Supporting and Promoting Breastfeeding in Health Care Settings
Module 1: Prenatal Care

12/18/13

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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Vice Chairperson, Department of Obstetrics & Gynecology
Jacobi Medical Center and North Central Bronx Hospital

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!

Thank You to Our Sponsors

- 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, delivery and postpartum
• Improve rates of successful breastfeeding

Objectives – Module 1

• Recall current recommendations for breastfeeding
• Discuss ways providers can promote breastfeeding
• Describe breastfeeding teaching by trimester
BREASTFEEDING RECOMMENDATIONS

Breastfeeding Metrics
Healthy People 2020 vs. NYS


<table>
<thead>
<tr>
<th></th>
<th>Any BF</th>
<th>EBF-2d</th>
<th>EBF-3m</th>
<th>EBF-6m</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP 2020</td>
<td>81.9</td>
<td>70</td>
<td>46.2</td>
<td>25.5</td>
</tr>
<tr>
<td>NYS Data</td>
<td>82.7</td>
<td>39.7</td>
<td>33</td>
<td>15.3</td>
</tr>
</tbody>
</table>
### American Congress of Obstetricians and Gynecologists

- Breastfeed for 1 year or longer, exclusive for 6 months
- May breastfeed while pregnant and after subsequent pregnancy
- No rules on weaning
- AAP, AAFP support these recommendations

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### PROMOTING BREASTFEEDING
What Providers Need to Know

• Importance of breastfeeding
• Stages of breast development that lead to milk production
• How to conduct physical and history as it relates to breastfeeding
• How to create a breastfeeding friendly practice

Importance of Breastfeeding

• Breast milk provides the ideal nutrition for infants
• Breast milk contains antibodies
• Breastfeeding reduces baby's risk of having asthma/allergies
• Babies who are breastfed exclusively for the first six months have fewer ear infections, respiratory illnesses, and diarrhea
**Importance of Breastfeeding (cont’d.)**

- Breastfeeding has been linked to higher IQ scores in some studies
- Physical closeness, skin-to-skin touching, and eye contact support maternal-infant bonding
- Breastfed infants are more likely to gain the right amount of weight as they grow rather than become overweight children

**Breast Development During Pregnancy**

- All women start making milk during first 10-12 weeks of pregnancy
- Changes in the breasts as pregnancy progresses:
  - Breasts become larger
  - Areola will become larger and darker
  - Nipples may start to leak colostrum during the pregnancy
  - Colostrum is thick and can be clear, yellow or brownish
Lactogenesis – Stage I

- Pregnancy accelerates organogenesis
- Intense growth of glandular tissue, which is made up of clusters of ductal alveolar systems
- Progesterone causes a rapid increase in number of alveoli
- Alveoli begin to synthesize milk fat and protein creating colostrum, which is secreted into the ductal system
Lactogenesis – Stage II

• Occurs during lactation
• Delivery of placenta causes rapid drop in progesterone causing the alveolar cells to secrete their product: first colostrum, then milk
• Milk is released into the alveolar lumen and then into the ductules and ducts

Lactogenesis – Stage III

• Galactopoiesis is the process of milk supply maintenance
• Occurs in response to milk removal from the breast over the course of breastfeeding relationship
• Rarely, breast abnormalities may affect milk production
Hormones Involved in Milk Production

- Prolactin - responsible for milk production
- Oxytocin - responsible for milk release

Prolactin

- Progesterone thought to inhibit prolactin
- Sudden drop in progesterone after delivery of placenta triggers an initial release of prolactin
- Nipple suckling stimulates prolactin to be secreted by the anterior pituitary gland into the bloodstream
- Serum prolactin stimulates alveolar cells to make more milk
Oxytocin

• Stimulates the “let-down” reflex
• Released by the posterior pituitary in response to various stimuli:
  – Suckling of the infant
  – Massaging of the breast
  – Seeing, touching, smelling, hearing the infant
• Response to oxytocin is transient and intermittent

Importance of Patient History

• A good history identifies risk factors for problems with breast feeding and reasons for early intervention
• Refer women with certain medical/surgical issues to a lactation consultant
Risk Factors for Hypolactation

- Medical problems
  - Polycystic ovarian syndrome
  - Diabetes Mellitus, Type I and II
  - Hypo- and Hyperthyroidism
- Surgical problems
  - Breast augmentation
  - Breast reduction

Refer early to a lactation consultant!

Patient History - Medical

- Contraindications to Breastfeeding
  - HIV or HTLV
  - Active TB
  - Active varicella
  - Active HSV with breast lesions
  - Undergoing treatment for breast cancer including chemotherapy
Patient History - Medications

- Many medications are safe during breastfeeding
- Assess the benefit vs. risk of medication
- Choose medications safe for lactation
- Research the medication prior to dispensing
  - Breastfeeding Handbook for Physicians (AAP/ACOG resource)
  - National Library of Medicine database on drugs and lactation
  - Druginfo.nlm.nih.gov
  - Consult a pharmacist

Medications Contraindicated During Breastfeeding

- Decrease breast milk
  - Bromocriptine
  - Diuretics
- Toxicity
  - Chemotherapy
  - Antineoplastic, thyrotoxic, and immunosuppressive agents
  - Radioactive isotopes (used in nuclear medicine)
  - Some cardiovascular medications (Amiodorone, Acebutalol)

*Rule of thumb: Check ALL medications for safety during breastfeeding, just as you would during pregnancy*
Patient History - Surgical

- May cause breastfeeding issues
  - Breast surgery- augmentations or reductions
  - Inverted nipples (expression may be obtained by hand or electrical)
  - Breast biopsies involving the areola (compensate using contralateral breast)
  - Hypoplastic or tubular breasts (RARE- refer to specialist)

Patient History - Social

- Illegal or illicit drug use
- Alcoholism or binge drinking
Physical Exam

• Examine the breast
• Look for signs of surgery, especially in the areolar region
  – Reduction mammoplasty- depends on degree of interruption of the ductile system
    • Once delivered, should monitor infant growth
  – Augmentation mammoplasty- frequent emptying during the time of lactogenesis
• Nipple piercing – remove ring (choking hazard for baby)

FIRST TRIMESTER TEACHING

Key Messages for Mothers, Fathers and Partners
First Prenatal Visit

- Assess baseline knowledge about breastfeeding
- Discuss the stages of breast development that lead to milk production
- Dispel myths and promote breastfeeding benefits
- Encourage prenatal breastfeeding education

Set Expectation of Breastfeeding

- Ask patient about breastfeeding (family history, thoughts, concerns)
- Identify support and barriers
- Discuss insurance coverage for breastfeeding, including Medicaid
Exclusive Breastfeeding

- Exclusive breastfeeding means baby does not get anything to eat or drink other than breastmilk for 6 months
- Supplementary foods include: formula, water, glucose water, dextrose water, juice, baby foods
- Exceptions: vitamins, minerals, medications that have been prescribed for medical reasons

Importance of Exclusive Breastfeeding

- Formula interferes with immune system priming
- Decreased feeding at breast may lead to lower milk production
- No “nipple confusion”
- Breastfeeding success is more likely if mother exclusively breastfeeds for at least the first 4 weeks
### Health Benefits for the Breastfeeding Mother

- Decreased postpartum bleeding
- More rapid uterine involution
- Decreased menstrual blood loss
- Increased child spacing
- Reduced risk of breast and ovarian cancer
- May facilitate post-partum weight loss


### Health Benefits for the Breastfed Baby

- Breastfeeding protects babies
- Breastmilk is the most complete food for babies - contains all the nutrients a baby will need for first six months
- Breastfeeding promotes mother/infant bonding
Maternal and Infant Health Benefits: 
AHRQ Report

- U.S. Agency for Healthcare Research Quality (AHRQ), DHHS
- Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries, April 2007
  - Evidence-based report/meta-analysis
  - 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>
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</table>

## SECOND TRIMESTER TEACHING

Steps a mother can take during labor to increase success in breastfeeding
Best practices post delivery to facilitate breastfeeding
Labor & Delivery and Its Effects on Breastfeeding

• Spontaneous, un-medicated vaginal birth with immediate, uninterrupted skin-to-skin contact leads to highest likelihood of baby-led breastfeeding initiation
• Longer labors, instrumented deliveries, cesarean section and separation of mother and infant after birth may lead to higher risk of difficulty with breastfeeding initiation
• The effect of epidural anesthesia on breastfeeding remains controversial

Pain Management During Labor

• Continuous support in labor
  – reduces the need for pharmacologic pain management
  – decreases the rates of instrumented delivery and cesarean section
• Non-pharmacologic methods, such as hypnosis and acupuncture, have been found effective in reducing labor pain
**Pain Management and Breastfeeding**

- Both pain and opioid analgesia can have a negative effect on breastfeeding outcomes
- Encourage mothers to control pain with lowest, effective medication dose; opioid analgesia may affect babies’ alertness and suckling vigor
- However, when maternal pain is adequately treated, breastfeeding outcomes improve; pain should be adequately addressed (especially after cesarean birth or severe perineal trauma)

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**Best Practices Post Delivery**

- Mother and baby spend first hour in skin-to-skin contact
- Mother breastfeeds within one hour of delivery in delivery room or after a C-section in OR
- Mother breastfeeds on demand (every time baby is hungry) -- increases milk supply
- Baby rooming with mother helps with learning baby’s hunger cues
- No formula in the hospital and for as long as possible afterwards
- No pacifier for first month -- pacifiers mask hunger cues
Baby’s Hunger Cues

• Most babies nurse 8-10 times every 24 hours
• Baby should not sleep more than 3 hours without waking up to breastfeed
• Rapid eye movement is earliest hunger cue
• Baby will open mouth and move tongue or start to suck on fingers/hands
• Crying is the last sign of hunger and means baby is very hungry
• Easier for baby to take breast before becoming very hungry

THIRD TRIMESTER TEACHING

Positioning and latching
Insurance/Medicaid coverage for breastfeeding
Birth Plan

• Encourage mother to develop a birth plan for breastfeeding that she can bring to the hospital
• Breastfeeding plans should be indicated; may bring own breast pump to hospital
• Discuss available breastfeeding resources in hospital: baby friendly hospital, IBCLC providers on staff

Third Party Coverage for Breastfeeding Support

• Most insurance plans, including Medicaid, cover prenatal and postpartum breastfeeding education, consultation, and breast pumps
• Encourage mother to check her insurance plan
Positioning and Latching

• If breastfeeding hurts, baby is not latched on correctly
• Mother should hold baby belly-to-belly close to her body
• Baby’s mouth should be wide open while feeding
• Mother should listen for swallowing (no clicking or smacking)
• A good latch helps the baby get lots of milk and prevents sore nipples/sore breasts

POST-PARTUM TEACHING
### Assess Breastfeeding

- Work with mom to ensure successful breastfeeding
- Identify barriers
- Discuss breastfeeding resources in community: lactation specialists, IBCLC and/or BF medical physicians, breastfeeding cafes, WIC programs, La Leche League International

### Common Issue – Plugged Ducts

- Localized areas of milk stasis with distention of ducts (sometimes nipple blebs can be seen)
- Palpable tender lump without fever, erythema or myalgia
Plugged Duct - Management

• Instruct mother to:
  – Breastfeed frequently on affected side
  – Offer affected breast first
  – Apply moist, warm cloth to area before BF
  – Massage the lump toward the nipple gently before and during BF, which may help
  – Nurse in different positions to ensure drainage of affected area

Contraception

• Women should be encouraged to think about future plans for childbearing and contraception during prenatal care
• Women should be given information and services to help them meet their goals
• Discuss optimal child spacing and its effects on breastfeeding and mother’s nutritional status
Lactational Amenorrhea

- Breastfeeding confers up to 98% protection from pregnancy in the first six months if:
  - Exclusively breastfeeding (or only supplementing to a minor extent)
  - Intervals between feeding generally do not exceed 4 hours during the day/6 hours at night
  - Supplemental feedings do not exceed 5-10% of the total
  - Menses has not returned

<table>
<thead>
<tr>
<th>Return to ovulation postpartum</th>
<th>Breastfeeding mothers</th>
<th>Non-breastfeeding mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months</td>
<td>45 days (25-72)</td>
<td></td>
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</table>

Algorithm for When to Add Additional Contraception

Ask the mother three questions:
1. Has your menses returned?
2. Are you supplementing regularly or allowing long periods without breastfeeding, either day or night?
3. Is your baby more than 6 months old?

If the answer to any of the above is “yes,” time to add additional contraception!
Contraception Choices: Non-hormonal Methods do not Affect Milk Production

<table>
<thead>
<tr>
<th>Non-hormonal Method</th>
<th>Women experiencing an unintended pregnancy within the first year*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Typical Use</td>
</tr>
<tr>
<td>Condom (male)</td>
<td>15%</td>
</tr>
<tr>
<td>Condom (female)</td>
<td>21%</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>16%</td>
</tr>
<tr>
<td>Contraceptive sponge</td>
<td></td>
</tr>
<tr>
<td>Parous</td>
<td>32%</td>
</tr>
<tr>
<td>Nulliparous</td>
<td>16%</td>
</tr>
<tr>
<td>Spermicide</td>
<td>29%</td>
</tr>
<tr>
<td>Intrauterine device</td>
<td>0.8%</td>
</tr>
<tr>
<td>Natural family planning</td>
<td>25%</td>
</tr>
</tbody>
</table>

Centers for Disease Control and Prevention. [U.S. Medical Eligibility Criteria for Contraceptive Use]. MMWR 2010;59(No. RR-4):[1-88].

Contraception Choices: Hormonal

- Limited data exists about the impact on breastfeeding
- Recent Cochrane review of effects on breastfeeding concluded that evidence is insufficient to reach a definitive conclusion
- However, some studies have suggested that estrogen-containing contraceptives may decrease the amount of breast milk
Hormonal Contraception

• Progestin-only oral contraceptives may be prescribed at discharge from the hospital -- to be started 2 to 3 weeks postpartum
• Depot medroxyprogesterone acetate may be started 6 weeks postpartum
• Hormonal implants may be started 6 weeks postpartum
• Levonorgestrel IUD may be inserted 6 weeks postpartum
• Combined estrogen-progestin contraceptives should not be started before 6 weeks postpartum and only when lactation is well established and infant’s nutritional status is appropriate

NYS Breastfeeding-Friendly Practice

• Designate breastfeeding champion in office
• Train all staff on an ongoing basis in skills necessary to implement and maintain a breastfeeding-friendly office policy
• Determine key breastfeeding messages and ensure consistent use
• Ensure timely follow-up, counseling and support
• Limit/ban formula and industry products in office
• Develop community-clinical linkages
Summary

• Create expectation for breastfeeding early in the pregnancy
• Identify early potential issues that could affect breastfeeding success
• Refer, refer, refer: lactation consultant, WIC office, LaLeche League, community support groups, hospital support group

Thank you!
Evaluations

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