Supporting and Promoting Breastfeeding in Health Care Settings: Module 2: Hospital Care, Part 1

12/13/13

Four-Part Webinar Series

- Recommendations on how to examine, counsel, and teach breastfeeding to pregnant women and new mothers
- Targeted to clinicians and other health care providers
- Providers are encouraged to complete all four modules
  - Module 1 is targeted to prenatal providers
  - Modules 2 & 3 is targeted to hospital care providers
  - Module 4 is targeted to post-partum care providers
- Modules support *Ten Steps to Successful Breastfeeding*
Featured Speaker

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Disclosure Statements

The planners and presenters do not have any financial arrangements or affiliations with any commercial entities whose products, research or services may be discussed in this activity.

No commercial funding has been accepted for this activity.
Evaluations

Nursing Contact Hours, CME and CHES credits are available.

L-CERPS are available until December 2014

Please visit www.nyspreventschronicdisease.com to fill out your evaluation and complete the post-test.

Thank you!

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• University at Albany School of Public Health

• NYS Department of Health
Overall Goals

• Provide guidance on examining, counseling, and teaching breastfeeding to women during pregnancy
• Improve rates of successful breastfeeding

Objectives – Module #2

• List current breastfeeding recommendations
• Describe breastfeeding impact on infant and maternal health
• Discuss national trends in breastfeeding rates
• Describe how the “10 Steps to Successful Breastfeeding” impacts practice and quality improvement in hospitals
What are the current recommendations?

American Academy of Pediatrics

- Breastfeed for one year or longer
- Exclusive breastfeeding for 6 months
- Add solid food at about 6 months

AAP, 2012
American Congress of Obstetricians and Gynecologists

- Supports AAP recommendation of breastfeeding for 1 year or longer, exclusive for 6 months
- May breastfeed during and after subsequent pregnancy
- No rules on weaning

ACOG, 2007

American Academy of Family Physicians

- Supports AAP recommendation of breastfeeding for 1 year or longer, exclusive for 6 months
- Breastfeeding is the physiological norm
- Family physicians should have the knowledge to promote, protect and support breastfeeding
Does breastfeeding matter in medically advanced countries?

Breastfeeding Health Outcomes in Developed Countries

- U.S. Agency for Healthcare Research Quality (AHRQ), DHHS, April 2007
- Evidence Report/Technology Assessment:
  - Based on rigorous analysis of scientific literature
  - Used to develop quality measures, guidelines, educational materials, research agendas
### AHRQ Report: Positive Infant Outcomes

<table>
<thead>
<tr>
<th>Condition</th>
<th>% less if breastfed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otitis media</td>
<td>50%</td>
</tr>
<tr>
<td>Gastroenteritis</td>
<td>64%</td>
</tr>
<tr>
<td>Necrotizing enterocolitis</td>
<td>82%</td>
</tr>
<tr>
<td>Lower respiratory tract infections</td>
<td>72%</td>
</tr>
<tr>
<td>Atopic dermatitis/eczema</td>
<td>42%</td>
</tr>
<tr>
<td>Asthma – no family hx, family hx</td>
<td>27%, 40%</td>
</tr>
<tr>
<td>Obesity</td>
<td>24%</td>
</tr>
<tr>
<td>Type 1 diabetes</td>
<td>27%</td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td>39%</td>
</tr>
<tr>
<td>Childhood Leukemia – ALL, AML</td>
<td>19%, 15%</td>
</tr>
<tr>
<td>Sudden Infant Death Syndrome</td>
<td>36%</td>
</tr>
</tbody>
</table>

### AHRQ Report: Positive Maternal Outcomes

<table>
<thead>
<tr>
<th>Condition</th>
<th>% less if breastfed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Cancer-per year of lactation</td>
<td>28%</td>
</tr>
<tr>
<td>Ovarian Cancer</td>
<td>21%</td>
</tr>
<tr>
<td>Type 2 Diabetes-per year of lactation</td>
<td>12%</td>
</tr>
<tr>
<td>Postpartum Depression</td>
<td>association</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>equivocal</td>
</tr>
<tr>
<td>Postpartum weight loss</td>
<td>equivocal</td>
</tr>
</tbody>
</table>
Cognitive Development

- **AHRQ (evidence through 2006):** equivocal
- **12,000 infants UK Millennium Cohort Study (2012):** Improved cognitive development in breastfeeding (BF) term and preterm at 5 years
- **7,000 infants Britain and 600 Brazil (2011):** BF associated with increased IQ at age 4
- **1,312 infants Boston (2013):** 0.8 increase verbal IQ at age 7 per month exclusively BF; 0.35 per month any BF
- **Promotion of BF Intervention Trial (PROBIT), 2008:**
  - Followed 13,889 infants at 6.5 years
  - BF + 5.9 full-scale IQ, significantly higher teacher

Brain Development

- Brain MRI of BF vs. formula fed children:
  - Increased development in white matter regions of the brain associated with planning, social and emotional functioning, language
  - Better performance on motor and visual acuity tests
Brain Development

Statistical image showing regions of significant VF M^ difference between children breastfed for prolonged durations (greater than 15 months) and children breastfed for less than 12 months

Deoni, S., et al. (2013). Breastfeeding and early white matter development: A cross-sectional study. *NeuroImage*, 82, 77-86. [http://dx.doi.org/10.1016/j.neuroimage.2013.05.090](http://dx.doi.org/10.1016/j.neuroimage.2013.05.090)

Additional Child Health Benefits

- Decreased rates of:
  - Celiac disease
  - Inflammatory bowel disease
  - Hypertension
  - Hypercholesterolemia

Additional Maternal Health Benefits

- Decreased postpartum bleeding
- More rapid uterine involution
- Decreased menstrual blood loss
- Increased child spacing


Maternal Cardiovascular Disease

- Women’s Health Initiative: Postmenopausal women who breastfed were less likely to develop
  - Hypertension
  - Diabetes
  - Hyperlipidemia
  - Cardiovascular disease

- Longer duration of lactation associated with lower risk after adjusting for sociodemographic and lifestyle variables, family history and BMI

Economic Benefits

• Suboptimal breastfeeding associated with:
  – annual pediatric costs of $14.2 billion
  – $18.3 billion in preventable maternal health costs annually


“The debate is over about the importance of breastfeeding for health outcomes for women and children in the United States. There is no debate. The real questions are: How do we support women and families in breastfeeding and exclusive breastfeeding? How are we currently supporting it, and how are we currently sabotaging it?”

• David Meyers, MD, FAAFP, Agency for Healthcare Research & Quality
• First Annual Summit on Breastfeeding, June 11, 2009
How are we doing? Update on Trends

Breastfeeding in the U.S.

- HHS 2020 goal for any BF:
  - 82% initiation
  - 60% at 6 months
  - 34% at 1 year

CDC, 2013
Breastfeeding in the U.S.

- HHS 2020 goal for exclusive BF:
  - 46% at 3 months
  - 25% at 6 months

CDC, 2013

Supplementation with Formula

Percent of U.S. breastfed children who are supplemented with infant formula, by birth year

NYS: 38% supplemented by day 2; 56% by 3 months
NYC: 44% supplemented by day 2; 62% by 3 months
Why is the “quality gap” between exclusive and any breastfeeding so large?

Benefits of Exclusive Breastfeeding

- Artificial milk interferes with immune system priming and gut colonization
- Decreased feeding at breast may lead to lower milk production
- No “nipple confusion” – artificial nipples and pacifiers may interfere with infant’s ability to suckle effectively and may cause pain in mother
The International Code of Marketing of Breastmilk Substitutes

- An international health policy framework adopted by the World Health Organization (WHO) in 1981
- Recommends restrictions on the marketing of breastmilk substitutes, such as infant formula, to ensure that mothers are not discouraged from breastfeeding and that substitutes are used safely if needed
- The Code also covers ethical considerations and regulations for the marketing of feeding bottles and artificial nipples

What can be done to improve the “quality gap” between exclusive and any breastfeeding?
Paradigm Shift

- Norm for most mothers and infants rather than “best” or “special” → change in hospital routines
- Important health decision rather than a lifestyle choice → families need accurate information
- Important public health priority → requires action in many areas

U.S. Surgeon General’s Call to Action 2011

- 20 action steps to improve breastfeeding in U.S.
  - Families
  - Communities
  - Media
  - Health Care
  - Employment
  - Research and Surveillance
  - Public Health Infrastructure
Evidence-based Practice

• How can breastfeeding rates, duration and exclusivity be increased to meet goals?

• What can health care providers do?

• What is the evidence?

The Ten Steps to Successful Breastfeeding

• Developed by WHO and UNICEF in 1991 to protect, promote and support breastfeeding in maternity hospitals

• Evidence based practice management and quality improvement

• Baby-Friendly Hospital Initiative – certification process

• Four in NYS; 150 in U.S.; 15,000 worldwide
### The Ten Steps to Successful Breastfeeding, 1-5

1. Have a written breastfeeding policy that is routinely communicated to all healthcare staff
2. Train all health care staff in 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 maintain lactation if separated from their infants

### The Ten Steps to Successful Breastfeeding, 6-10

6. Give infants no food or drink other than breast milk unless *medically* indicated
7. Practice rooming-in 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 after hospital discharge
How can healthcare providers support successful breastfeeding in hospitals?

Practice the Ten Steps

1. Have a written breastfeeding policy that is routinely communicated to all healthcare staff

- Breastfeeding is considered the standard feeding method unless mothers choose not to breastfeed
- Know where to find breastfeeding policy
  - Review
  - Refer to as needed
2. Train all health care staff in skills necessary to implement this policy

- Physicians, Midwives, Physician Assistants and Advanced Practice Registered Nurses (APRNs) with privileges for labor, delivery, maternity, and nursery/newborn care should have a minimum of 3 hours of breastfeeding management education pertinent to their role

- MCH nursing staff should have at least 20 hours of education and competency training

3. Inform all pregnant women about breastfeeding

- Most women decide about breastfeeding prior to pregnancy or 1st trimester
  - Ask “What have you heard about breastfeeding?”
  - Dispel myths
- Encourage or reinforce decision to breastfeed at each visit -- recommend exclusive breastfeeding
- Provide objective information, encourage prenatal education and breastfeeding classes
- Describe and reinforce normal physiology, especially the normal gradual increase in milk supply after birth
American Congress of Obstetricians and Gynecologists

- Ob-gyns should counsel patients and partners on breastfeeding, starting during the first trimester
- Use evidence-based hospital practices and community programs
- Inform about ACA coverage of breastfeeding education and supplies, including breast pumps
- Residency training should include importance of breastfeeding, patient education and support

ACOG, 2013

4. Help mothers initiate breastfeeding within 1 hour of birth
7. Encourage rooming-in 24 hours a day

- Throughout human history, neonatal survival depended on close continuous maternal contact
- Routine mother-infant separation after birth is unique to 20th century
- Early separation is stressful for mothers and infants → might result in persistent harmful effects
- Probable skin-to-skin contact (SSC) dose-response relationship
  - Infants 8x more likely to BF if SSC > 50 min. (Gomez, 1998)
  - Exclusive BF 2x more likely if SSC > 60 min. (Bramson, 2010)
Evolutionary Biology and Neuroscience of Breastfeeding

- All mammals have a set sequence at birth
- Newborn mammals follow inborn instincts in response to physical cues to engage in feeding behaviors necessary for survival
- Newborn elicits caregiving behavior in mother
- Mother provides warmth, protection, nutrition
- Newborn *initiates* feeding
- Newborn *maintains* feeding
Labor and Delivery Support

- Balanced pain management, avoid excessive narcotics
- **Immediate physical contact, skin-to-skin**
- Encourage after cesarean delivery
- Initial feeding in first hour
- Delay routine newborn procedures until after first breastfeeding
Immediate Skin-to-Skin Contact

Breastfeeding at 28 Weeks

Photo courtesy of: Nancy E. Wight MD, IBCLC, FABM, FAAP
Skin to Skin Contact – Infant Effects

- Infants self-attach and nurse more effectively
- Increased milk production and infant weight gain
- Improved cardio-respiratory stability and oxygen saturation in late preterms
- Higher blood glucose at 75-90 minutes
- Better thermoregulation
- Less crying in skin-to-skin care

Cochrane review, 2012

Skin to Skin Contact – Maternal Effects

- Skin-to-skin (SSC) contact → vagal stimulant → releases oxytocin →
  - Decreases maternal cortisol → lower stress
  - Increases social responsiveness, parenting behavior
  - Increases sense of mastery and confidence
- Breast skin temperature rises
- Less engorgement day 3
- Less post-op pain in mothers following Cesarean birth
- Strong preference for SSC in future births
- Probable dose-response relationship
Outcomes: Breastfeeding Rates/Duration

- Successful breastfeeding more likely with SSC than swaddling
- Higher BF effectiveness scores with SSC
- Increased BF duration by average 64 days
- More SSC dyads BF exclusively 3 to 6 months

Cochrane review, 2012

20th Century
Evaluations

Nursing Contact Hours, CME and CHES credits are available.

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