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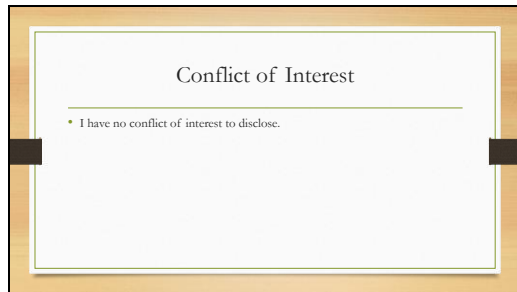
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Slide 2



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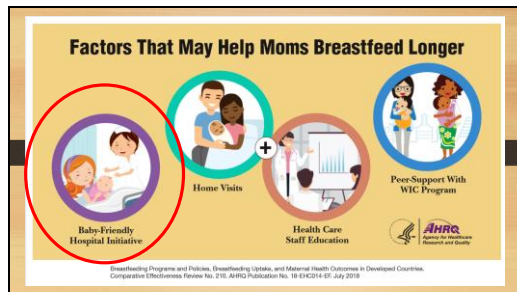
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Slide 3



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Slide 4

**The Original 10-Steps**

- 1) Have a written breastfeeding policy that is routinely communicated to all health care staff.
- 2) Train all health care staff in the skills necessary to implement this policy.
- 3) Inform all pregnant women about the benefits and management of breastfeeding.
- 4) Help mothers initiate breastfeeding within one hour of birth.
- 5) Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
- 6) Give infants no food or drink other than breast-milk, unless medically indicated.
- 7) Practice rooming-in - allow mothers and infants to remain together 24 hours a day.
- 8) Encourage breastfeeding on demand.
- 9) Give no pacifiers or artificial nipples to breastfeeding infants.
- 10) Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birth center.

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Slide 5

**Critical Management Procedures**

- 1a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.
- 1b. Have a written infant feeding policy that is routinely communicated to staff and parents.
- 1c. Establish ongoing monitoring and data-management systems.
2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

**Key Clinical Practices**

3. Discuss the importance and management of breastfeeding with pregnant women and their families.
4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.
5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.
6. Do not provide breastfed newborns any food or fluids other than breastmilk, unless medically indicated.
7. Enable mothers and their infants to remain together and to practice rooming-in 24 hours a day.
8. Support mothers to recognize and respond to their infants' cues for feeding.
9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.
10. Coordinate discharge so that parents and their infants have some timely access to ongoing support and care.

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Slide 6

**Explosion of Kansas BF Hospitals!** 

- Wesley Medical Center – Wichita – June, 2015
- St. Catherine Hospital – Garden City – December, 2017
- Shawnee Mission Med. Center – Shawnee Mission – January, 2018
- Univ of Kansas Hospital, Kansas City – May, 2018
- Univ of Kansas St. Francis Campus- Topeka – June, 2018
- Via Christi Hospital- Wichita – July, 2018



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Slide 7

Percentage of Births in BF Hospitals?

- Kansas: 41.1%
- USA: 26.1%
- Nebraska: 12.8%

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Slide 8

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Slide 9

Step #4 - Skin to skin immediately



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Slide 11

**Benefits of Early Skin-to-Skin Contact**

- Cardioresp stabilization newborn
- Decreased pp hemorrhage
- Decreased Infant crying
- Improved blood glucose (10 mg/dL)
- Decreased pain in newborn
- Less maternal stress /more satisfaction
- Decreased mat. depression @1mo
- More organized breastfeeding
- Increased bf exclusivity and duration
- Improved autonomic, GI, and neurobehavioral adaptation and growth in premature infants



AAP Pediatrics 138(3) Sept 2016 Continuum Obstetrics, Gyn, Fam. 2012 May 16

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Slide 12

**STS -> Self-Led Latch**



- STS stimulates infant feeding reflexes
- Facilitates "1st feed in 1st hour"
- Organizes route
  - Search > feel > root
  - Baby finds the nipple/areola and latches

(See Global Health Media – BF in the first hours video)

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Slide 13

**SUPPC – Sudden Unexpected Postnatal Collapse**

- Occurs in 38/100,000 live births (Pejovic & Herlenius, 2013)
  - 1/3 in first TWO hours
  - 1/3 in first TWO Days
  - 1/3 in 2-7 days
- ~ 90% could be prevented by educating moms, families and staff



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Slide 14

**COMPONENTS OF SAFE POSITIONING FOR THE NEWBORN WHILE SKIN-TO-SKIN**

- Infant's face can be seen
- Infant's head is in "sniffing" position
- Infant's nose and mouth are not covered
- Infant's head is turned to one side
- Infant's neck is straight, not bent (forward)
- Infant's shoulders and chest face mother
- Infant's legs are flexed
- Infant's back is covered with blankets
- Mother-infant dyad is monitored continuously by staff in the delivery environ and regularly on the postpartum unit
- When mother wants to sleep, infant is placed in bassinet or with another support person who is awake and alert



AAP Pediatrics 138(3) Sept 2016

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Slide 15

Safer STS tools?

Tool	Year	Author	Focus	Available	Validated
Safe Positioning for Skin-to-Skin Contact	2012	United States Institute for Kangaroo Care	Safe positioning	Yes	Yes
Infant Assessment and Reduction of Sudden Unexpected Postnatal Collapse Risk During Skin-to-Skin Contact	2014	Ludington-Hoe, SM et al. NAINR	SUPPC risk reduction	Yes	Yes
...	...	...	...	...	...

**Safe Positioning for Skin-to-Skin Contact**



**Check list**

- Face can be seen
- Head is in "sniffing" position
- Head and mouth are not covered
- Head is turned to one side
- Neck is straight, not bent
- Shoulders are flat against Mom
- Chest-to-chest with Mom
- Legs are flexed
- A little blanket, one flat, on back/feet
- Cover the back with blankets
- Hands are stretched when sleeping or baby is being monitored

If no one can watch you and your baby of her feedings and when sleep is likely, put your baby on his or her back on the baby's own firm bed.

United States Institute for Kangaroo Care Safe Positioning Poster © United States Institute for Kangaroo Care, 2012

Infant Assessment and Reduction of Sudden Unexpected Postnatal Collapse Risk During Skin-to-Skin Contact Ludington-Hoe, SM et al. NAINR, 2014;14(1):28-34. [Newborn & Infant Nursing Reviews](#)

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Slide 19

**Kansas vs National Numbers**

CDC Report Card: BF infants receiving formula by day 2:

- US: 17.2%
- Kansas: 13.5%
- Missouri: 14.0%
- Colorado: 10.6%
- Nebraska: 17.5%
- Minnesota: 7.2%
- New York: 26.5%

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Slide 20

Cochrane Database Syst Rev. 2014 Nov 25;(11):CD006462.  
**Early additional food and fluids for healthy breastfed full-term infants.**  
Becker GJ<sup>1</sup>, Remington T.

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- **OBJECTIVES:** To assess the benefits and harms of supplementation for full-term healthy breastfed infants and to examine the timing and type of supplementation.
- **AUTHORS' CONCLUSIONS:**
  - "We were unable to fully assess the benefits or harms of supplementation or to determine the impact from timing and type of supplementation."

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Slide 21

JAMA Pediatr. 2018 Jun 4:e181161.  
**Association of Exposure to Formula in the Hospital and Subsequent Infant Feeding Practices With Gut Microbiota and Risk of Overweight in the First Year of Life.** Jurbes ID et al.

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- **CONCLUSIONS AND RELEVANCE:**
  - "Breastfeeding **may** be protective against overweight, and gut microbiota **may** contribute to this effect. Formula feeding appears to stimulate changes in microbiota that are associated with overweight, whereas other complementary foods do not. Subtle microbiota differences emerge after brief exposure to formula in the hospital. These results identify important **areas for future research** and distinguish early infancy as a critical period when transient gut dysbiosis may lead to increased risk of overweight."

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Slide 23

Indications for Supplementation (from ABM protocol)

- Asymptomatic hypoglycemia not responsive to bfeeding
  - Could use expressed milk, donor milk, or glucose gel before formula
- Symptoms/signs of inadequate milk intake
  - Excessive weight loss, dehydration, meconium on day 5, severe jaundice
- Maternal low milk supply
- Mother unable to breastfeed/baby not latching



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Slide 24

Weight loss in a Healthy Term Newborn


- “Other signs of inadequate intake”:
  - Day 5, >8-10% wt loss, or >75<sup>th</sup> >75<sup>th</sup> %tile for age\* at any time

\*[www.newbornweight.org](http://www.newbornweight.org)

*“Although weight loss in the range of 8–10% may be within normal limits if all else is going well and the physical examination is normal, it is an indication for careful assessment and possible breastfeeding assistance. Weight loss in excess of this may be an indication of inadequate milk transfer or low milk production, but a thorough evaluation is required before automatically ordering supplementation.”*

*“...excess newborn weight loss is correlated with positive maternal intrapartum fluid balance (received through intravenous fluids) and may not be directly indicative of breastfeeding success or failure.”*

Academy of Breastfeeding Med Protocol #5 [www.bfmed.org](http://www.bfmed.org)



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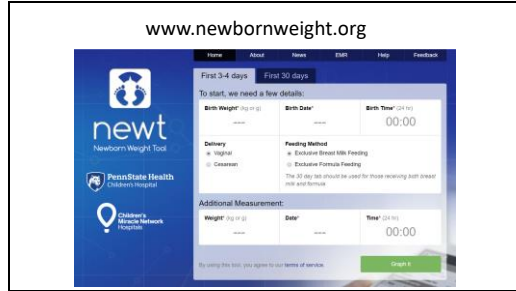
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Slide 25



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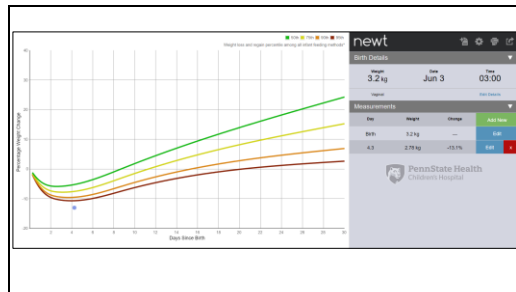
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Slide 26



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Slide 27



### Hypoglycemia

AAP, WHO, NIH

- For **Healthy Term** Infants with **no risk**:
  - Routine BG checks are not necessary
  - Routine BG checks have negative consequences for breastfeeding
- Healthy term infants with no risk factors do not develop clinically significant hypoglycemia due to limited duration or frequency of nursing

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Slide 28

Infants < 36 mg/dl **without** Clinical Symptoms

- **Continue breastfeeding** (~ every 1–2 hours) **OR** feed 1–5 mL/kg of expressed breastmilk or substitute nutrition.
- Recheck blood glucose concentration before subsequent feedings until the value is acceptable and stable.
- If the glucose level remains low despite feedings, begin intravenous glucose therapy.
- Breastfeeding may continue during intravenous glucose therapy.
- **NO** evidence that treatment of asymptomatic hypoglycemic infants is beneficial for neurocognitive outcome.

ABM protocol 2014 [bitmed.org](http://bitmed.org), [Matern J Health Neonatal Perinatol](http://MaternJHealthNeonatalPerinatol), 2016; 2: 3.

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Slide 29

Buccal Dextrose Gel 

- 40% gel applied to buccal mucosa (200mg/kg)
- For asymptomatic infants with low blood sugar
- Less maternal-infant separation for treatment of hypoglycemia
- Higher exclusive breastfeeding rates at discharge
- No noted adverse outcomes at 2 years corrected age (184 infants)

Cochrane Database 2016 May 4;(5) 312 infants 29

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Slide 30

 **What if no Latch in the first hour?** 

- Express colostrum and feed to baby
  - Keep baby skin-skin as much as possible
- *“The delay in time between birth and initiation of the first breastfeed is a strong predictor of infant formula use and may affect future milk supply.”*

ABM Protocol #3: Supplementary Feedings in the Healthy Term Breastfed Neonate, Revised 2017 [www.bitmed.org](http://www.bitmed.org)

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Slide 31

Step #9 Pacifiers/bottles

- “Counsel mothers on the use and risks of feeding bottles, teats and pacifiers?”



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Slide 33

Pacifier use versus no pacifier use in breastfeeding term infants for increasing duration of breastfeeding.  
Cochrane Database Syst Rev. 2011 Mar 16(3):CD007202.  
Jaafar SH1, Jahanfar S, Angolkar M, Ho JJ.

**MAIN RESULTS:**

- \* We found three trials (involving 1915 babies) for inclusion in the review but have included only two trials (involving 1302 healthy full-term breastfeeding infants) in the analysis. Meta-analysis of the two combined studies showed that pacifier use in healthy breastfeeding infants had no significant effect on the proportion of infants exclusively breastfed at three months (risk ratio (RR) 1.04; 95% confidence interval (CI) 0.53 to 1.96), and at four months of age (RR 0.99; 95% CI 0.52 to 1.90) and also had no effect on the proportion of infants partially breastfed at three months (RR 1.00; 95% CI 0.97 to 1.02), and at 4 months of age (RR 1.01; 95% CI 0.98 to 1.03).

**AUTHORS' CONCLUSIONS:**

- \* Pacifier use in healthy term breastfeeding infants, started from birth or after lactation is established, did not significantly affect the prevalence or duration of exclusive and partial breastfeeding up to four months of age. However, evidence to assess the short-term breastfeeding difficulties faced by mothers and long-term effect of pacifiers on infants' health is lacking.

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