Aneurin Bevan University Health Board

Prevention and Management of Lactational Mastitis and Breast Abscess

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.

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Contents:

1. Introduction/Overview

Mastitis, meaning inflammation of the breast, is a common complication of lactation which can be infectious or non-infectious. Mastitis is described as a 'spectrum' condition, ranging from mild inflammation, to infection, abscess and sepsis (Mitchell *et al*., 2022)

Most women will experience varying degrees of engorgement following the commencement of copious milk production, commonly between 48- and 72-hours following birth. This is a normal physiological process and is not commonly associated with inflammation. During this time, women should be educated about the signs of inflammation and how to manage this at home, alongside symptoms of concern and when to seek medical help.

Inflammation is most commonly caused by ineffective milk removal from the breast. Mild inflammation is usually self-limiting and with prompt management can be successfully treated to prevent the onset of more serious complications of mastitis such as sepsis, abscess formation and tissue necrosis.

3. Aims/Purpose

The purpose of this guideline is to provide clear guidance to all staff caring for anyone with lactational breast inflammation/infection, in order to offer prompt treatment of the condition

4. Objectives

This guideline will improve outcomes for all lactating women who experience mastitis. Prompt, standardised treatment will result in a reduced risk of more serious complications of mastitis which have a lasting effect on the patient's quality of life.

5. Scope

This guideline applies to all health care professionals caring for lactating women within Aneurin Bevan University Health Board.

The guideline uses the term 'women' throughout. This should be taken to include people who do not identify as women but who have given birth and are lactating.

6. Roles and Responsibilities

It is the responsibility of all services within ABUHB caring for lactating women, to implement this guideline to ensure all health care professionals are made aware of the appropriate care and treatment for those with breast inflammation and infection

7. Care guidance

7.1 Definition

Engorgement is common following the onset of copious milk production. As the breasts fill up with milk, there is an increased blood flow and the breasts will feel full, heavy and sensitive. If not managed appropriately this can lead to inflammation.

Mastitis is a painful inflammatory condition which may or may not be infectious. It is associated with ductal narrowing due to oedema, often caused by hyperlactation or inadequate milk removal (NICE, 2023).

Breast abscess is a severe complication of delayed or inadequate treatment of mastitis (Wilson-Clay and Hoover, 2022) and is defined as a collection of pus caused by infection.

7.2 Symptoms

Mastitis can often have a rapid onset of symptoms. These include

- Moderate to severe engorgement
- A painful lumpy area of the breast
- Red hot wedge-shaped area of breast
  In dark skin tones, redness may present as darkening of the skin
- Sudden onset of flu like symptoms

It is not possible to distinguish between infectious and non infectious mastitis. Be suspicious of infectious mastitis if

- There is visible trauma to the nipple
- 12-24 hours of conservative measures have not seen an improvement in symptoms
- Acutely unwell with pyrexia and tachycardia

Women who have a history of a recent episode of mastitis, or worsening symptoms, should be investigated for breast abscess. Symptoms of a breast abscess include

- An area of the breast which has hardened
- Skin discolouration, blistering or peeling
- Distorted nipple shape
- Moveable lump close to surface of the breast

7.3 Management

In order to reduce the risk of mastitis escalating, it is vital that initial engorgement is managed promptly at home. At the onset of engorgement:

- A full breastfeeding assessment (appendix 1) by a midwife, health visitor, or infant feeding support worker should be performed to ensure adequate milk transfer
- Support given with positioning and attachment to ensure adequate milk transfer
- Consider gentle hand expression to soften the breast tissue if baby is struggling to latch due to engorgement
- Responsive feeding should be discussed and to ensure feeds are not being purposely spaced out/delayed, as this can cause milk stasis leading to inflammation
- It is crucial that milk is removed frequently, a minimum of 8 times in 24 hours – either with effective feeding or expressing

When mastitis develops and inflammation is present, the above management is recommended if symptoms are mild and have been present <24h, alongside the following:

- It is essential that the woman continues to feed/express from the effected breast, failure to do this may lead to development of an abscess – however, there should not be an attempt to "empty" the breast via overstimulation as this can increase inflammation
- Be aware due to inflammation, ductal narrowing may result in less milk output
- Use of cold compress to reduce inflammation
- Use of ibuprofen 400mg TDS to reduce inflammation
- Written information about mastitis should be given (appendix 2)

If the woman feels acutely unwell and contacts GP/triage for further advice, or the above measures have not improved symptoms within 12-24 hours:

- Commence antibiotic therapy PO, however if systemically unwell, consider intravenous (IV) therapy. Refer to ABUHB MicroGuide for specific medication advice: Microguide Viewer - Viewer

- If there is history of MRSA, seek advice from microbiologist
- Consider sending milk sample for culture if no improvement of symptoms within 48 hours of commencing antibiotic therapy

For women who are not breastfeeding:

- If the woman has never breast fed, and mastitis occurs with onset of copious milk production, advise against stimulation. Encourage reducing inflammation with cold compress and ibuprofen as above. If the woman is very uncomfortable, small amounts of gentle hand expressing for comfort may help alleviate pressure and discomfort
- If mastitis occurs as a result of abrupt cessation of breastfeeding, advice as per usual management, advise reducing stimulation gradually

It is important that whilst a woman is an inpatient in hospital with mastitis that her baby stays with her, to enable continued feeding and adequate drainage of the breast. If this is not possible, or inadequate feeding is observed, a hospital grade pump should be provided (available from ward B3 ext. 23980)

When a breast pump has been loaned from B3, ward staff should document the date and location of the loan on the B3 Breast Pump Directory available on Sharepoint.

7.4 Referral

An abscess may have developed if the woman presents with a rounded, hardened or persistently raised area. If an abscess is suspected, prompt referral to the general surgeon on call for review, alongside urgent referral to the breast team via CWS is required.

7.5 Recurrent infection

In the case of recurrent episodes of mastitis/abscess, or worsening symptoms despite above management, refer to breast team for consideration of differential diagnosis, and discuss antibiotics with microbiology.

8. Reporting and additional support

When a woman has been readmitted to hospital with mastitis, a DATIX should be completed and a referral to the infant feeding lead via Badgernet should be made to ensure ongoing support. Referrals to the

infant feeding lead can be made via Badgernet or via email on abb.infantfeeding@wales.nhs.uk .

9. Further Information Clinical Documents

Royal College of Obstetricians and Gynaecologists (RCOG), (2012). Bacterial Sepsis following Pregnancy. Bacterial Sepsis following Pregnancy

Mitchell, K. *et al.* (2022) Academy of Breastfeeding Medicine Clinical Protocol #36: The Mastitis Spectrum BFM-2022-29207-kbm-ver9-Mitchell_2P 360..376 (bfmed.org)

NICE (2023) Mastitis and breast abscess Mastitis and breast abscess | Health topics A to Z | CKS | NICE

BMJ Best Practice (2023) Mastitis and Breast Abscess Mastitis and breast abscess.pdf (bmj.com)

10. Equality

Equality impact assessment completed

11. Audit

Auditing the effectiveness of this guideline will be in the form of notes audit, alongside datix reports and referrals to abb.infantfeeding@wales.nhs.uk

12. Review

This guideline will be reviewed every 3 years, or sooner if best available evidence changes.

13. References

Royal College of Obstetricians and Gynaecologists (RCOG), (2012). Bacterial Sepsis following Pregnancy. Bacterial Sepsis following Pregnancy

Mitchell, K. *et al.* (2022) Academy of Breastfeeding Medicine Clinical Protocol #36: The Mastitis Spectrum BFM-2022-29207-kbm-ver9-Mitchell_2P 360..376 (bfmed.org)

NICE (2023) Mastitis and breast abscess Mastitis and breast abscess | Health topics A to Z | CKS | NICE

BMJ Best Practice (2023) Mastitis and Breast Abscess Mastitis and breast abscess.pdf (bmj.com)

Wilson-Clay, B., and Hoover, K. (2022) The Breastfeeding Atlas, 7th edition

14. Appendices

Appendix 1

Breastfeeding assessment tool

How you and your midwife can recognise that your baby is feeding well						*This assessment tool was developed for use on or around day 5. If used at other times:
What to look for/ask about	√	√	√	√		**Wet nappies:** Day 1-2 = 1-2 or more in 24 hours Day 3-4 = 3-4 or more in 24 hours, heavier Day 6 plus = 6 or more in 24 hours, heavy
Your baby: has at least 8 -12 feeds in 24 hours*						
is generally calm and relaxed when feeding and content after most feeds						
will take deep rhythmic sucks and you will hear swallowing*						**Stools/dirty nappies:** Day 1-2 = 1 or more in 24 hours, meconium Day 3-4 = 2 (preferably more) in 24 hours changing stools
will generally feed for between 5 and 40 minutes and will come off the breast spontaneously						
has a normal skin colour and is alert and waking for feeds						
has not lost more than 10% weight						
Your baby's nappies: At least 5-6 heavy, wet nappies in 24 hours*						**Sucking pattern:** Swallows may be less audible until milk comes in day 3-4 Feed frequency: Day 1 at least 3-4 feeds After day 1 young babies will feed often and the pattern and number of feeds will vary from day to day. Being responsive to your baby's need to breastfeed for food, drink, comfort and security will ensure you have a good milk supply and a secure happy baby.
At least 2 dirty nappies in 24 hours, at least £2 coin size, yellow and runny and usually more*						
Your breasts:						
Breasts and nipples are comfortable						
Nipples are the same shape at the end of the feed as the start						
How using a dummy/nipple shields/infant formula can impact on breastfeeding						
Date						**Care plan commenced: Yes/No:**
Midwife's initials						
Midwife: if any responses not ticked: watch a full breastfeed, develop a care plan including revisiting positioning and attachment and/or refer for additional support. Consider specialist support if needed.						

Appendix 2

Information leaflets for parents

MASTITIS and BREASTFEEDING

"I was surprised by how suddenly I felt ill. We went to a wedding and I only missed one feed. Within a couple of hours I felt fluey and achey. My GP was reluctant to prescribe antibiotics, saying they were often not needed if I kept feeding. I also took ibuprofen tablets which helped me cope. I was surprised how well the self-help worked and that I never needed a prescription. I felt very miserable and depressed when I had the symptoms, wondering whether breastfeeding was worth all this – but once I felt better I remembered how good it feels"

Mastitis means **inflammation** of the breast.

The first sign of mastitis is a swollen usually painful area on the breast. On darker skin tones there might be a darkening of the skin and on lighter skin tones this might be visible as a red area on the breast. However, it is important to note that there could be no visible change in skin colour at all. The inflammation and swelling is not always a sign of infection (WHO, 2000). Harmful bacteria are not always present: antibiotics may not be needed if self-help measures are started promptly. Very rarely mastitis can develop into a more serious condition which needs urgent hospital admission and IV antibiotics (RCOG, 2012).
You may get mastitis when milk leaks into breast tissue from a blocked duct. The body reacts in the same way as it does to an infection – by increasing blood supply. This produces the inflammation.

The Signs of Mastitis

- A localised area in the breast which is painful to the touch, often in the outer upper area. Some mums might notice a change of colour or a red area on their breast.
- A lumpy breast which feels hot to touch
- The whole breast aches and may appear swollen and skin may be reddened or darker, depending on skin tone.
- Flu like symptoms - aching, increased temperature, shivering, feeling tearful and tired (Jahanfar et al., 2013). This feeling can sometimes start very suddenly and get worse very quickly

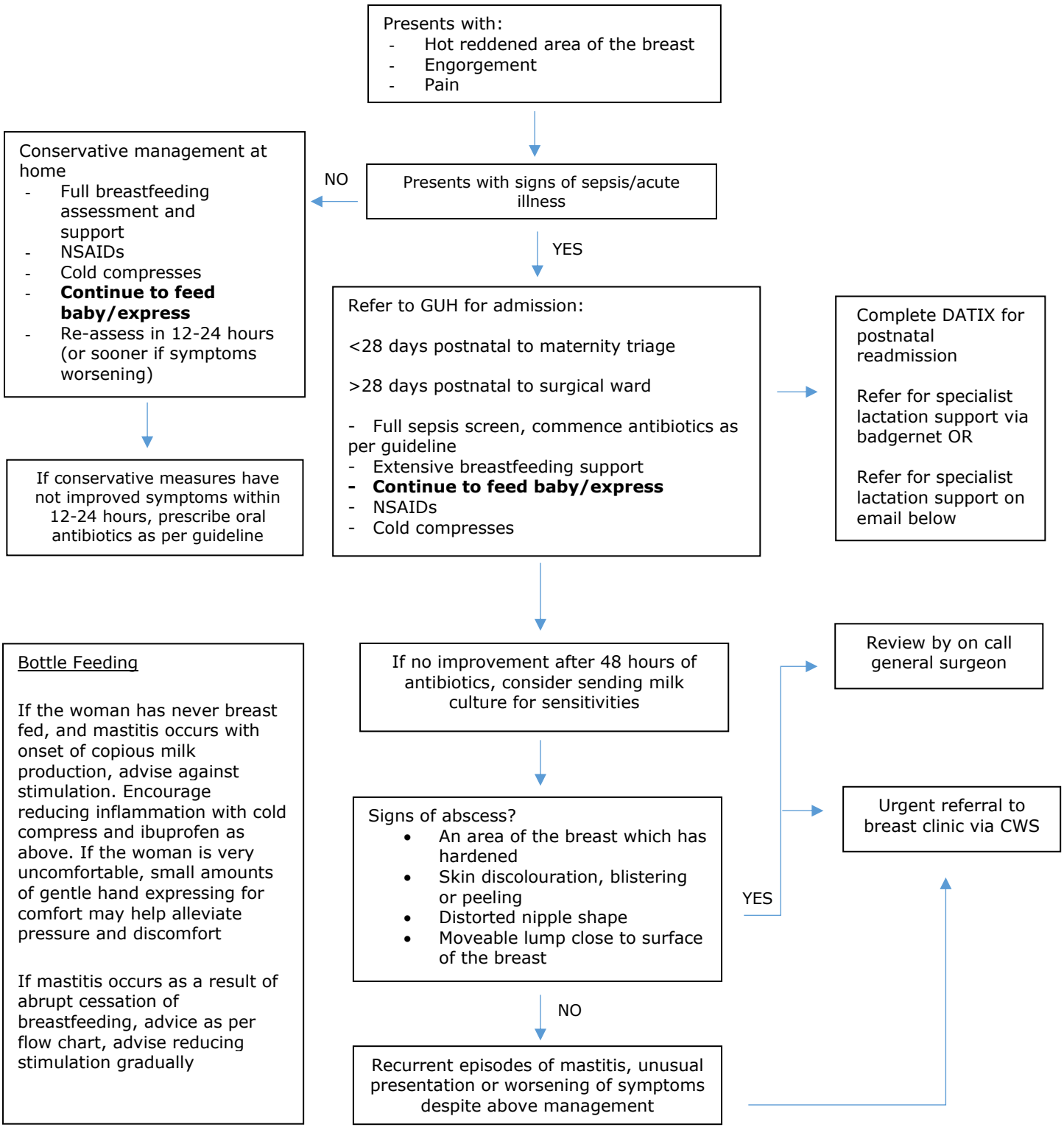
NB You may not have all of the above signs during mastitis.

Prevention of mastitis

- Try to avoid suddenly going longer between feeds. If you are intending to reduce breastfeeding, cutting down gradually reduces the risk of mastitis.
- Make sure your breasts don't become overfull
- Avoid pressure on your breast from clothing and fingers
- Start self-help measures at the first sign of any lumpy or swollen areas on your breast

Appendix 3

Management of Lactational Mastitis and Breast Abscess Pathway



Advice can be sought from the infant feeding lead midwife abb.infantfeeding@wales.nhs.uk