Breastfeeding Pain Visit
All mothers receive EPDS on arrival to clinic appointment

LC evaluation of dyad
Assess infant oral anatomy, latch, milk transfer, breast, pumping

Evaluation and management with NP / CNM / MD

EPDS screen > 10 or concern for depression?
Yes
Manage per postpartum depression protocol: 10-12 intermediate, 13+ high risk

No

Infant pulls off breast in distress with feeds? Pain with latch, not pumping?

Yes
Infant coughs with let down? Explosive stools, excellent weight gain? Documented appropriate milk transfer?

No

Bacterial infection

Nipple fissures, yellow crust, erosions, pustules, rind over nipple that occludes ductal openings?

Yes

Irritant dermatitis

Tender, burning, red, fissures w/o exudate; itching, oozing with well defined plaques?

No

Milk bleb

Nipple “bleb” or blister that is exquisitely sensitive to touch, latch?

Yes

Blocked duct

Develops gradually and is associated with localized pain?

No

Oversupply

Infant tends to palpation without erythema?

Mastitis

Yes

Vasospasm / Functional Pain

Absence of visible trauma to nipple? Cold sensitivity? Alldynia / hyperalgesia on L-QST? Itching, burning pain? Pain w/ blanching / deep purple color changes after feeding or pumping? Radiating, shooting, electric pain?

No

Myofascial Pain

Muscle tenderness on neck, shoulders and pectoral muscles?

Yes

Ductal infection

Deep pulling, throbbing pain after feeding, tenderness w/ palpation, manual expression

No

Candida

Infra mammary rash, itching, no response to topical mupirocin / barrier ointment for dermatitis?

Yes

Infant w/ oral thrush / diaper rash / systemic candidemia?

No

Muscle tenderness on neck, shoulders and pectoral muscles?

Yes

Infant w/ oral thrush / diaper rash / systemic candidemia?

No

Infant pulls off breast in distress with feeds? Pain with latch, not pumping?

No

Exquisite sensitivity of nipple to light touch? Shooting, burning pain between feedings?

Yes

Infant coughs with let down? Explosive stools, excellent weight gain? Documented appropriate milk transfer?

No

Infant w/ oral thrush / diaper rash / systemic candidemia?

Yes

Deep pulling, throbbing pain after feeding, tenderness w/ palpation, manual expression

No

Myofascial Pain

Muscle tenderness on neck, shoulders and pectoral muscles?

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Infant w/ oral thrush / diaper rash / systemic candidemia?

Yes

Deep pulling, throbbing pain after feeding, tenderness w/ palpation, manual expression

No

Myofascial Pain

Infra mammary rash, itching, no response to topical mupirocin / barrier ointment for dermatitis?

Yes
Breast tenderness w/ reddened, sore area that feels warm. Flu-like symptoms, generalized body aches, fatigue. Chills or fever ≥101°F orally[1]

**Mastitis**

Milk sample for aerobic culture for recurrent mastitis, ORSA risk factors, severe symptoms or at clinician discretion. See: http://bit.ly/BFCulture

Penicillin allergy?  
Yes  
- Severe?  
  Yes, anaphylaxis  
  - Review mastitis supportive care, contact LC on call  
  - Blocked duct?  
    Yes  
    - Blocked Duct protocol  
    No  
    - Mass persists >2 days?  
      Yes  
      - Complete antibiotic course  
      No  
      - Improving after 24-48 hours?  
        Yes  
        - Complete antibiotic course  
        No  
        - Not improving or worsening after 12 hours  
          - SAME DAY EVALUATION Mastitis not responded to antibiotics / suspected abscess  
  No, rash  
  - Dicloxacillin 500mg PO QID x 10 days  
  - Cephelexin 500mg PO QID x 10 days  
  - Clindamycin 300-450mg PO QID x 10 days

No  
- UNC OB/Gyn Phone call

See Phone Triage protocol

**Risk factors for ORSA**
- Recent hospitalization
- Residence in a long term care facility
- Recent antibiotic therapy
- Injection drug use
- Hemodialysis
- Incarceration
- Military service
- Sharing needles, razors or other sharp objects
- Sharing sports equipment
- Health care worker
- Poorly controlled diabetes

**Supportive Care**
“Rest, fluids, empty the breast.” No risk to infant continuing breastfeeding during infection, risk to mom with abrupt weaning. Nurse / pump every 2-3 hours. For pain and fever, recommend: Acetaminophen 650mg q4-6 hours (maximum 3500 mg/day) or Ibuprofen 600 mg q6h. Counsel patient that symptoms should improve in 24 to 48 hours. If symptoms progress after 12 hours or persists after 24-48 hours, she should be seen in clinic by a licensed independent provider, or come to the ER if after hours or weekend for evaluation.
Mastitis not responding to antibiotics / suspected abscess

Patient with mastitis, not responding to antibiotics
Worsening after 12h or not improved after 24-48h of treatment

SAME DAY evaluation in OB Clinic with MD, CNM or NP provider and lactation consultant, or ED if after hours
Document vital signs, including temperature
Evaluate for other causes of fever and document physical exam
Obtain milk culture from affected breast – see http://bit.ly/BFCulture

Abscess suspected?

Yes

SAME DAY breast ultrasound
Call 984-974-8762 to schedule and enter order into Epic

Abscess seen?

Yes

SAME DAY aspiration [2] or breast surgery consultation. If consultation indicated, Mammography will call up to Surgical Oncology Clinic for add-on appointment, or send her to ED if after hours

No

Refering provider discusses results with patient in clinic / by phone and determines plan of care.

Consider admission if patient is ill, with fever >38.5c, immunosuppression (Diabetes, Renal failure, morbid obesity, etc), abscess >5cm, Infection ≥2 sites. Order Lactation Consult on admission

Consider empiric change of antibiotics to clindamycin, or trimethoprim / sulfamethoxazole if infant > 4 wks, for ORSA coverage.

Schedule follow-up in 48-72 hours, with instructions for patient to call Nurse Advice Line to cancel if not responding to new antibiotic

OB Provider / RN follows up culture results

Culture sensitive to antibiotic?

Yes

Continue antibiotic x 10-14 days

No

If not clinically improved, switch to antibiotic that covers cultured organism

Patient counselled to contact Lactation Warm Line within 3-5 days re recovery of milk supply, feeding concerns, etc

Reference information
4-xxxx = 984-974-xxxx

Phone contacts
Mammography / breast imaging scheduling 4-8762
Surgical Oncology Clinic Work Room 4-8220
ED Triage
Ask to speak to Team D Attending
GYN resident on call 216-6234
OB Nurse advice line 4-6823
Lactation Consultation
Outpatient clinic pager 347-1562
Outpatient mobile phone 4-9245
Warm Line for patient calls 4-8078

ICD10 codes for breast imaging order
O91.12 Breast Abscess
O91.22 Non-purulent mastitis
O92.79 Other Disorders of Lactation

Mastitis not responsive to antibiotics is an abscess until proven otherwise.

Patients should be evaluated on the SAME DAY, either in clinic by a Licensed Independent Provider or in the Emergency Department.

Radiologic evidence of an abscess requires drainage by radiology or SAME DAY evaluation by the breast surgery team.
Nipple fissures, yellow crust, erosions, pustules, no systemic symptoms?

**Bacterial infection**

- **Severe pain[3]?**
  - Yes: Treat with systemic antibiotics per mastitis protocol
  - No: Mupirocin 2% ointment TID for < 14 days, review mastitis precautions

Supportive measures: Address latch, continue frequent breastfeeding, apply Crisco, coconut oil or medical grade honey

- Blocked duct?
  - Yes: Complete prescribed treatment, follow-up as needed
  - No: Improvement in 2-3 days?
    - No: Review culture result, consider alternate antibiotics.

Sensitive organism or skin flora?

- Skin healed?
  - No: Re-eval latch, suck, pump use. Consider dermatology referral
  - Yes: Yeast detected
    - YES: Candida Protocol
    - NO: Review sensitivities and treat accordingly. Advise patient that she may need to be re-cultured at time of any future hospital admission.
Tender, burning, red, fissures w/o yellow exudate; itching, oozing with well-defined plaques[4].

**Dermatitis**

- Tender, burning, red, fissures w/o yellow exudate, ill-defined borders
- Itching, oozing with well-defined plaques, excoriations.

**Irritant Dermatitis**
For severe symptoms, consider medium potency steroid—0.1% Triamcinolone 2-3 times a day x 7 days

**Contact dermatitis**
Remove cause—topical creams, wipes, moisturizes; assess for pattern matching pump flange.
Switch to hypo-allergenic detergent. If infant eating solids, rinse nipple after feeds—food in mouth may be allergen.
Apply medium potency steroid—Triamcinolone 0.1% ointment—2-3 times a day x 14 days.
For severe itching, consider Cetirizine (Zyrtec), balancing theoretical risk of decreased milk supply.

- **Apply barrier ointment** (Crisco, Coconut oil, Medical Grade Honey, Petrolatum) after each feed.
- **Consider covering nipple-areolar complex** with gauze or nipple shells. Wear cotton bras.
- **Hydrogels should not be used** with barrier ointment.
- **If using Petrolatum and ointment is still visible** before the next feeding or pumping, wash off the nipples with water and gentle cleanser (Cetaphil, equivalent generic).

Not improved in 5-7 days?

- **Nipples swab for aerobic culture** http://bit.ly/BFCulture

- **Review final culture result**

  - **Negative culture, Persistent pain**
    - Skin healed?
      - No
        - Re-eval latch, suck, pump use. Consider dermatology referral
      - Yes
        - Vasospasm / functional pain protocol
  - Yes
    - Positive yeast screen
      - Candida Protocol
    - Staph or other bacterial pathogen
      - Treat per bacterial infection protocol

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Nipple “bleb” or blister that is exquisitely sensitive to touch, latch?

Milk bleb

Blocked duct?

Yes

Blocked duct protocol

No

Soak nipple before and/or after most feedings in warm (not hot!) water. Consider Epsom salt soaks. Consider mupirocin per bacterial infection protocol.

5-7 days

Improvement?

No

Consider thin layer of mid potency steroid (Triamcinolone 0.1%) and occlusive dressing [5] or Unroof bleb with sterile needle after prepping nipple with alcohol wipe. Treat w/ mupirocin x 7 days.
Palpable lump or knot which develops gradually and is associated with localized pain, may decrease in size with milk removal.

**Blocked Duct**

- Erythema, fever, systemic symptoms?
  - Yes → Mastitis protocol
  - No → Position infant with chin or nose pointing toward blockage. Over 24 hours, after most feedings, soak breast in warm (not hot!) water. Use hand massage and pump to empty breast after feeds. Wear loose-fitting bra, get plenty of rest. Ibuprofen 600mg q6 hours x 7 days

- Pump type, flange fit prevents complete emptying?
  - Yes → New flange, different pump as indicated.
  - No → Infant jaw alignment, suck exam, cranial symmetry, spinal alignment affecting drainage?
    - Yes → Stretching exercises for torticollis, consider OT/PT/Speech referral
    - No → Mass persists 5-7 days?
      - Yes → Refer for breast ultrasound
      - Persistent plugging, no dominant mass → Recurrent/persistent blocked ducts: Consider Lecithin 1200 mg TID-QID and Probiotics. Consider cultures / systemic antibiotics. Evaluate for oversupply. Although limited evidence, other options to consider are Lymphatic drainage therapy or Therapeutic U/S
      - No → Normal ultrasound, persistent plugging
Full drainage / scheduled block feeds
Using a double electric pump, empty both breasts completely. Feed baby on both sides after drainage. This provides infant slow-flow, fat-rich hind milk.
Following full drainage, block feed by offering infant one breast for all feedings for 3 hours, and then switch to the other breast. Gradually increase the length of the blocks as needed to down-regulate milk production.

Absence of visible trauma to nipple?
Exquisite sensitivity of nipple to light touch?
Shooting, burning pain between feedings?
Cold sensitivity?
Allodynia / hyperalgesia on L-QST [8]?

**Vasospasm / Functional Pain**

- ibuprofen 600mg q6 hours for inflammation.
- Counsel re mindfulness, deep breathing,
  “Suffering = pain x resistance”
- Consider massage for trigger point release.

**Histamine-mediated pain [8]**
- Itching, burning pain
- Sensitive skin / dermatographia
- History of allergic reactions - environmental allergies, food sensitivities, hives, drug allergies

**Vasospasm [8,9]**
- Pain with blanching / deep purple color changes after feeding
- History of Raynaud’s or cold sensitivity
- Pain improves with heat
- Pain w/ cold air exiting shower

**Neurpathic pain [8]**
- Radiating, shooting, electric pain
- Visible, lacy capillaries - Asbill sign [8]
- History of functional pain
- Allodynia or hyperalgesia on L-QST
- Pain drying breasts with towel

**Non-sedating antihistamine [8]**
- Choose agent patient has tolerated well in the past
- Consider adding H2 blocker if already taking H1 blocker
- Review theoretical risk of reduced milk supply

**Heat to breasts after feeding – warm rice sock, reflective breast warmers**
- Dress warmly, wear vest, control ambient temperatures
- Reduce caffeine
- **Nifedipine XL 30 mg [8,9]**
- Review orthostatic precautions, side effect of headache. Hydrate well.
  *Use caution for blood pressure <100/70*

**Propranolol 10-20 mg TID** for centrally mediated pain syndrome [8,11]
- Titrate up to maximum dose 240mg/QD, keeping HR >60
- **When stopping, taper by 20 mg/day**
- **Review side effects: fatigue, mood changes**
- Assess resting heart rate before increasing dose

**Persistent symptoms?**

Yes → Second line options to consider: Acupuncture
- Nortriptyline 25-50 PO QHS, titrate up q2-3 days, max dose 150mg/day.
- Duloxetine (Cymbalta) – 30 mg PO QD x 1 wk, increase to 60 mg QD
- Consider milk cultures per ductal infection protocol [10]

No → **Taper medications one at a time, titrating to symptom control**
Muscle tenderness on neck, shoulders and pectoral muscles?

Myofascial Pain

Myofascial Pain

Multimodal management, per patient’s preferences

NSAIDs

ibuprofen 600mg q6 hours for inflammation

Positioning during feeding
Semi-reclined position w/ knees slightly higher than hips
Place small pillow / towel against low back
Bring baby to breast, rather than breast to baby, to protect neck and shoulders
Consider a pillow to support mother’s forearm and shoulder

Side-lying feeding
Place a pillow between mother’s knees or ankles

Baby wearing
Consider visiting a baby-wearing group to get help with fitting and using a baby carrier. Find a local chapter at https://babywearinginternational.org/

Pectoralis Stretching and Massage
Stand in a doorway and place one arm against the door frame, with your elbow slightly higher than your shoulder. Relax your shoulders as you lean forward, allowing your chest and shoulder muscles to stretch. Hold for 15-30 seconds, and repeat 2-4 times for each arm.

Massage the upper pectoral muscles with your flat hand.
Massage the serratus muscles with the tips of your fingers.
Consider a postnatal yoga class

Referrals for management of myofascial pain
Therapeutic massage / trigger point release
Physical therapy
Acupuncture

References
Preventing Musculoskeletal Pain in Mothers
Ergonomic Tips for Lactation Consultants

Severe Breast Pain Resolved with Pectoral Muscle Massage

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Deep pulling, throbbing pain after feeding, tenderness on breast palpation, pain with manual expression

**Ductal infection**

Obtain milk cultures for aerobic culture

Supportive measures:
Warmth to breast after feeds per vasospasm protocol, probiotics and ibuprofen 600 mg q 6 hours.
Follow-up 5-7 days.

Gradually taper heat / NSAIDs as tolerated.

Response to supportive measures?

- Yes
- Partial
- No

Consider evaluation for vasospasm / functional pain

Persistent symptoms and positive culture?

- No
- Yes

Yeast detected

Bacteria

Treat per sensitivities with narrowest spectrum antibiotic x 14 days

Clinical response?

- Yes
- Partial
- No

Healthy infant > 4 wks, no h/o Sulfas allergy or G6PD deficiency

Consider 14 days of empiric treatment for chronic bacterial lactiferous duct infection:
- cephelexin 500 mg QID
- dicloxacillin 500 mg QID
- erythromycin 500 mg QID, or amoxicillin/clavulanate 875 mg BID

In case series, some women reported resolution after > 6 weeks of antibiotics [12]

Choosing a probiotic

For buying commercial probiotics, just to make sure that:
* They are kept refrigerated
* The more UFC (cells) the better
* Get something that contains multiple strains
* Get the product with the furthest expiration date

With regards to prebiotics, there are probiotics preparations that come with prebiotics (they are called synbiotics), look for inulin, FOS, or GOS.

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Infant w/ oral thrush / diaper rash / systemic candidemia?
Rash under breast with pruritis, erythema? Shiny, red nipples with flaking skin? [13] No response to topical mupirocin / barrier ointment for dermatitis?

**Candida**

- Topical or systemic antifungal used in past 24-48 hours?
  - Yes
    - Assess infant
    - Topical antifungal vs. mupirocin treatment while awaiting cultures
    - Treat with topical mupirocin[16], clotrimazole or ketoconazole applied to breast after each feed x 14 days. Review contact dermatitis precautions
    - If pain with application of ketoconazole, switch to clotrimazole or nystatin.
  - No
    - Obtain nipple and milk cultures, send for aerobic culture and yeast screen. Specify “r/o ductal candida” on yeast screen order. See http://bit.ly/BFCulture
    - Infant with signs of oral thrush: White plaques on buccal mucosa and/or palate.
    - Suspect resistant candida?
      - No
        - No infant rx unless positive maternal culture
      - Yes
        - Defer cultures until 48 hours after last dose of antifungal.

- Suspect resistant candida?
  - No
    - No response to topical mupirocin / barrier ointment for dermatitis?
      - Yes
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      - No
        - Candida Topical or systemic antifungal used in past 24-48 hours?
          - Yes
            - Suspect resistant candida?
              - No
                - Obtain nipple and milk cultures, send for aerobic culture and yeast screen. Specify “r/o ductal candida” on yeast screen order. See http://bit.ly/BFCulture
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          - No
            - No infant rx unless positive maternal culture

- No infant rx unless positive maternal culture
  - Yes
    - Defer cultures until 48 hours after last dose of antifungal.
  - No
    - Yes
      - Topical nystatin 100,000 u/mL susp, 0.5 mL swabbed over mucosal surfaces after each feeding x 14 days[14]. Consider compounded clotrimazole ointment.
      - Not improved after 5-7 days
      - Treat with oral diflucan 6mg/kg loading, 3mg/kg qd x 7 days[15]
      - Positive yeast culture, persistent symptoms
        - Fluconazole 200 mg x 1, then 100 mg qd x 13 days. Check LFTs if h/o of HELLP/ Preeclampsia/liver disease. Ensure patient’s complete medication list is in EMR for drug interaction assessment.
        - Not improved after 7-10 days?
          - Reculture milk and nipples for yeast and bacteria. Reevaluate latch, pump use. Consider alternative diagnoses
          - Laboratory evidence of persistent yeast?
            - Check CBC, LFTs. Fluconazole 400 mg x 1, then 200 mg qd x 13 days. Neutropenic precautions.
Glossary
Asbill’s Sign: Pink lacy capillary pattern
Crisco: Regular shortening used in cooking, used as barrier for sensitive skin and dermatitis
QST: Quantitative Sensory Testing
Medical grade honey: Irradiated honey to facilitate wound healing
Shower Sign: Cold air hitting breasts when getting out of shower is painful, pain in frozen food section of grocery store or when opening the freezer,
Towel Sign: Touch of a towel or dress is excruciating
Yeast screen: highly sensitive microbiology assay for yeast – order to r/o ductal candida

References