# Mastitis and Breast Abscess in the Lactating and Non-Lactating Women

<table>
<thead>
<tr>
<th>Version</th>
<th>3</th>
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| Approval/ADOPTION | Maternity Guideline Committee  
Date: July 2019 |
| Date for Review | Date: July 2022 |
| Distribution | Lead Midwives for Maternity  
Lead Midwife for Risk  
Lead Consultant for Risk  
Consultant Midwives  
Director of Midwifery & Gynaecology  
Matron Gynaecology  
The Baby Friendly Guardian  
Head of Surgical  
Head of Emergency Department  
Trust Intranet |
| Related Policies | Infant Feeding Policy, NICE Guidelines,  
Breastfeeding Mothers Who Are Admitted to Hospital  
Sepsis Guideline |
| Author/Further Information | Sue Taylor-Infant Feeding Lead |
| This Document Replaces | Version 2 |

## Amendments

<table>
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<th>AMENDMENTS (No more than three per policy version)</th>
<th>DATE</th>
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### OBJECTIVES

1. **To Support Healthcare professionals to:**
   - Reduce the incidence of mastitis occurring with good infant feeding practices.
   - Refer antenatally to the Infant feeding Team for additional and specialist 1-1 service if a past history in a previous antenatal/postnatal period. See Appendix 1.
   - Promptly recognise early clinical signs of mastitis and breast abscess
   - Ensure appropriate management of mastitis and referral to specialist services for treatment if required.
   - Urgently refer a women with a suspected breast abscess or malignancy for investigation and management both ante/postnatal.
   - Early recognition and management of sepsis in the women who has mastitis/Breast abscess.
   - Referral pathway, care and follow up if readmitted.
   - Follow up and give appropriate advice on prevention of recurrence and supporting breastfeeding.

### DEFINITION

2. **Mastitis** is an inflammatory condition of the breast, which may or may not be accompanied by infection. Mastitis commonly occurs in 10-33% of lactating women but can also occur in 5-9% of non-lactating women. There is no evidence that breast size is related to mastitis.

3. **Mastitis can be classified as:**
   - **Non-infectious:** Breast inflammation due to a non-infectious and / or idiopathic cause. Milk stasis is the primary cause.
   - **Infectious:** infection of breast tissue through a lactiferous duct or a traumatised nipple

4. **Breast abscesses develop in 3-11% of women with mastitis,** with a reported incidence of 0.1-3% in lactating women, most commonly occurs as a severe complication of mastitis and is a painful collection of pus, usually caused by a bacterial infection. Other complications include sepsis, scarring and recurrent mastitis.

### CAUSES

5. **In lactating women the two principle causes are:-**
   - **Milk stasis:** The accumulated milk within the breast, causes an inflammatory response within the breast tissue, which if not resolved may progress to infective mastitis.
   - **Infection:** The most common organism in breastfeeding women is staphylococcus aureus, including strains of methicillin-resistant S. aureus (MRSA) if the infection was acquired in hospital.

6. **In non-lactating women,** the mastitis is usually accompanied with infection. The commonest organisms in this group are S. aureus, enterococci, and anaerobic bacteria i.e. Bacteroides spp and streptococci.
7. In non-lactating women the infection can be categorised in two groups:
   - Subareolar infection which is associated with periductal mastitis (the ducts under the nipple are damaged and become inflamed and infected). It is a benign condition which can affect women of all ages but is more common in younger women. Women who are smokers are at an increased risk of being affected by periductal mastitis, as substances in cigarette smoke can damage ducts behind the nipple. Nipple piercings can increase the chances of infection.
   - Peripheral non-lactating infection (less common). Has been associated with pre-existing conditions such as diabetes, rheumatoid arthritis, steroid treatment and trauma. Infections may occur as part of a condition known as granulomatous lobular mastitis (GLM), which is a rare inflammatory disease of the breast. Often there is no underlying cause.

8. A breast abscess is most commonly a severe complication of mastitis, but an abscess can occur without an episode of mastitis.

## PREDISPOISING FACTORS

9. **Mastitis: Lactating Women**

Milk stasis is usually the primary cause, this occurs when milk is not removed from the breast efficiently.

This can occur for a number of reasons, including:
   - Ineffective attachment of the baby at the breast. This can be because of:
     - the positioning of the mother leading to ineffective attachment of the baby at the breast, or
     - could be due to infant mouth abnormalities such as the presence of a cleft lip or palate, or a restricted frenulum (tongue tie) which can all affect milk transfer, and may lead to nipple trauma / damage which can be an entry point for bacteria.
   - Infrequent or missed feed which could be due to:
     - Painful nipples/breasts
     - Partial bottle feeding or changes in the feeding pattern i.e. rapid weaning from breast milk.
     - Use of a dummy or bottle-affecting the way the baby attaches to the breast.
     - Using a preferred breast, so allowing milk stasis in the other breast.
     - Maternal stress and fatigue
     - Pressure points on the breast from tight clothing such as a bra, a car seat belt or sleeping in a prone position.
   - Age is also a factor

See section on predisposing factors for mastitis in non-lactating women, which can be the same for lactating women.

10. **Mastitis: Non-lactating Women**

   - Smoking – main predisposing factor, as toxins in cigarettes can accumulate in the breasts and damage the milk ducts.
   - Other factors:
     - Nipple damage - eczema, nipple piercing, or Raynaud’s disease (restriction of
### Breast Abscess

**12.** Delayed, inadequate, or inappropriate treatment of previous mastitis episodes can be one of the main complications that lead to a formation of a breast abscess.

**13.** The predisposing factors for breast abscess include all the factors in both the lactating and non-lactating breast groups.

### Symptoms of Mastitis

**14.** Mastitis usually only affects one breast, and symptoms often develop quickly. The health professional must be aware that the signs and symptoms of non-lactational mastitis may also be similar to the signs and symptoms of breast cancer or a breast abscess.

**15.** Symptoms of non-infective mastitis can present with:
- A tender, red, swollen, and hard area on the breast, usually in a wedge shape
- A breast lump or area of hardness
- Fever and / or malaise

**16.** Clinically it is not possible to distinguish between non-infectious and infectious mastitis. Other symptoms to be considered in infectious mastitis is:
- A nipple trauma that appears infected
- In any lactating women that symptoms do not improve (or worsen) after 12-24 hours despite effective milk removal and on-going breastfeeding support.
- The breast milk culture is positive.

### When to Suspect a Breast Abscess

**17.** A history of recent episode/s of mastitis
- High temperature but, this may not have subsided in a women who is on antibiotics for suspected infectious mastitis
- A painful, lump with swelling that is red and feels hot to touch.
- Noticeable swelling under the underlying skin

### PREVENTION, WHEN TO REFER AND FIRST LINE MANAGEMENT OF BREAST PAIN/MASTITIS/BREAST ABSCESS

| 18. | Antenatally: Prevention
|---|---
| History taking at Booking appointment, identifying any mother that has a history of: |  
| - Breast surgery i.e. Augmentation/Reduction. |  
| - Problems relating to feeding her last baby |  
| - History of Mastitis/Breast abscess |  
| - History of Raynaud’s disease of the nipple, skin conditions on the breast or near the nipple area such as Psoriasis, eczema, nipple piercings etc. |  
| - Current uninvestigated breast lump |  
| - Nipple piercing |  
| - Previous history of breast cancer/pagets disease |

| 19. | A referral to Infant feeding team for triage and appropriate onward care planning is required for women with any of the above. (Appendix 1)

| 20. | Referral
|---|---
| An immediate referral to the GP is to be made, if the woman reports any signs/symptoms relating to breast pain/nipple discharge. |

| 21. | If clinically unwell, a referral to attend Emergency Department (ED) immediately must be made.

| 22. | The Infant Feeding Team to be contacted for any woman that has mastitis or Breast abscess diagnosed/treated. Esth.infantfeedingteam2@nhs.net

| 23. | Postnataly: Prevention
|---|---
| Identify any predisposing factors antenatally. See section 10.(Appendix 1) |  
| Ensure women have information throughout their pregnancy and postnatal period and that all staff practice as in the UNICEF BFI maternity standards and the trusts Infant feeding policy. |  
| Ensure good breastfeeding technique, enabling effective milk transfer and related information including hand expressing, exclusively breastfeeding and the avoidance of dummy use (see Infant Feeding Policy). |

| 24. | Referral and readmission postnatally
|---|---
| An immediate referral to the GP is to be made, if the woman reports any signs/symptoms relating to breast pain/nipple discharge. |  
| If clinically unwell, and there are signs of sepsis or breast abscess, a referral to ED immediately must be made. |  
| Where readmission is required, the mother and her baby should be admitted to the postnatal ward in a single room. If admitted to any other ward in the hospital please |
| 25. | Full breastfeeding assessments to be observed for each feed, especially in the first 24 hours. A written plan on the use of the electric breast pump and an experienced staff member to assess the correct size breast shield is being used. See Appendix 2 |
| 26. | An urgent review to a member of the Infant feeding Team at the first available opportunity. |
| 27. | On discharge to the CMW’s, a clear extended midwifery care plan can extend to 28 weeks postnatally if required to support the mother and breastfeeding. Follow up appointments with the Infant feeding team to be made at the breastfeeding clinics in Community. (Full breastfeeding assessments to continue in community as required and until the mother feels breastfeeding is established). |

**MANAGEMENT OF MASTITIS AND BREAST ABSCESS**

| 28. | **●** Reassure the woman that the pain and breast symptoms will return to normal following the appropriate treatment.  
**●** Advise an analgesia/anti-inflammatory such as Paracetamol or Ibuprofen and the application of a warm compress/or warm water to relieve the pain and discomfort in the breast and help milk flow.  
**●** Breastfeeding mothers should be encouraged to continue feeding if at all possible on both breasts, this is very important. An experienced member of staff to assess a full breastfeeding to ensure good positioning of the mother and effective attachment of the baby on the breast to allow effective milk removal and prevent further nipple damage. If the mother finds that breastfeeding is too painful, or the baby refuses to breastfeed from the affected side, advise the women to express her milk (by hand or with a breast pump) at least 8 times in a 24 hour period until she is able to resume breastfeeding directly from the breast. Inform the Infant feeding Team for further support. If the baby is feeding at the breast and the affected breast does not feel empty after feeding, advise the mother to express the remaining milk (By hand/pump).  
**●** If the mother wishes to stop breastfeeding after all the support is given, the midwife to give advice on stopping breast feeding alongside the advice from the Infant feeding team.  
**●** A clear history and a feeding assessment to be undertaken to identify and manage the predisposing factors (See section Predisposing factors for lactating and non-lactating women).  
**●** If symptoms continue for 12-24 hours or worsen despite effective milk removal the treatment as per cks guidance is an antibiotic course for 10-14 days (flucloxacillin if not pen allergics, or erythromycin/clarithromycin if penicillin allergic) to reduce incidence of recurrence/progression to abscess. |

Red Flag features:
Any one of the following, when infection is suspected, must trigger the Sepsis 6 pathway and immediate review by a doctor of ST3 level or above:
- Responds only to voice or pain / unresponsive
- Acute confusional state
- Systolic B.P ≤ 90 mmHg (or drop > 40 from normal)
- Heart rate > 130 per minute
- Respiratory rate ≥ 25 per minute
- Needs oxygen to keep SpO2 ≥ 92%
- Non-blanching rash, mottled / ashen / cyanotic
- Not passed urine in last 18 h / UO <0.5 ml / kg / hr
- Lactate ≥ 2 mmol / l
- Recent chemotherapy

Ensure appropriate advice on measures to prevent recurrence and if breastfeeding to be referred to the Infant Feeding Team to be followed up alongside the Community midwife.

If a recurrence of mastitis occurs or the symptoms become worse take a sterile collection sample of breast milk for microscopy, culture and antibiotic sensitivity.

Advise the mother to seek immediate medical advice if symptoms fail to settle, if temperature, signs of sepsis (rigrs, tachycardia, tachypnoea, ect) or immunosuppressed, this includes after 48 hours of antibiotic treatment.

Oral antibiotics if skin fissures, or symptoms fail to resolve after 12-24 hours of conservative management
- Flucloxacillin 500 mg four times a day for 10–14 days.
- If the woman is allergic to penicillin, prescribe either erythromycin 250–500 mg four times a day or clarithromycin 500 mg twice a day for 10–14 days.

**MANAGEMENT OF A SUSPECTED BREAST ABSCESS**

29. **An Urgent referral** to the G.P or ED. Advise lactating women to continue breastfeeding – refer to management of Mastitis and breast abscess.

30. If a mother is an inpatient and requires an ultrasound scan. The present process is that the woman is discharged and then the Dr contacts St Georges and the mother is sent to their ED department.

31. With all management of Mastitis /Breast abscess the most important management step with regard to the breast feeding women is frequent and effective milk removal from both breasts. **Red Flag features:**

- Any one of the following, when infection is suspected, must trigger the Sepsis 6 pathway and immediate review by a doctor of ST3 level or above:
  - Responds only to voice or pain / unresponsive
  - Acute confusional state
  - Systolic B.P ≤ 90 mmHg (or drop > 40 from normal)
  - Heart rate > 130 per minute
  - Respiratory rate ≥ 25 per minute
  - Needs oxygen to keep SpO2 ≥ 92%
  - Non-blanching rash, mottled / ashen / cyanotic
  - Not passed urine in last 18 h / UO <0.5 ml / kg / hr
32. **Breast milk cultures are not routinely for women with mastitis**, except in severe and recurrent episodes of mastitis, and where Infection is suspected. The women complains of a severe deep ‘burning’ breast pain (indicative of ductal infection).

33. The presence of bacteria in breastmilk does not necessarily indicate infection. Bacterial counts are not always reliable.

### PROCEDURE FOR COLLECTING A BREAST MILK SAMPLE IF CLINICALLY APPROPRIATE

34. Advise the women to:
   - Clean the nipple area of the affected breast
   - Express a small amount of milk by hand and then discard (to avoid skin contamination)
   - Express a further amount of milk into a sterile container, avoiding touching the inside of the container with the nipple or hands
   - Health professional to send to Laboratory

### EQUALITY IMPACT ASSESSMENT

35. All policies/guidelines will require the completion of an impact assessment. This is to be completed by the author of the document and attached when the document is submitted for ratification. If the answers to any of the questions are yes you will need to complete a full equality impact assessment. If there is a negative impact that cannot be resolved you will need to complete a Trust Risk Assessment form assessing the risks involved. If you require any general advice please contact the staff in the Equality and Diversity Department in HR.

### REFERENCES


[https://www.unicef.org.uk/babyfriendly/support-for-parents/mastitis/](https://www.unicef.org.uk/babyfriendly/support-for-parents/mastitis/)


WHO  2003 The Global Strategy for Infant and Young Child Feeding
Child Feeding).

WHO 2000 Mastitis Causes and Management. Department of Child and Adolescent Health and
Mastitis Causes and Management

NICE 2018 https://cks.nice.org.uk/mastitis-and-breast-abscess#!scenario
Guidance for referral for additional and specialist services to support breastfeeding women

Antenatal

Required standard
Meaningful conversation

- Mothers of unborn babies with identified medical challenges are offered additional tailor made information to help meet their individual needs.
- Mothers are empowered to develop a relationship with her unborn baby

Required standard
Information & Sign posting

- Families are offered classes which addresses responsive parenting and feeding
- Families are provided with contact details of relevant sources of support (websites/APPs and phone numbers)
- All women are offered information about hand expressing and storing their colostrum

Additional breastfeeding support/referral by appointment

- Women with complex medical needs should be invited to attend an antenatal colostrum harvesting session with one to one support as appropriate. i.e
  - Diabetic
  - Raised BMI
  - Multiple pregnancy
  - Congenital anomaly
  - Past history of Mastitis/Breast abscess

Specialist referral to infant feeding by email

- Some families will need to access other specialist services – i.e. counselling
- Some women will require additional specialist feeding support to overcome maternal or unborn infant challenges (such as previous history of breastfeeding difficulty, breast surgery, diabetes, cleft lip/palate, trisomies). Babies that are in the risk category of hypoglycaemia.
- De-briefing after a previous difficult delivery/breastfeeding experience with consultant midwife/Infant feeding Lead
Appendix 1b

Guidance on referral for additional and specialist services to support breastfeeding women

**Postnatal**

### Required standard

**Getting breastfeeding off to a good start**

- Mothers with additional challenges are enabled to achieve effective breastfeeding, including support with P&A, expressing and responsive feeding. BF assessments are discussed with the mother for her empowerment and early identification of problems. The required standard is at least twice in the first week and at 10-14 days (HV) to ensure effective feeding.
- Where problems are identified a plan will be agreed with the mother, documented and regularly reviewed and revised.

### Available support

**Routine care**

- Mothers are informed of face to face and telephone support/helplines/voluntary organisations available when they leave hospital
- Mothers are provided with up to date, evidence based and relevant written info and informed in writing of local services to support continued breastfeeding
- Families are given the opportunity to discuss safer sleeping/effects of dummy use and the link with responsive parenting/feeding
- Families are aware of social support, and services offering support with basic problem solving and routine BF assessments
- Professionals are able to refer to specialist support with more complex challenges

### Additional services to support continued breastfeeding

- Mothers are welcome to attend drop in breastfeeding support at any time
- Any member of staff who encounters a complex breastfeeding problem can contact the local infant feeding lead and/or signpost to specialist services – such as the GP or tongue tie service – see Trust guideline and referral pathway
- Babies with static weight on 2 or more occasions

### Specialist service

- Persistent or complex problems * Also see guideline for the breastfeeding mothers who are admitted to hospital (or accompanying a sibling whilst breastfeeding)
- Referrals can be made via the Infant feeding team email for mothers who are unwell and unable to independently feed their baby.
- Infant feeding lead will transfer care back to the responsible health professional once the specialist input is no longer required
- De-briefing after a previous difficult breastfeeding experience with infant feeding lead
- Re-admission for significant weight loss and wt loss guideline followed-Infant feeding Team to be contacted by Trust mobile for all readmissions
- Review and treatment of tongue-tie-as per tongue tie referral process
- Some mothers experiencing challenges with feeding will require a referral to GP/paediatrician/dietician
- Early referral to the IFT of any mother in the community or has been readmitted with Mastitis or a breast abscess
Appendix 2

Badgernet Breastfeeding Assessment Tool

Feeding Assessment

- Date and Time: 23 May 19 at 12:39, Postnatal Swedes, 2 days
- Type of Feeding: 
  - Breastfeeding
  - Artificial Formula

Your Baby (Breastfeeding):
- Has at least 8-12 feeds in 24 hours: Yes, No
- Breastfeeding and your baby will hear swallowing: Yes, No
- Will generally feed between 3 and 40 minutes and will come off the breast spontaneously: Yes, No
- Has a normal skin colour and is alert and waking for feeds: Yes, No
- Has lost more than 10% weight: No, Yes, N/A

Your Baby’s Nappies:
- At least 5-6 heavy, wet nappies in 24 hours: Yes, No
- At least 2 dirty nappies in 24 hours, at least 2 coin size, yellow and runny and usually more: Yes, No

Your Breasts:
- Breasts and nipples are comfortable: Yes, No
- Nipples are the same shape at the end of the feed as at the start: Yes, No

Additional Notes

Additional Notes
# EQUALITY IMPACT ASSESSMENT SCREENING FORM

In order to carry out an effective impact assessment it is important to examine all available data and research so that any adverse impact on disability can be properly assessed.

<table>
<thead>
<tr>
<th>1. Name of function, strategy, project or policy</th>
<th>Guideline for Mastitis and Breast Abscess in the lactating and non-lactating woman</th>
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<tbody>
<tr>
<td>2. Name, job title, department, and the telephone number of staff completing the assessment form</td>
<td>Susan Taylor. Infant Feeding Lead. Women &amp; Children’s Health. Tel: 07975232374</td>
</tr>
<tr>
<td>3. What is the main purpose and outcomes of the function, strategy, project or policy?</td>
<td>To identify, prevent and treat Mastitis and Breast Abscess in the lactating and non-lactating woman. Clear referral pathway to prevent and/or treat mastitis to prevent Breast abscess</td>
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<tr>
<td>4. Associated frameworks e.g. national targets</td>
<td>NICE, UNICEF Baby Friendly Initiative, Breastfeeding Network, DH</td>
</tr>
<tr>
<td>5. List the main activities of the function, project/policy (for strategies list the main policy areas)</td>
<td>To identify, prevent and treat Mastitis and Breast Abscess in the lactating and non-lactating woman. To enable breastfeeding, to initiate and continue.</td>
</tr>
<tr>
<td>6. Who could be affected by the strategy/ project/ policy?</td>
<td>Women and Newborn Babies, Midwives, Obstetricians, Paediatricians, GPs.</td>
</tr>
<tr>
<td>7. What consultation with relevant users on this project/policy/service has taken place</td>
<td>Maternity Guideline Group, circulated to all Consultant Obstetricians, Microbiology</td>
</tr>
<tr>
<td>8(a) Have you involved your staff in taking forward this impact assessment?</td>
<td>Yes</td>
</tr>
<tr>
<td>8(b) How have you involved the staff</td>
<td>Discussed in Infant feeding Training/GP/Breastfeeding network</td>
</tr>
<tr>
<td>9. What aspects of the policy, including how it is delivered, or accessed, could contribute to inequality?</td>
<td>None</td>
</tr>
<tr>
<td>10. What different needs, experiences or attitudes are particular communities or groups likely to have in relation to this policy?</td>
<td>N/A</td>
</tr>
<tr>
<td>11. If there are gaps in your consultation and research, are there any experts/relevant groups that can be contacted to get further views or evidence on the issues. Please list them and explain how you will obtain their views.</td>
<td>No</td>
</tr>
<tr>
<td>12. In the light of all the information detailed in this form; what practical actions would you take to reduce or remove any adverse/negative impact.</td>
<td>N/A</td>
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Please now assess the impact on all of the protected groups