Approved by Quality & Patient Safety Committee
16/7/15

MASTITIS AND BREAST (LACTATIONAL) ABSCESS – READMISSION FOR TREATMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Effective management of a woman admitted with mastitis and/or a breast abscess

2. PATIENT

- A woman within six weeks postpartum readmitted with a diagnosis of lactational mastitis and/or a breast abscess and her baby(s)

3. STAFF

- Medical, nursing and midwifery staff

4. EQUIPMENT

- Dressing pack
- Water for irrigation / normal saline sachets
- Sterile gloves
- Yellow top sterile container
- Bacterial swab (if required)

5. CLINICAL PRACTICE

- Refer to Appendix 1 and Appendix 2
- Advise CMC Lactation Services of admission
- Attend routine admission procedures including completion of sticker Appendix 3
- Obtain breast milk sample for quantitative breast milk culture and sensitivities from **both** breasts
    - Explain procedure and give handout Appendix 4 to woman and gain verbal consent
    - Follow option 1 or option 2 on Appendix 4
    - Transport to Pathology immediately with request for microscopy, culture and sensitivities
- Arrange diagnostic ultrasound if breast abscess is suspected or mastitis is not resolving after 48 hours of antibiotics
- Consult the Breast Surgical Team if abscess diagnosed
- Obtain abscess specimen:
    - Explain procedure and gain verbal consent
    - Dip tip of swab into open abscess site to coat with exudate
    - Seal and label
    - Send to Pathology with request for microscopy, culture and sensitivities
- Contact Obstetric RMO/Breast Surgeon with pathology results once known
- Discuss with Clinical Nurse Consultant Infection Control if results indicate the presence of a methicillin-resistant microorganism (MRSA) or Group B Streptococcus

Provide support with chosen feeding method:

- Advise woman to continue breastfeeding / expressing during this time as weening will increase the duration and severity of infection
- Encourage adequate rest, fluids and a nutritious diet
- Provide woman with continuation chart to self-record baby's feeds if continuing to breastfeed
- Provide woman with expressing equipment if unable to successfully attach baby on affected side
- Apply warmth to the affected breast before feeds and cold compresses or cabbage leaves (depending on the woman's preference) after feeds
- Provide the woman with support with weaning should she decide to cease breastfeeding
    - Provide relevant written information
    - Apply cold compresses or cabbage leaves (depending on the woman's preference) and express only for comfort
    - Demonstrate formula preparation, cleaning and storage

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Provide consistent breastfeeding/breast care advice (Appendix 5)

- **Advise mother that the most important step in treating mastitis is frequent and effective milk removal**
- Provide and discuss with woman the leaflet: Appendix 6
- Use positive language to support breastfeeding during this difficult period e.g. breasts soften (they do not empty), baby is active/sleepy (not angry/lazy)

Follow Up and Contacts

- Advise mother to see GP if no improvement within two days to assess specificity and duration of antibiotics prescribed.
- Ensure mother is aware of discharge breastfeeding support services:
    - Child and Family Health Breastfeeding Clinics
    - RHW Breastfeeding Support Unit
    - Australian Breastfeeding Association
    - Private Lactation Consultants
    - MotherSafe

Management/ Treatment of baby(s) accompanying their unwell mother

- Admit baby as a hospital patient (not a boarder)
- Commence baby on the Standard Neonatal Observation Chart (SNOC) if baby ≤28 days, or Standard Paediatric Observation Chart (SPOC) if baby >28 days
- Review, assess, triage and admit unstable/sick baby to the Newborn Care Centre (NCC) as required
- Monitor maternal compliance with antibiotic treatment and notify Neonatal Team if mother non-compliant

6. DOCUMENTATION

- Integrated Clinical Notes
- SNOC
- SPOC
- Breast Examination Sticker
- Medication Chart

7. EDUCATIONAL NOTES

Definitions/differential diagnosis

- **Engorgement:** generalised involvement of both breasts that are warm and flushed, often with a glassy translucent appearance and the nipple may be flattened. Engorgement can occur within 4-5 days postpartum or with sudden weaning
- **Mastitis:** inflammation of a segment of breast tissue, usually the result of a blocked milk duct that hasn't' cleared. Some of the milk banked up behind the blocked duct can be forced into nearby breast tissue, causing the tissue to become inflamed. Infection may or may not occur
- **Infective Mastitis:** if left untreated, mastitis can progress to an accompanying bacterial infection of the tissue. Common symptoms include local, wedge-shaped redness and tenderness, generalised malaise and fever. Mastitis can also occur in the antenatal period
- **Breast Abscess**: a local collection of pus formed when a bacterial infection (infective mastitis) has inadequate drainage
- The most common infective pathogen in infective mastitis is *Staphylococcus aureus.* Less commonly, *beta-haemolytic Streptococcus* or *Escherichia coli.* or community acquired methicillin-resistant *Staph aureus (MRSA)* may be the causative pathogen
- While laboratory investigations are not routinely performed for mastitis it is recommended that if the case is severe or unusual (for example unresponsive to first-line treatment) breastmilk culture and sensitivity testing should be undertaken

MASTITIS AND BREAST (LACTATIONAL) ABSCESS – READMISSION FOR TREATMENT cont'd

- A diagnostic breast ultrasound to identify any collection of fluid is indicated in cases of mastitis where there has been little response within 48 hours to appropriate management
- In the event of a diagnosis of abscess, culture and sensitivities are also required
- A thorough feeding assessment is required to ensure optimal attachment and milk transfer. Recording the baby's feeds will assist with the feeding assessment and identification of contributing factors
- Support the mother-infant relationship – encourage rooming in or have infant brought in for feeds
- Support the woman who has decided to wean with learning how to feed safely
- Washed cabbage leaves have been documented as a treatment to reduce swelling in cases of engorgement. There is currently insufficient evidence to recommend the widespread use of this particular treatment. However the application of cold cabbage leaves may be soothing, is unlikely to cause harm and is readily available.

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- NSW Health PD2010_058 Hand Hygiene Policy
- NSW Ministry of Health Policy Directive ' Breastfeeding in NSW: Promotion, Protection and Support'
- Suppression of Lactation or Weaning
- SESLHDPR/352 Mastitis (Lactational) Treatment 2014
- Sepsis in Pregnancy and Postpartum Period
- Patient with Acute Condition for Escalation (PACE): Management of the Deteriorating ADULT & MATERNITY Inpatient
- Antimicrobial Guideline Obstetrics

9. RISK RATING

- Medium

10. REFERENCES

1 Academy of Breastfeeding Medicine Clinical Protocol #4: Mastitis (Revised March 2014) *Breastfeeding Medicine* 9 (5) 239-243

2 Noonan M (2010) Lactational mastitis: recognition and breastfeeding support *British Journal of Midwifery* 18 (8): 503-508

3 Riordan J & Wambach K (2010) (Eds) *Breastfeeding and Human Lactation.* (4th Edition) Jones & Bartlett: Mass, USA

4 Mangesi L & Dowsell T (2010) Treatments for breast engorgement during lactation. *Cochrane Database of Systematic Reviews.* Issue 9

5 Amir LH, Forster DA, Lumley J, McLachlan H. A descriptive study of mastitis in Australian breastfeeding women: incidence and determinants *BMC Public Health 2007; 7:62*

6 Reddy P, Qi C, Zembower T, Noskin GA, Nolon M. Postpartum mastitis and community-acquired methicillin resistant Staphylococcus aureus *Emerg Infect Dis 2007; 13 (2): 298-301*

7 Amir L, Trupin S Kvist LJ Diagnosis and Treatment of Mastitis in Breastfeeding Women *Journal of Human Lactation 2014; 30; 1; 10-13*

8 Jahanfar S, Ng, CJ, Teng, CL Antibiotics for Mastitis in Breastfeeding Women *Cochrane Data Base Syst Rev.* 2013 Feb 28; 2:CD005458. doi: 10.1002/14651858.CD005458.pub3.

REVISION & APPROVAL HISTORY

Reviewed and endorsed Maternity Services LOPs 7/7/15
Approved Quality & patient Safety Committee 21/6/12
Obstetrics LOPs group May 2012

FOR REVIEW : JULY 2018

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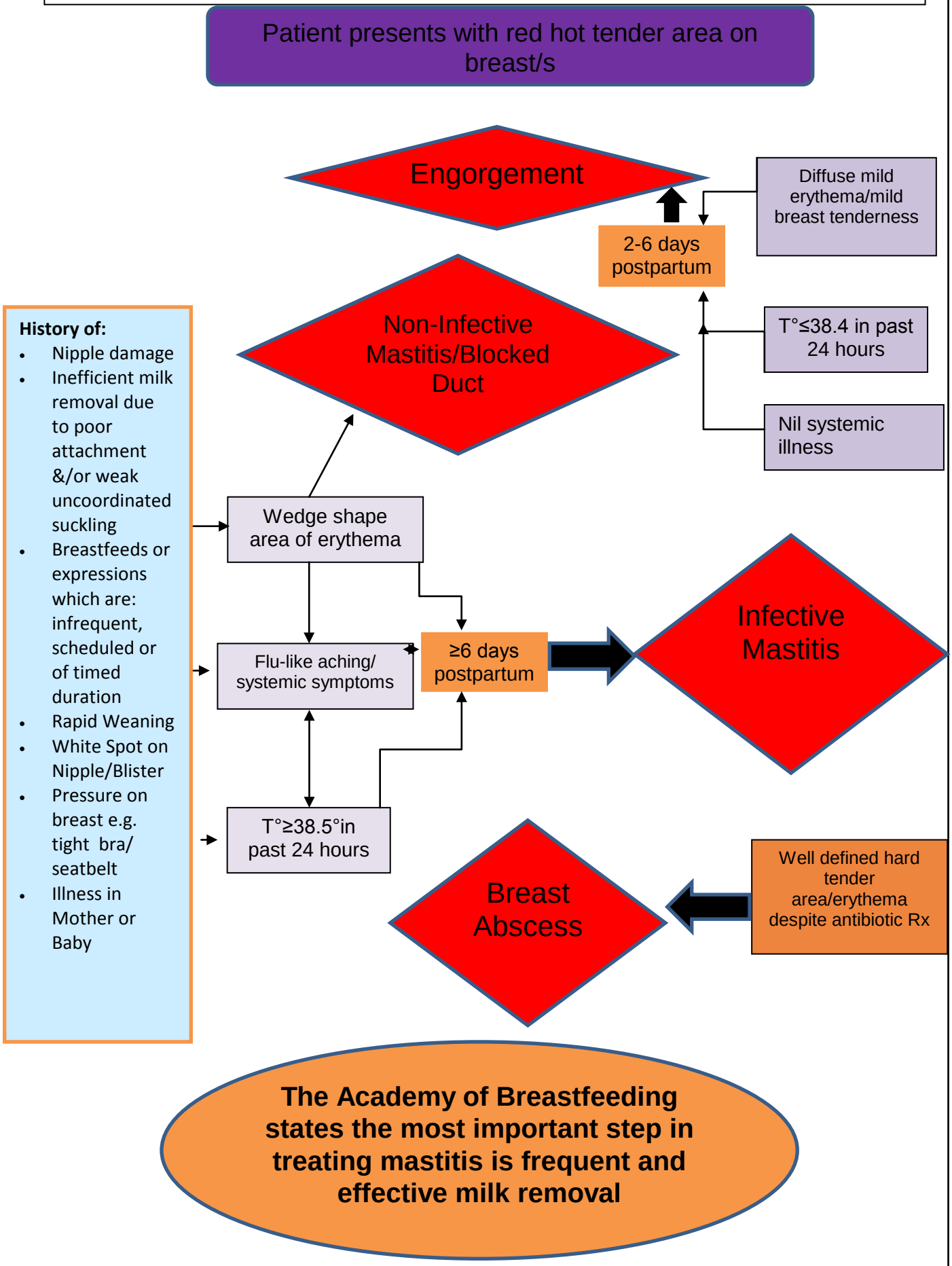
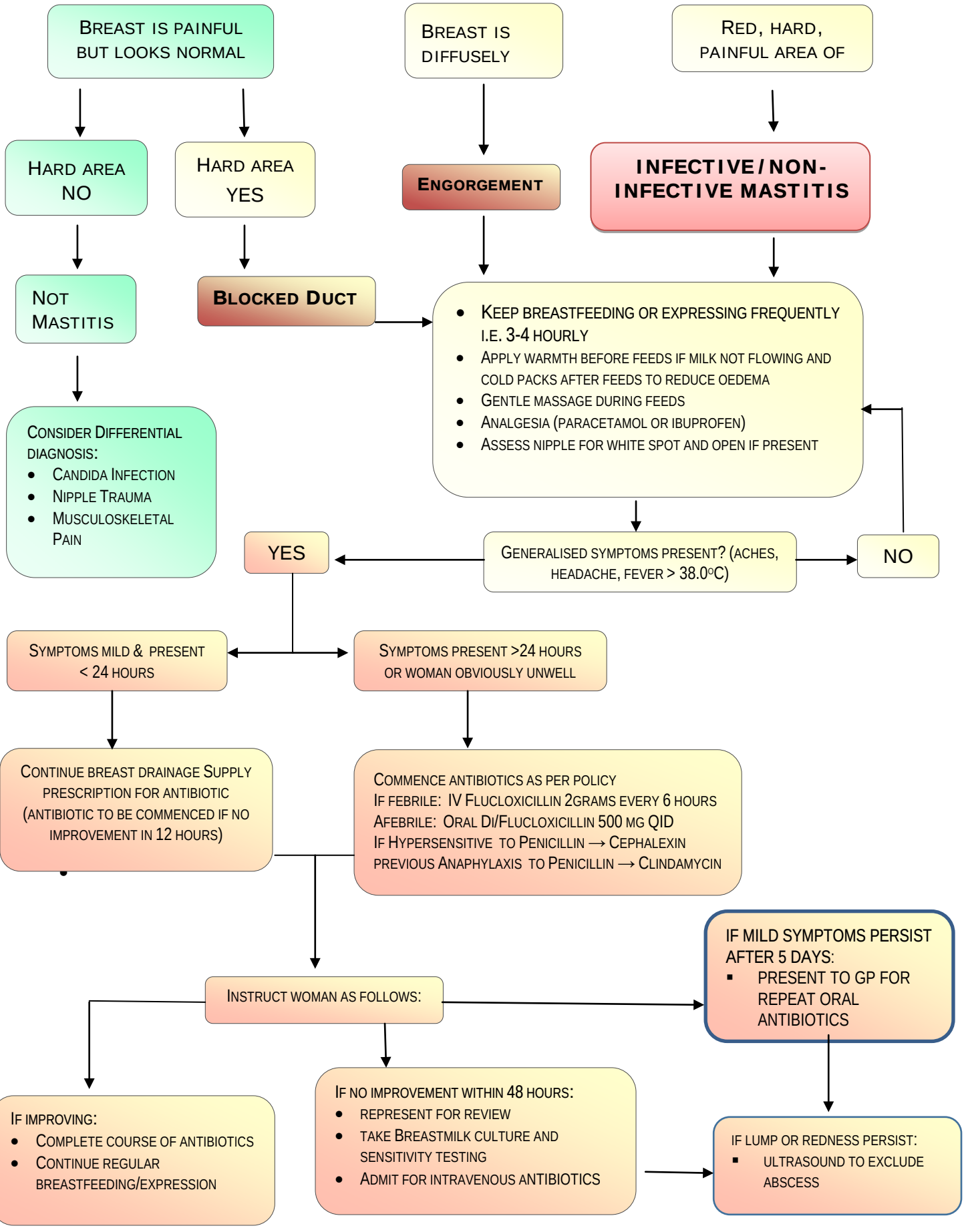
APPENDIX 1: Investigating Engorgement, Non-Infective Mastitis, Infective Mastitis and Breast Abscess



APPENDIX 2 ACKNOWLEDGEMENT: THE ROYAL WOMEN'S HOSPITAL MELBOURNE VICTORIA

Assessment and Management of Lactating Women Presenting with Breast Pain and Possible Mastitis



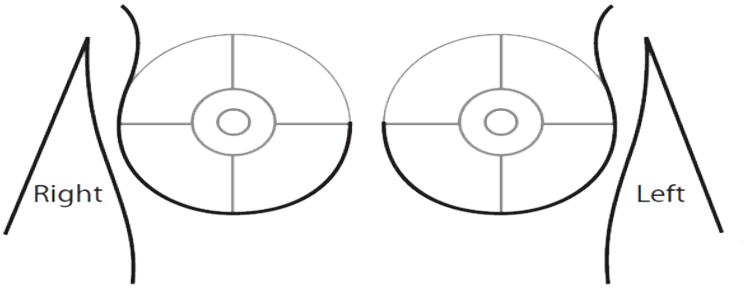
APPENDIX 3

Mastitis: Breast Examination: **to be completed once per shift**

Breasts: □soft □ full □ engorged □ other:

Nipples: □ inverted □ flat □ short □ protracted intact: □ (L) □ (R)

DAMAGE (pls draw & describe):□ (R) □ (L):



Erythema (pls draw above):□ No □Yes **Breast Tenderness:** □ No □ Yes **Breast Lumps**: □No □Yes

Maternal Fever > 37.5 □ Yes _____□No Oral antibiotics/I.V. antibiotics (pls circle)

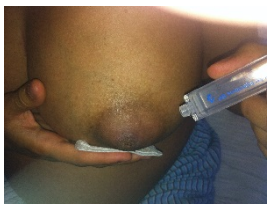
Feed Assessment: **Breast softening pc** □No □Yes **Assistance required:** □ No□ Yes

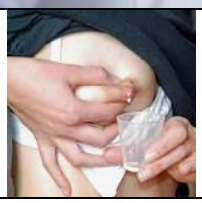
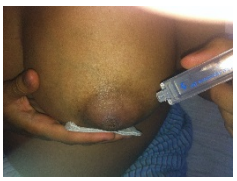
Expressing: □No□ Yes **Top-Ups:** □ No□ Yes: EBM/Formula/Both (pls circle) **Nipple Distortion pc:** □ No□ Yes

Other:

APPENDIX 4

PATIENT HANDOUT ON COLLECTING MIDSTREAM BREASTMILK CULTURE

OPTION I	
YOU WILL NEED : TWO CONTAINERS NORMAL SALINE OR WATER GAUZE	
Wash your hands	
Feed baby on affected breast for 5 minutes	
Wash your hands	
Clean breast / nipple / areola with water or normal saline	
Express and collect approximately two teaspoons into a new specimen container. Take care not to let your breast, nipple or fingers touch inside of specimen container	
Give sample to midwife/nurse immediately to label confirming you details are correct	
Breastmilk sample will be sent to Pathology immediately by your nurse / midwife. If delayed breastmilk sample must be refrigerated immediately	

OPTION II	
YOU WILL NEED : TWO CONTAINERS NORMAL SALINE OR WATER GAUZE	
Wash your hands	
Express one teaspoon of milk into one container (store this milk for baby)	
Clean breast / nipple areola with water or normal saline	
Express and collect approximately two teaspoons into a new specimen container Take care not to let your breast, nipple or fingers touch inside of specimen container	
Give sample to midwife / nurse immediately to label confirming your details are correct	
Breastmilk sample will be sent to Pathology immediately by your nurse / midwife. If delayed breastmilk sample must be refrigerated immediately	

Breastmilk samples are to be collected from both breasts, for all women

APPENDIX 5

ADVICE FOR INPATIENTS READMITTED FOR TREATMENT OF INFECTIVE MASTITIS:

- Wash hand/use antiseptic hand rub prior to feeding or expressing
- Apply warm pack/washer for 2 minutes prior to feeds
- If unable to feed →express, initially by hand, then using electric breast pump
- Gently massage and hand expression whilst standing/sitting under a warm shower can be helpful
- Gently massage the affected area towards the nipple before and during feeds/expressions
- Feed from affected breast 2 feeds in a row after admission. Express the other breast for comfort if the baby does not feed from it. Then alternate the starting breast with each feed.
- Ensure baby is deeply and asymmetrically attached with the breast softening during the feed. If the baby is unable to fully soften the affected breast, assist to hand or pump express (most import in the initial 48 hours after admission)
- Avoid putting pressure on the breast either with tight clothing or with finger when breastfeeding.
- Aim to position baby with his/her chin pointing towards the affected area
- If pain is inhibiting milk ejection reflex (letdown), begin feeding on the unaffected side, and switch breasts as soon as letdown occurs
- If breast engorgement is inhibiting letdown, either hand express the nipple/areola to soften &/or try reverse pressure softening. The aim is to push fluid in the tissue under the nipple and areola further back into the breast, to relieve the pressure. To do this, apply pressure with 2-3 finger of each hand placed felt at the side of and close to the nipple and hold for 1-3 minutes. Or, use all fingertips of one hand around the nipple and push in, holding for 1-3 minutes, until the tissue softens.
- Apply washed, cold, bashed cabbage or a cold pack after a feed
- Wake baby for a feed, if breasts are full and uncomfortable
- Reinforce normal breastfeeding patterns every 2-3 hours, 8-12 feed in 24 hours. Breasts should be either fed from and/or expressed 4th hourly or sooner
- Encourage rest as much as possible. Visitors, apart from main support person, are to be discouraged
- Encourage adequate fluid intake

APPENDIX 6

Mastitis

Health
South Eastern Sydney
Local Health District

Causes, prevention, treatment

WHAT IS MASTITIS?

Mastitis is inflammation of the breast tissue that can be caused by an engorged breast or a blocked duct.

A red, lumpy, painful area on the breast is an early sign and mastitis can develop quickly if the milk is not removed.

Signs and symptoms

- Chills/fever
- Joint aches and pains
- Flu-like symptoms.

Your breast becomes:

- Painful with pink/red areas
- Hot
- Swollen.

Possible causes

- Incorrect positioning and attachment to the breast.
- Nipple damage (grazes or cracks).
- An engorged or over-full breast.
- Infrequent feeding or a change in the pattern of feeds, including when weaning.
- Pressure on the breast. This could be from a tight bra or finger pressing into the breast during a feed.
- Favouring one breast.
- Scheduling of breastfeeds, limiting sucking time.

When treated early, more serious infections can be prevented.

AVOIDING MASTITIS

- Wash your hands before handling your breasts or nipples.
- Position and attach your baby to the breast correctly. The nipple may look slightly stretched after the feed but should not be squashed or flattened.
- Make sure the breast you feed from first is soft and comfortable before feeding from the other side.
- If your baby feeds on one side only, you may need to express some milk from the other side for comfort only.
- Gently feel your breasts for lumps or tender areas before and after a feed.
- If you find a lump or tender area, gently massage towards the nipple before and during feeds.
- Use different feeding positions such as underarm or cradle hold. Place your baby's chin towards the fullest area of the breast during feeds.
- If you become unwell, feel your breasts for lumps and look for redness (using a mirror can be helpful) – refer to the Signs and Symptoms section.
- If you feel pain when breastfeeding or think you may have mastitis, seek help from your Midwife, Child and Family Health Nurse, Lactation Consultant (IBCLC) or Australian Breastfeeding Association Counsellor.

MANAGEMENT OF MASTITIS

The most important step in treating mastitis is frequent and effective milk removal.

- To help empty your breasts, offer the affected side first. Express the other breast for comfort if your baby does not feed from it.
- Your baby may need to be woken to feed.
- If unable to feed, hand express or use a pump to soften the breast.
- Make sure your baby is positioned and attached correctly and do not limit sucking time.
- Gently massage the affected area toward the nipple before and during feeds. A drop of olive oil on the breast may help prevent skin friction.
- Point your baby's chin to the affected area during feeds.

- A warm pack can be used just before feeds to encourage milk flow.
- Cold packs after and between feeds may help with pain relief and swelling reduction.
- It is important to rest and ask for help at home.
- Consider short term use of pain relief such as paracetamol or ibuprofen, as directed.

If the problem does not get better within 12-24 hours or you suddenly feel very ill, contact your doctor. Antibiotics may be needed.

USE OF ANTIBIOTICS

- The current recommendations are Flucloxacillin (preferred) or Cephalexin (if allergic to penicillin).
- These antibiotics can be used safely when breastfeeding.
- Two full courses of antibiotics (10-14 days) MUST be completed to minimise re-occurrence.
- Antibiotic treatment can sometimes cause vaginal thrush. If symptoms develop, treatment will be needed.
- Take extra care with hand washing.

Breastfeeding is generally very safe for babies during mastitis if you receive and complete the recommended antibiotic treatment.

In the rare instance that your baby seems unwell or has a fever, you should seek prompt medical attention.

Contacts

- Your local Maternity Unit.
- Your Child and Family Health Centre.
- Australian Breastfeeding Association Helpline Ph: 1800 686 268, 7 days a week, or visit www.breastfeeding.asn.au
- MotherSafe (Medications in Pregnancy & Lactation Service) Ph: (02) 9382 6539 or 1800 647 848 if outside the Sydney Metropolitan area.
- For a Lactation Consultant (IBCLC) www.lcanz.org/find-a-consultant.htm
- After-hours telephone advice lines are listed in your baby's *Personal Health Record* (Blue Book).

References

Australian Breastfeeding Association https://www.breastfeeding.asn.au/bf-info/common-concerns-mum/mastitis
Eat for Health, NHMRC Infant Feeding Guidelines for Health Workers 2012.

South Eastern Sydney and Illawarra Shoalhaven Local Health Districts, July 2014.