frequently encountered problems (hypoglycaemia, hypothermia etc..) S-S
- Educate staff and parents
- Discharge with a feeding plan and follow up

Optimal Care



- ❖ Early, reliable, frequent and knowledgeable follow-up enables earlier discharge.

Discharge planning

- Prenatal counseling
- Skin to skin helps Mom too
- Support Mom's goals to BF
- Protect milk supply
- Follow up support

High Risk Mothers

- Nearterm infants are often born to women with increased risks e.g. diabetes, multiples, hypertension, etc...
- These circumstances often contribute to difficulty establishing and maintaining lactation

Flags

- Meir, P. P., Furman, L. M., & Degenhardt, M. (2007). Increased lactation risk for late preterm infants and mothers: Evidence and management strategies to protect breastfeeding. *Journal of Midwifery & Women's Health*, 52, 579–587.
- Wang, M. L., Dorer, D. J., Fleming, M. P., & Catlin, E. A. (2004). Clinical outcomes of near-term infants. *Pediatrics*, 114, 372–376.
- Academy of Breastfeeding Medicine Protocol #10. Breastfeeding the Late Preterm Infant (340/7 to 366/7 Weeks Gestation) (First Revision June 2011)
- R.Lawrence 'Breastfeeding for the Medical Profession' 2010
- ABM Clinical Protocol #1: Guidelines for Glucose Monitoring and Treatment of Hypoglycemia in Breastfed Neonates
Revision June, 2006
- ABM Clinical Protocol #22: Guidelines for Management of Jaundice in the Breastfeeding Infant Equal to or Greater Than 35 Weeks' Gestation
- An observational study of associations among maternal fluids during parturition, neonatal output, and breastfed newborn weight loss . Joy Noel-Weiss, A Kirsten Woodend, Wendy E. Peterson, William Gibb and Dianne L Groll.
International Breastfeeding Journal (in press)
- Iatrogenic newborn weight loss: knowledge translation using a study protocol for your maternity setting. Joy Noel-Weiss, A Kirsten Woodend and Dianne L Groll
International Breastfeeding Journal (in press)

References
