PharmCon
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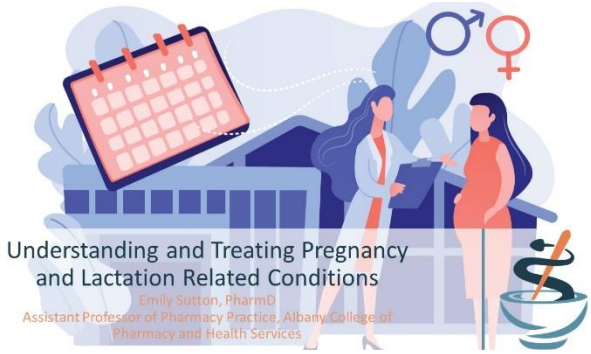
Understanding and Treating Pregnancy and Lactation Related Conditions



Faculty
Emily Sutton, PharmD
Assistant Professor, Albany College of Pharmacy

This program is targeted to those who currently or plan to provide care to pregnant and breastfeeding women. It is designed to introduce participants to conditions that women who are pregnant or breastfeeding may experience and need medications for treatment. Participants will leave with a broader understanding of some of the safe and effective treatments for these conditions. Finally, we will use systematic, collaborative approach to develop and implement a treatment plan for pregnant and breastfeeding women.

Learning Objectives

Pharmacist

1. Identify special considerations for medication safety in pregnant and breastfeeding women
2. Identify pregnancy and breastfeeding related conditions
3. Recognize medications used to treat pregnancy and breastfeeding related conditions
4. Identify applicable elements of the Pharmacist's Patient Care Process to improve care for pregnant and breastfeeding women

Pharmacy Technician

1. Identify special considerations for medication safety in pregnant and breastfeeding women
2. Identify pregnancy and breastfeeding related conditions
3. Recognize medications used to treat pregnancy and breastfeeding related conditions

Nurse

1. Identify special considerations for medication safety in pregnant and breastfeeding women
2. Identify pregnancy and breastfeeding related conditions
3. Recognize medications used to treat pregnancy and breastfeeding related conditions
4. Identify applicable elements of the Pharmacist's Patient Care Process to improve care for pregnant and breastfeeding women

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Target Audience

Pharmacists, Pharmacy Technicians, Nurses

Universal Activity Number

Pharmacist

0798-0000-20-027-L01-P

Pharmacy Technician

0798-0000-20-027-L01-T

Nurse

0798-0000-20-027-L01-N

Credit Hours

1.25 Hours

Activity Type

Knowledge-Based

CE Broker Tracking Number

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Activity Release Date

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Activity Offline Date

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ACPE Expiration Date

March 3, 2023

Educational Support Provided By

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Emily Sutton, PharmD
Assistant Professor of Pharmacy Practice, Albany College of Pharmacy and Health Services

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Faculty Disclosure

- Emily Sutton declares no existence of a financial interest in any amount related to the content of this activity.
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Learning Objectives

At the conclusion of this activity, participants should be better able to:

1. Identify special considerations for medication safety in pregnant and breastfeeding women
2. Identify pregnancy and breastfeeding related conditions
3. Recognize medications used to treat pregnancy and breastfeeding related conditions
4. Identify applicable elements of the Pharmacist's Patient Care Process to improve care for pregnant and breastfeeding women

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Pregnancy Related Conditions

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Medication Safety Considerations in Pregnancy

- Stage of fetal development
- Risk of miscarriage
- Risk of malformations
- Risk of pregnancy complications
- Drug pharmacokinetics

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Resources

- FDA medication information

Previous	New
A, B, C, D, X labeling	Detailed information includes:
	Risk Summary
	Clinical considerations
	Available data
	Information on risks of those who are reproductive potential using drug

- https://www.fda.gov/drugs/labeling-information-drug-products/pregnancy-and-lactation-labeling-drugs-final-rule

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Resources

- Drugs in Pregnancy and Lactation, Dr. Gerald Briggs
- MotherToBaby.org

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Nausea and Vomiting

- Background
  - Incidence is up to 80% of pregnancies for nausea and 50% for vomiting
  - Typically begins early in pregnancy, peaks, then resolves around week 16

• Committee on Practice Bulletins-Obstetrics. ACOG Practice Bulletin No. 189: Nausea And Vomiting Of Pregnancy. Obstet Gynecol. 2018 Jan;131(1):e15-e30.

8

Nausea and Vomiting

- Why it matters
  - Low birth weight / Small for gestational age baby ??
  - Increased hospital admissions
  - Higher psychologic morbidity
  - Risk for rare, serious conditions

- Committee on Practice Bulletins-Obstetrics. ACOG Practice Bulletin No. 189: Nausea And Vomiting Of Pregnancy. Obstet Gynecol. 2018 Jan;131(1):e15-e30.

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Nausea and Vomiting

- Assessment
  - Gestation
  - Weight gain or loss
  - Lab abnormalities
  - Duration and frequency of nausea/vomiting
  - Signs of malnutrition or dehydration

- Committee on Practice Bulletins-Obstetrics. ACOG Practice Bulletin No. 189: Nausea And Vomiting Of Pregnancy. Obstet Gynecol. 2018 Jan;131(1):e15-e30.

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Nausea and Vomiting

- Treatment Options
  - Vitamin B-6 (pyridoxine) with or without doxylamine
  - Antihistamines
    - Dimenhydrinate.
    - Diphenhydramine
    - Prochlorperazine
    - Promethazine
  - Metoclopramide
  - Ondansetron
  - Chlorpromazine
  - Methylprednisolone
  - Trimethobenzamide

- Committee on Practice Bulletins-Obstetrics. ACOG Practice Bulletin No. 189: Nausea And Vomiting Of Pregnancy. Obstet Gynecol. 2018 Jan;131(1):e15-e30.

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Nausea and Vomiting

- Risks of Treatment
  - Antihistamines
    - Sedation
  - Metoclopramide
    - Psychiatric disturbance, extrapyramidal symptoms
  - Ondansetron
    - Congenital abnormalities?
  - Methylprednisolone
    - Oral cleft

- Committee on Practice Bulletins-Obstetrics. ACOG Practice Bulletin No. 189: Nausea And Vomiting Of Pregnancy. Obstet Gynecol. 2018 Jan;131(1):e15-e30.

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Gestational Diabetes

- Background
  - Incidence is over 9% of pregnant women in the US
  - Not OVERT diabetes
  - Diagnosed with Oral Glucose Tolerance test (OGTT)

- Diabetes Care 2019;42(Suppl. 1):S165–S172 | https://doi.org/10.2337/dc19-S014

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Gestational Diabetes

- Why it matters
  - Increased risk of birth complications
  - Fetal macrosomia
  - Future risk of developing diabetes

- Diabetes Care 2019;42(Suppl. 1):S165–S172 | https://doi.org/10.2337/dc19-S014

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Gestational Diabetes

- Assessment
  - Universal screening
  - A1c
  - Fingerstick glucose values
  - Fetal size
  - Fetal well being

- Diabetes Care 2019;42(Suppl. 1):S165–S172 | https://doi.org/10.2337/dc19-S014

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Gestational Diabetes

- Treatment Options – Non-Pharmacologic
  - Blood glucose self monitoring
  - Exercise
  - Diet modification

- Diabetes Care 2019;42(Suppl. 1):S165–S172 | https://doi.org/10.2337/dc19-S014

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Gestational Diabetes

- Treatment Options – Pharmacologic
  - Insulin
  - Metformin
  - Glyburide

- Diabetes Care 2019;42(Suppl. 1):S165–S172 | https://doi.org/10.2337/dc19-S014

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Gestational Diabetes

- Risks of Treatment
  - Insulin
    - Hypoglycemia
  - Metformin
    - Increased risk of prematurity
  - Sulfonylureas
    - Neonatal hypoglycemia
    - Higher rates of fetal macrosomia than insulin and metformin

- Diabetes Care 2019;42(Suppl. 1):S165–S172 | https://doi.org/10.2337/dc19-S014

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Gestational Hypertension/Pre-Eclampsia

- Background
  - Incidence is approximately 10% of pregnancies
  - Progression to preeclampsia happens after 20 weeks gestation to between 20-35% of hypertensive pregnancies
  - Preeclampsia includes hypertension and proteinuria or end organ damage

- WHO. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011

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Gestational Hypertension/Pre-Eclampsia

- Why it matters
  - Increased risk of organ damage
  - Eclampsia/ seizures
  - Higher rate of pre-term delivery
  - Intrauterine growth restriction
  - Increased morbidity and mortality

- WHO. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011

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Gestational Hypertension/Pre-Eclampsia

- Assessment
  - Blood pressure
  - Urinalysis
  - Liver function
  - Kidney function
  - Platelet count
  - Fetal well-being

- WHO. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011

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Gestational Hypertension/Pre-Eclampsia

- Treatment Options – Non-Pharmacologic
  - Gestational Hypertension
    - Calcium supplementation
    - Risk reduction with exercise
  - Delivery of the baby
  - Risk reduction with aspirin

- WHO. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011

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Gestational Hypertension/Pre-Eclampsia

- Treatment Options
  - Blood pressure reduction
    - Labetalol
    - Nifedipine
    - Methyldopa
    - Hydralazine
  - Seizure prevention
    - Magnesium sulfate

- WHO. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011

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Gestational Hypertension/Pre-Eclampsia

- Risks of Treatment
  - Low risk of hypotension
  - Methyldopa
    - Undertreatment
  - Labetatolol
    - Potential hepatotoxicity
  - Nifedipine
    - Well tolerated and effective
  - Hydrazlazine
    - Edema, reflex tachycardia, potentially worse outcomes

- WHO. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011
- Odigboegwu, O., Pan, L. J., & Chatterjee, P. (2018). Use of Antihypertensive Drugs During Preeclampsia. *Frontiers in cardiovascular medicine*, *5*, 50. doi:10.3389/fcvm.2018.00050

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Pre-Term Labor

- Background
  - Incidence is approximately 10% in the US

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Pre-Term Labor

- Why it matters
  - Largest contributor to infant morbidity and mortality
  - Increased healthcare costs
  - Potential for lifelong complications

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Pre-Term Labor

- Assessment
  - History of contractions
  - Fetal fibronectin test
  - Cervical length

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Pre-Term Labor

- Treatment Options –Pharmacologic
  - Beta-agonists
  - Magnesium sulfate
  - Nifedipine
  - NSAIDS
  - Steroid injections

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Pre-Term Labor

- Risks of Treatment
  - Beta-agonists
    - Cardiotoxicity and death
  - Magnesium
    - Nausea, diaphoresis, confusion, cardiac arrest
  - Indomethacin
    - Premature closure or ductus arteroisis

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Pre-Term Labor

- Prevention
  - Hydroxyprogesterone caproate
    - Given from weeks 16 though 37th week of gestation
    - Weekly injections given subcutaneous by healthcare professional
    - For history of spontaneous preterm birth of a singleton

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Pre-Term Labor

- Background
  - 30+% of women colonized with potential pathogen
  - May not be symptomatic
  - Universal screening for Group B strep and sexually transmitted infections

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Pregnancy—Related Infections

- Why it matters
  - Increased risk of preterm birth
  - Potential for lifelong complications
  - Increased morbidity and mortality

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Pregnancy—Related Infections

- Treatment Options
  - Antibiotics
  - Group B strep
    - Penicillin, ampicillin
    - Cefazolin,
    - Clindamycin
  - Premature rupture of membranes
    - Broad spectrum
      - Ampicillin + erythromycin then amoxicillin + erythromycin

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Pregnancy—Related Infections

- Treatment Options
  - Antibiotics
  - Chlamydia and Gonorrhea
    - Azithromycin
  - Vaginal infections
    - Bacterial vaginosis
      - Topical or oral metronidazole

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Pregnancy—Related Infections

- Risks of Treatment
  - Postpartum Candida infections

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Breastfeeding-Related Conditions

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Medication Safety Considerations in Breastfeeding

- Age/developmental stage of infant
- Frequency of breastfeeding intervals
- Effect on ability to breastfeed
- Drug pharmacokinetics

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Medications in Lactation Resources

- LactMed
- Drugs in Pregnancy and Lactation, Dr. Gerald Briggs
- MommyMeds/Mommy Meds Pro
  - Medications and Mother's Milk, Dr. Thomas Hale

- https://www.ncbi.nlm.nih.gov/books/NBK501547/

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Insufficient Milk Supply

- Why it matters
  - Unnecessary formula supplementation
  - Early cessation of breastfeeding
  - Infant jaundice
  - Infant failure to thrive

- The Academy of Breastfeeding Medicine Protocol Committee.Breastfeeding Medicine.Feb 2011.ahead of printhttp://doi.org/10.1089/bfm.2011.9998

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Insufficient Milk Supply

- Assessment
- Potential medical causes of low milk supply
  - Insufficient glandular tissue
  - Pregnancy
  - Decreased prolactin secretion
  - Endocrine disorders
- Medications that can decrease milk supply
  - Hormonal contraception
  - Anticholinergic medications
  - Diuretics

- The Academy of Breastfeeding Medicine Protocol Committee.Breastfeeding Medicine.Feb 2011.ahead of printhttp://doi.org/10.1089/bfm.2011.9998

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Insufficient Milk Supply

- Treatment Options – Non-Pharmacologic
  - Thorough evaluation of breast physiology and mechanics of breastfeeding
  - Increase endogenous oxytocin levels by:
    - Frequent feedings, skin to skin contact
    - Relaxation techniques
  - Acknowledge barriers to effective breastfeeding
  - Utilize effective breast pumping techniques

- The Academy of Breastfeeding Medicine Protocol Committee.Breastfeeding Medicine.Feb 2011.ahead of printhttp://doi.org/10.1089/bfm.2011.9998

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Insufficient Milk Supply

- Treatment Options – Pharmacologic
- Dopamine antagonists (not FDA approved)
  - Domperidone
  - Metoclopramide
- Herbals
  - Fenugreek

- The Academy of Breastfeeding Medicine Protocol Committee.Breastfeeding Medicine.Feb 2011.ahead of printhttp://doi.org/10.1089/bfm.2011.9998

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Insufficient Milk Supply

- Risks of Treatment
- Dopamine Antagonists
  - Mood lability for mom
  - QTc prolongation (domperidone)
  - Extrapyramidal symptoms for mom (metoclopramide)
- Fenugreek
  - Maple syrup odor
  - Diarrhea
  - Cross allergies

- The Academy of Breastfeeding Medicine Protocol Committee.Breastfeeding Medicine.Feb 2011.ahead of printhttp://doi.org/10.1089/bfm.2011.9998

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Insufficient Milk Supply

- Randomized, double blind, placebo-controlled trial (Thailand)
- 50 women randomized and completed
- Looked at milk volume and nutrient composition at weeks 0, 2, and 4
- Each dose contained:

600 mg fenugreek seed

360 mg ginger

300 mg turmeric

- The Academy of Breastfeeding Medicine Protocol Committee.Breastfeeding Medicine.Feb 2011.ahead of printhttp://doi.org/10.1089/bfm.2011.9998

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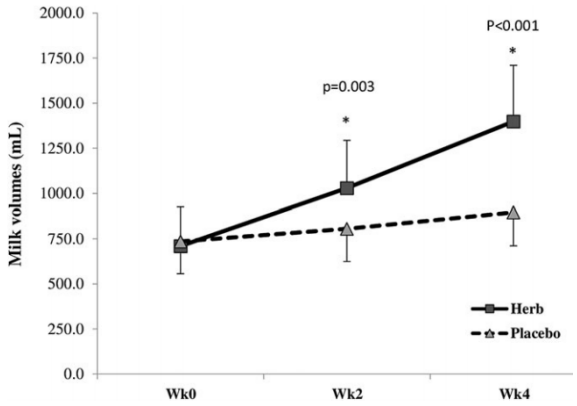
Results



- Increased milk volume
  - 225 ml/day week 2
  - 503 ml/day week 4
- Similar nutrient composition
- No serious adverse effects
- Limitations:
  - Women inclusion criteria did not specify women with "low supply"

- Effects of Fenugreek, Ginger, and Turmeric Supplementation on Human Milk Volume and Nutrient Content in Breastfeeding Mothers: A Randomized Double-Blind Controlled Trial. Akkarach A Bumrungpert
- Breastfeeding medicine : the official journal of the Academy of Breastfeeding Medicine. 2018-11-09

45

Thrush

- Background
  - Typical pathogen is Candida albicans
  - Hard to estimate incidence

- Sharon Wiener, CNM, MPH. Diagnosis and Management of Candida of the Nipple and Breast. J Midwifery Womens Health. 2006;51(2):125-128.
- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Thrush

- Why it matters
  - Progression to mastitis
  - Transmission to infant
  - Increased pain with breastfeeding
  - Premature cessation of breastfeeding

- Sharon Wiener, CNM, MPH. Diagnosis and Management of Candida of the Nipple and Breast. J Midwifery Womens Health. 2006;51(2):125-128.
- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Thrush

- Assessment
  - Medication history
  - Examination of nipple
  - Examination of baby's mouth

- Sharon Wiener, CNM, MPH. Diagnosis and Management of Candida of the Nipple and Breast. J Midwifery Womens Health. 2006;51(2):125-128.
- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Thrush

- Treatment Options – Non-Pharmacologic
  - Sterilize contaminated items
  - Keep nipples clean and dry
  - Wash hands carefully

- Sharon Wiener, CNM, MPH. Diagnosis and Management of Candida of the Nipple and Breast. J Midwifery Womens Health. 2006;51(2):125-128.
- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Thrush

- Treatment Options - Pharmacologic
  - Miconazole or clotrimazole
  - Nystatin ointment
  - Mupirocin
  - Steroid cream
  - Fluconazole
  - Gentian Violet?

- Sharon Wiener, CNM, MPH. Diagnosis and Management of Candida of the Nipple and Breast. J Midwifery Womens Health. 2006;51(2):125-128.
- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Thrush

- Risks of Treatment
  - Resistance
  - Drug interactions with fluconazole

- Sharon Wiener, CNM, MPH. Diagnosis and Management of Candida of the Nipple and Breast. J **Midwifery Womens Health.** 2006;51(2):125-128.
- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Mastitis

- Background
  - Can happen in up to 20% of breastfeeding women
  - Typically happens in the first 6 weeks of breastfeeding
  - Pathogen typically:
    - PCN resistant S. aureus
    - Staphylococcus
    - E. Coli

- Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med.* 2014;9(5):239–243. doi:10.1089/bfm.2014.9984

52

Mastitis

- Why it matters
  - Early discontinuation of breastfeeding
  - Progression to or of infection

Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med.* 2014;9(5):239–243. doi:10.1089/bfm.2014.9984

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Mastitis

- Assessment
  - Examination of nipple and breast
  - Vital signs

Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med.* 2014;9(5):239–243. doi:10.1089/bfm.2014.9984

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Mastitis

- Treatment Options Non-Pharmacologic
  - Frequent and effective milk removal
  - Rest
  - Increased fluids
  - Adequate nutrition
  - Good hygiene

Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med.* 2014;9(5):239–243. doi:10.1089/bfm.2014.9984

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Mastitis

- Treatment Options Pharmacologic
- Pain relief
  - Ibuprofen
  - Acetaminophen
- Infection treatment
  - 10-14 days (soft recommendation)
  - Cephalexin
  - Clindamycin
  - Dicloxacillin

Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med.* 2014;9(5):239–243. doi:10.1089/bfm.2014.9984

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Mastitis

- Risks of Treatment
  - Thrush with repeated antibiotics
  - Diarrhea/GI upset

- Amir LH; Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med.* 2014;9(5):239–243. doi:10.1089/bfm.2014.9984

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Nipple Pain

- Background
  - Common in first postpartum weeks
  - Persistent pain lasts longer than 2 weeks

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Nipple Pain

- Why it matters
  - Early breastfeeding discontinuation
  - Increased postpartum depression

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Nipple Pain

- Assessment
  - Rule out infections
  - Nipple damage
  - Vasospasm/Raynaud's phenomenon
  - Allodynia/functional pain

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Nipple Pain

- Treatment Options – Non-pharmacologic
  - Nipple Damage
  - Work with professionals to assess latch/pumping techniques

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Nipple Pain

Treatment Options – Non-Pharmacologic

- Vasospasm
  - Apply warmth to nipples after a feed or whenever pain is experienced
  - Avoid cold to the breast and nipples
- Allodynia
  - (Feeling pain from a normally non-painful stimulus)
- Trigger point therapy
- Massage therapy

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Nipple Pain

Treatment Options – Pharmacologic (not FDA approved)

- Vasospasm
  - Nifedipine (oral)
    - SR or IR
    - 2-week duration
- Allodynia
  - Propranolol (oral)
  - Antidepressants
  - Scheduled NSAIDs

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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Nipple Pain

- Risks of Treatment
  - Nifedipine
    - Hypotension
  - Propranolol
    - Fatigue

- Pamela Berens, Anne Eglash, Michele Malloy, Alison M. Steube, and the Academy of Breastfeeding Medicine.Breastfeeding Medicine.Mar 2016.ahead of printhttp://doi.org/10.1089/bfm.2016.29002.pjb

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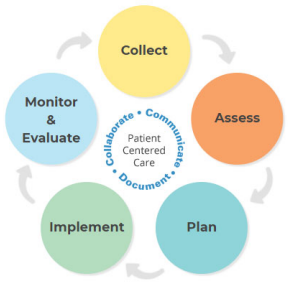
Patient Case

- BR is a 24 YO female presenting to her community pharmacy with questions about the safety of using ibuprofen in breastfeeding.



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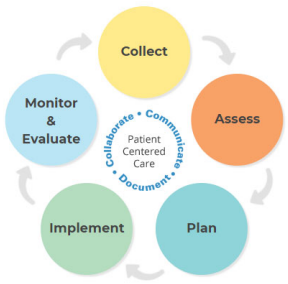
Patient Case

- Why does she need ibuprofen? – *nipple pain*
- What symptoms does she have? – *pain after feeding, nipple turns white*
- How old is her baby?- *3 months old*
- How long has this been happening? – *1 month*
- What is her past medical history? – *recently diagnosed with vasospasms*
- What has she tried? – *acetaminophen did not work very well*
- Any other symptoms? – *no white spots in baby's mouth, no hard bumps or red spots on breast, no fever or fatigue*



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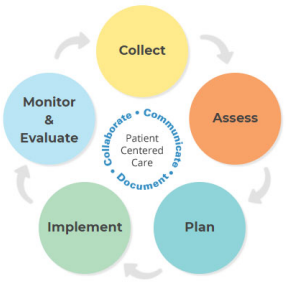
Patient Case Assess

- Assess ibuprofen for appropriateness
- No signs and symptoms of infectious process
- May be used in breastfeeding
- May not be helpful for pain with vasospasm



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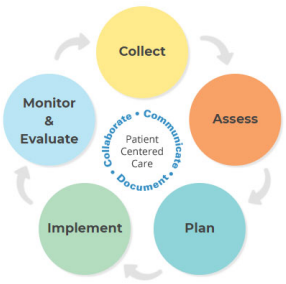
Patient Case Plan

- Non-pharmacologic measures
  - Apply heat to breast after feedings and with pain
- Pharmacologic measures
  - Speak with prescriber to recommend nifedipine



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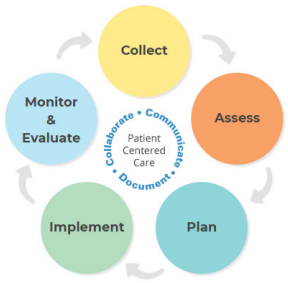
Patient Case Implement

- Contact provider for recommendation
- Counsel patient on potential side effects of nifedipine
  - Hypotension
  - Peripheral edema
- Ensure patient has a plan to follow up in 2 weeks



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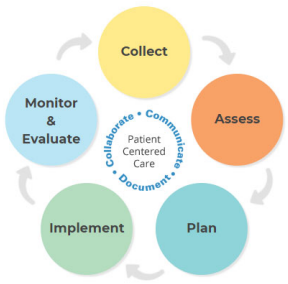
Patient Case Follow-Up

- Most pain should be gone in about 2 weeks
- May check blood pressure prior to 2 weeks if dizziness occurs
- Ensure continuing contact with lactation professional
- Follow over time for Raynaud's phenomenon and/or connective tissue disorders



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Key Takeaways

- Many factors are involved in how to assess medication safety in pregnancy. When in doubt, review drug information resources.
- There are many medical conditions that may be uniquely associated with pregnancy and lactation. Pharmacists should be aware of when to refer to provider or emergency department.
- Most of the treatments for these are not FDA approved, but are guideline recommended. Risks and benefits are carefully considered and typically influence the order in which therapy is recommended.
- The Pharmacist Patient Care Process may apply to helping a team care for those who are pregnant or breastfeeding..

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Thank You

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