

Lactation Education in Medical School: Lewis Katz Medical School at Temple U

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Disclosures

- PCORI; Co-I, The Path to Optimal Black Maternal Heart Health: Comparing Two CVD Risk Reduction Interventions
- NIMHD; Co-I, Funding to develop an app for Hispanic mothers to assist with breastfeeding
- Board Member: Breastfeeding Resource Center, Abington, PA
- AAP- PA Chapter; Keystone 10 Program, Consultant and Speaker, Program to increase number of Hospitals following the Ten Steps

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Objectives

- Describe a pre-clinical case-based curriculum.
- Outline a breastfeeding curriculum embedded within medical students' required OB/GYN clinical rotation.



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What we used to have

- Nothing
- Asked to teach Anatomy and Physiology of the breast- leaning towards breastfeeding:
 - Breast Physiology Birth→Death
 - Why Breastfeeding is Best
 - Barriers to Breastfeeding
 - Role of Physician
 - Lactogenesis I, II, III
 - Tools for the Physician
 - Resources
 - Current and Future Efforts



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What we have now

- Second year- during Endocrine and Reproduction
 - Lecture on Anatomy and Physiology of Breast
 - Case based learning
 - Nutrition in Pregnancy and Lactation Section
 - Female Reproductive System: Obstetrics
- Third Year OB/Gyn clinical rotation
 - Lecture about “*What Every OB Needs to Know about Breastfeeding*”, intertwined with the Baby Friendly Hospital Initiative



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Case 1: Nutrition in Pregnancy and Lactation

- SM is a 28-year-old G3P2103 cisgender woman (she/her) presenting for her 6-week postpartum visit. She had a spontaneous vaginal delivery at 39 weeks gestation with a second-degree laceration. She is breastfeeding exclusively with a plan to continue for at least 6 months. She had an IUD-LNG placed post-placentally.



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Chief Concerns:

"I have a couple of things I wanted to talk about. First, I'm really struggling with breastfeeding. My baby seems hungry all the time and people keep telling me different things about what I should eat to make more milk. I'm thinking of starting formula to supplement, even though it wasn't my plan. Second, I'm really anxious about losing the baby weight. I gained 42 pounds during pregnancy and I've only lost about 20 pounds so far. I see all these celebrities and influencers who look perfect six weeks after giving birth, and I still look pregnant. I started a strict plant-based diet last week because I want to fit into my clothes, but I'm worried it's affecting my milk supply. I'm exhausted all the time."



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Physical Examination

- Height 5'3", Weight 168 lbs, BMI 29.8 kg/m²
- Blood pressure: 118/76 mmHg
- Breasts: no signs of mastitis
- Abdomen: diastasis recti present (3 cm), otherwise normal postpartum changes.
- Perineum: well-healed

No laboratory results to review, Edinburgh Postnatal Depression Scale score of 13.



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Questions

- What additional questions would you need answered from the patient? What additional laboratory studies (if any) would you want to order?
- What evidence-based recommendations would you provide? Share your references used.
- What key barriers and facilitators might be important or unique to consider for counseling this patient to implement your recommendations?



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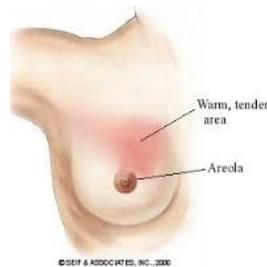
Case 2: Female Reproduction- OB

- 24 yo G1P1001 7 days postpartum status post normal spontaneous vaginal delivery presents to your office with sudden onset fever and chills and feeling flu-like symptoms. Patient was feeling well until this am when they awoke with these symptoms. The patient had normal pregnancy and delivery and is breastfeeding their infant. Baby has not been able to latch reliably since birth. They met with an Internationally Board Certified Lactation Consultant (IBCLC) multiple times and most recently yesterday to try again to get baby to latch.

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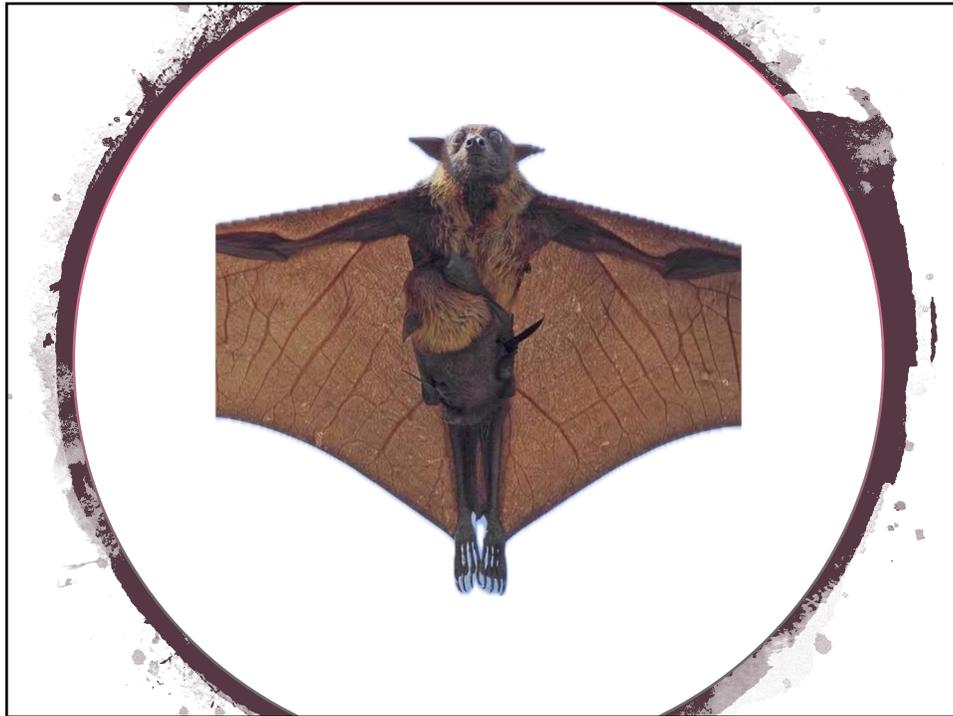
Physical Exam:

- Temp 102.2, RR 16, pulse 105, BP 125/70
- Left breast shows no abnormal findings
- Right breast shows: wedged shaped area of erythema of inner mid-region of breast, mildly tender to touch, no masses palp, no adenopathy noted, milk draining freely from bilateral nipples



Questions

- How is lactation initiated and maintained?
- What is your differential diagnosis?
- What is the most common pathogen and treatment for this diagnosis?
- Given your diagnosis and treatment plan, how would you counsel about breastfeeding?
- Describe what is shown the slide



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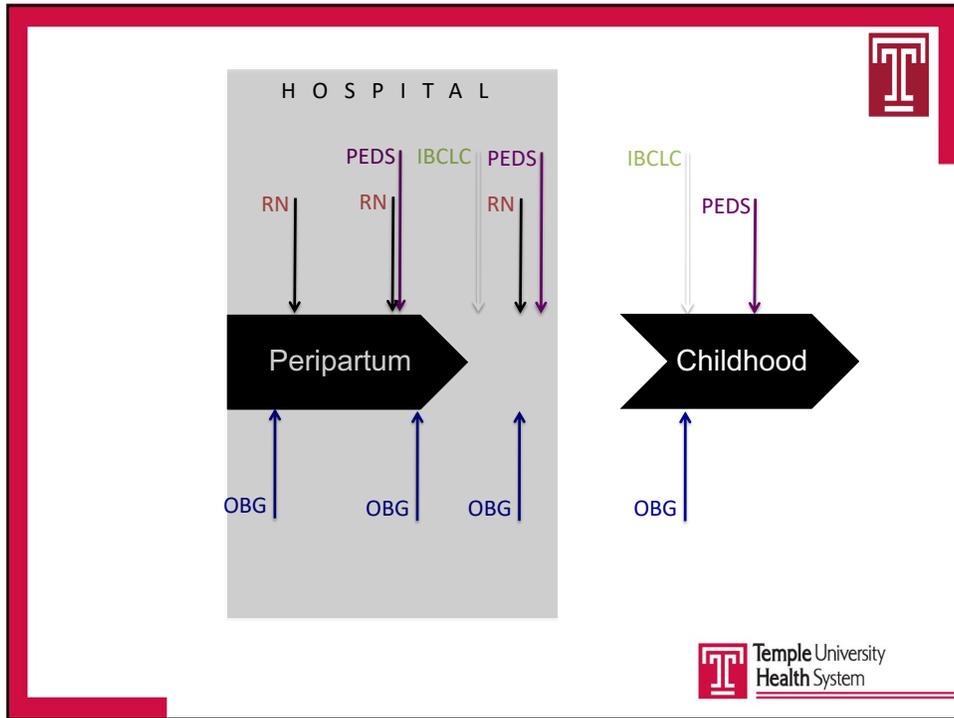
Breastfeeding: What Every OB Should Know

- Why its important for OB's to educate patients prenatally
- Recommendations from Societies- WHO, ACOG, AAP, AFP
- Benefits of BF to: Mother, Child, Society
- Contraindications to BF
- BFHI
- WHO Code
- Prenatal Education of Patient- History, Physical, Barriers?
- Return to Work/School
- Breastfeeding Issues, sore nipples, yeast infections, engorgement/mastitis/abscess continuum, vasospasm, breast mass
- Medications and mother's milk
- Birth control
- Resources after discharge

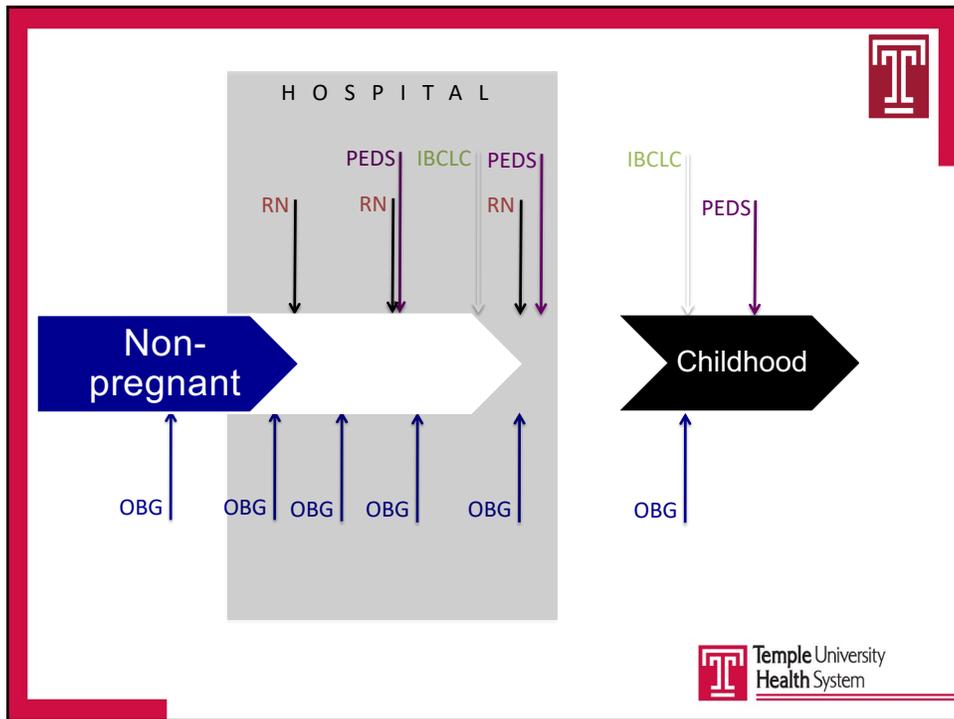
ABM protocol #19



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WHO (ACOG, AAP, AFP) recommendations

- Exclusive breastfeeding for 6 months
- Appropriate and adequate introduction of complementary foods at 6 months
- With continued breastfeeding until 2 years and beyond

<https://www.who.int/>



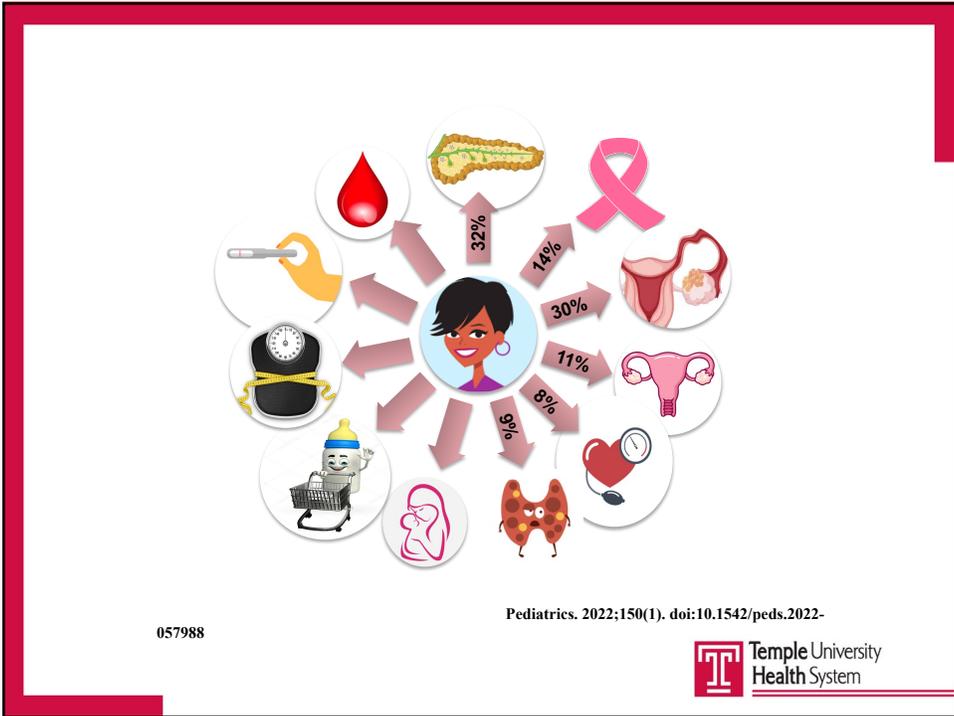
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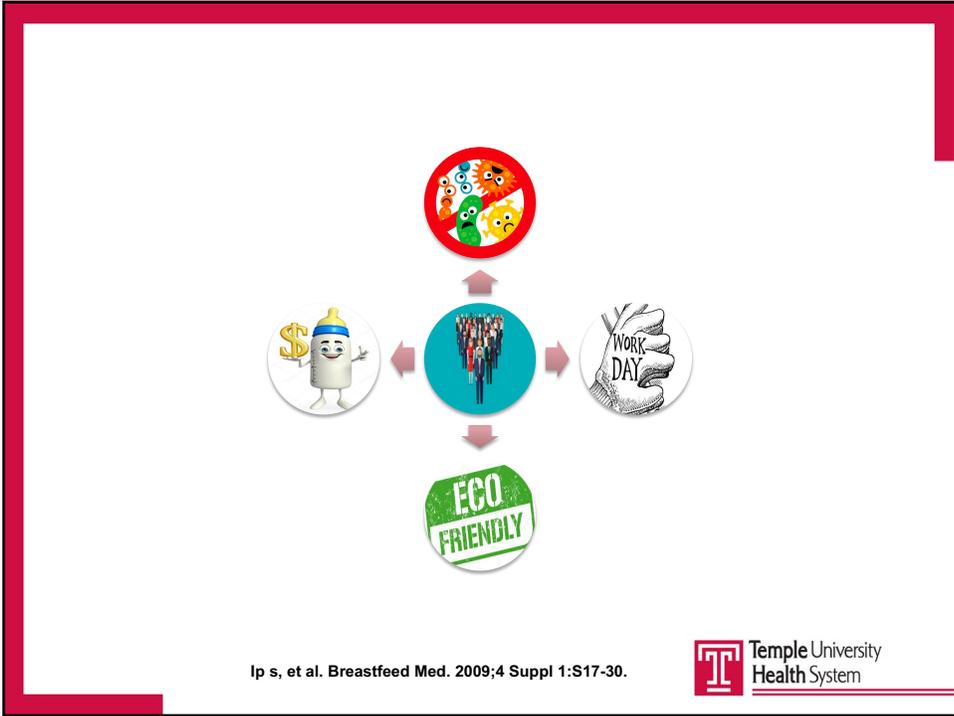
Ip s, et al. Breastfeed Med. 2009;4 Suppl 1:S17-30. Pediatrics. 2022;150(1). doi:10.1542/peds.2022-057988



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The Nine Contraindications to Breastfeeding

- HIV with viral loads
- HTLV I or II
- Active Brucellosis
- Active untreated Tuberculosis
- Herpes Simplex lesion on nipple
- Active Herpes Varicella Zoster (chicken pox or shingles) within 5 days of birth or 2 days after
- Alcohol and Drugs of abuse
- Maternal medications (*very few*)
- Galactosemia –recessive genetic met disorder

Breastfeeding and the Use of Human Milk, Pediatrics, February, 2012



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Baby-Friendly Hospital Initiative (BFHI)

- WHO/UNICEF designation
- Compliance with the *Ten Steps to Successful Breastfeeding at a >80%*
 - These steps are evidence-based guidelines designed to promote and support breastfeeding in hospitals
- Compliance with International Code of Marketing Breast-milk Substitutes (WHO Code)
- Pay fair market price for formula and infant feeding supplies



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10 Steps To Successful Breastfeeding

1. Have a written breastfeeding **policy**
2. **Train** all the health care staff
3. **Inform** all pregnant women of benefits of BF
4. Help mothers **initiate** breastfeeding within one hour
5. If dyad separated, **support** mother's milk supply
6. Give newborns no food or drink other than **breastmilk**, unless medically indicated
7. Practice **rooming in**
8. Encourage breastfeeding **on demand**
9. No routine use of **pacifiers**
10. **Community** outreach and breastfeeding support groups



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Antepartum Education (Early Pregnancy/1st visit)

- History-identify risk factors
 - Obesity
 - Diabetes mellitus
 - PCOS
 - Older primiparous
 - Drug use- Rx, abuse, etc



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Antepartum Education (Early Pregnancy/1st visit)

- Physical Exam-identify risk factors
 - Inverted/flat/large nipples, accessory breast tissue, polythelia
 - Breast scars- biopsy, augmentation, reduction
 - Severe asymmetry (1 cup size difference common)
 - “Tubular” breasts-widely spaced nipple with scant midline tissue
 - Breast mass



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Antepartum Education (2nd trimester, 20-26weeks)

- Re-address decision to breastfeed
- Encourage attendance at prenatal class
- Consider referral of “at risk” mothers to IBCLC or breastfeeding medicine specialist
- Baby-led (on demand feeding)
- Latch & positioning
- **Exclusivity** for 6 months and continuance for 1 year after complementary foods
- Avoidance of pacifiers
- Frequent feeds



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Antepartum Education (3rd trimester, 28-32 weeks)

- Discuss pain relief in labor
- Skin to skin immediate and continued
- Delayed infant weight
- Rooming-in
- No supplement without medical indication-**Exclusivity**
- Return to Work/School



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Postpartum Issues for OB

- Sore Nipples
 - Latch
 - Ankyloglossia
 - Vasospasm
 - Yeast Infections (Nipple and/or Infant)
 - Risks, Treat Both
- Engorgement
- Pain – blocked duct most common reason, vasospasm
- Bleeding
 - Duct- single duct and persistent should evaluate
 - Cracked nipple
- Mastitis spectrum
- Breast Abscess
- Breast Mass



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Medications and Mother's Milk

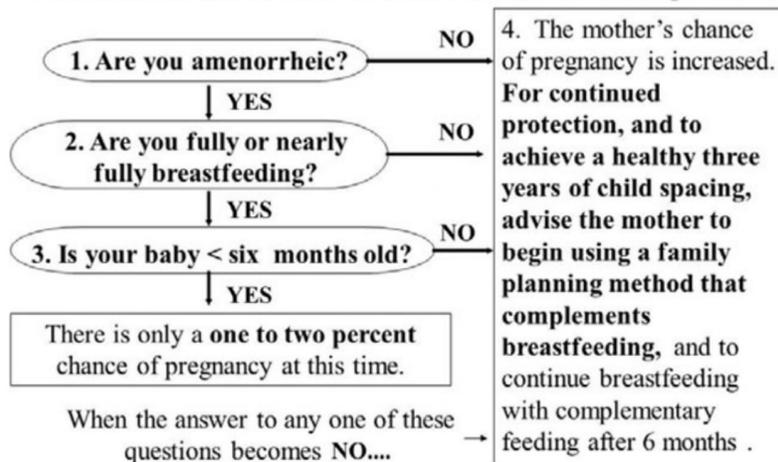
- Most medications are compatible with BF
- Use only lactation-specific resources
 - National Library of Medicine Website- Lactmed
<http://toxnet.nlm.nih.gov/cgi-bin/sis/search>
 - Medications and Mothers' Milk, by Thomas Hale, PhD
 - Local Lactation Consultant



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The Lactational Amenorrhea Method -- LAM

Ask the mother, or advise her to ask herself, these three questions:



ABM Clinical Protocol #13: Contraception During Breastfeeding, Revised 2015
 BREASTFEEDING MEDICINE Volume 10, Number 1, 2015 * Mary Ann Liebert, Inc. DOI: 10.1089/bfm.2015.9999



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World Health Organization and Centers for Disease Control and Prevention Medical Eligibility Categories

WHO category	WHO		CDC	
	Timing postpartum	MEC level	Timing postpartum	MEC level
	With clinical judgment		With limited clinical judgment	
1	Use the method in any circumstances		Use the method	
2	Generally use the method		Use the method	
3	Use of the method not usually recommended unless other, more appropriate methods are not available or acceptable		Do not use the method	
4	Method not to be used		Do not use the method	
LNG-IUD	< 48 hours	3	< 10 minutes	2
	48 hours–4 weeks	3	10 minutes to < 4 weeks	2
	> 4 weeks	1	≥ 4 weeks	1
Cu-IUD	< 48 hours	1	< 10 minutes	1
	48 hours–4 weeks	3	10 minutes to < 4 weeks	2
	> 4 weeks	1	≥ 4 weeks	1

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Questions?

