Recognising and managing mastitis

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Mastitis is a concern for breastfeeding women and their doctors. GPs want to know which antibiotics to prescribe and when to start and stop them. Families may worry about the safety of antibiotics for the baby, whether mastitis will recur and whether the mother needs to stop breastfeeding.

The woman's experience of mastitis

About one in five new mothers experience mastitis. The woman's breast is painful, hot and swollen and they feel unwell with fever and rigors.[1] Many women do not know what is happening to them and are anxious. Some women say, 'I just thought I was tired', and other women jump to the conclusion that 'something is wrong with my breast – it must be cancer'. Women often fear that they might have to stop breastfeeding, or that any medication may be harmful to their baby. They may also be apprehensive about the risk of recurrence (Figures 1 and 2).

The GP's experience of mastitis

Mastitis is a common postpartum presentation to GPs. It is most common in the first eight weeks after a woman has given birth. Mastitis means inflammation of the breast, and GPs recognise the triad of pain, redness and swelling as typical of inflammation, but areas of uncertainty for GPs in treating mastitis include:

- when to prescribe antibiotics
- which antibiotics are the most appropriate
- how long a course of antibiotics should be
- the safety of antibiotic use for a woman who is breastfeeding
- whether the mother should be advised to stop breastfeeding and begin feeding her baby with infant formula.

Diagnosis of mastitis

A diagnosis of mastitis can be made if a woman has symptoms that include breast pain (a constant ache), an area of the breast that is hard or swollen (often with overlying redness of the skin), and systemic symptoms such as fever or rigors (Flowchart). If the breast pain is described as intermittent or sharp, mastitis is unlikely.[2] If only a painful lump is present, the cause is likely to be a blocked duct, which can be managed by the removal of milk (usually accomplished by increasing the frequency of feeds or expressing the affected breast, accompanied by gentle breast massage).[3] If nipple pain only is present, it may be due to nipple damage, nipple vasospasm or dermatitis. If fever and rigors are present without any breast signs or symptoms, other causes should be investigated, such as a urinary tract infection or endometritis. A careful medical history should be taken from the patient.

Mastitis is not always due to infection. A mild version of mastitis occurs when the breast becomes overfull and milk leaks from the alveoli and ducts into the connective tissue causing the tenderness and swelling that is characteristic of inflammation. Some women's breasts become engorged when their milk first 'comes in' a few days after birth. This can also occur later if there are long intervals between feeds, for example if the baby sleeps longer than usual or is unwell. Engorgement can be managed by applying cool compresses to the breast, gentle light massaging towards the axilla (to improve lymphatic drainage) and taking NSAIDs such as ibuprofen.

When to prescribe antibiotics

The management of mastitis has changed very little in the past 30 years. When a woman who is febrile and has a visibly damaged nipple presents with a large area of the breast red and hard, it is likely that bacteria have entered the ductal system of the breast and an infection is present. Antibiotics are recommended when symptoms of mastitis have been present for 24 hours or more, but if nipple damage is visible then infection is likely and antibiotics

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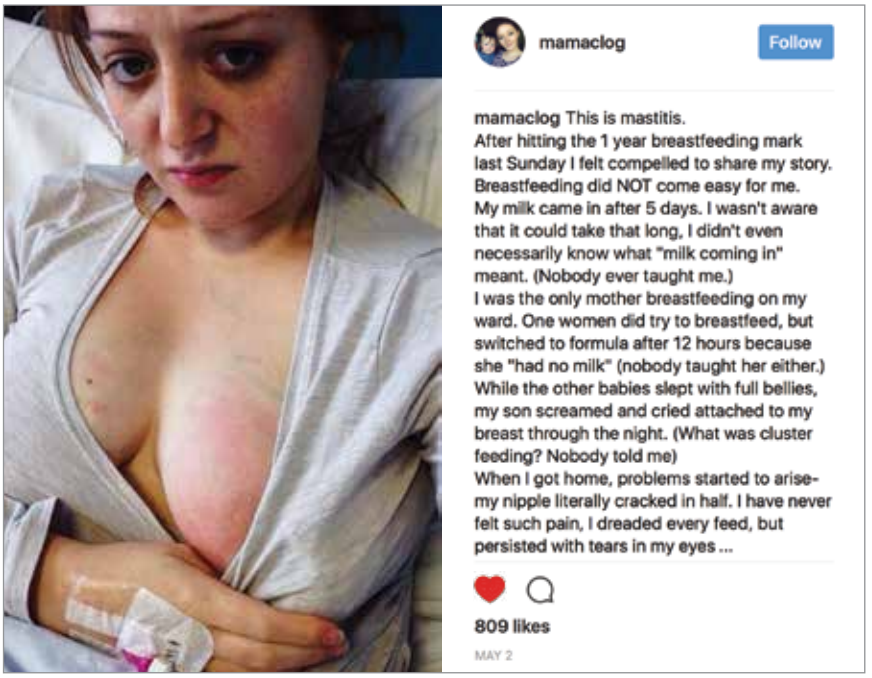


Figure 1. A social media post describing a new mother's experience of mastitis. The post attracted more than 800 'likes' and many comments from women with similar experiences.
Courtesy Remi Peers.

Figure 2. The mother in Figure 1 commented, 'Despite the roadblocks that can arise at the start of breastfeeding, it does get easier, and it is possible to go on to have a happy and healthy breastfeeding relationship after experiencing mastitis.'
Courtesy Remi Peers.

may be commenced immediately.[4,5] The risk of not treating a bacterial infection is that a breast abscess may develop, as the usual causative organism is *Staphylococcus aureus*, which commonly causes abscess formation.[6] New mothers are susceptible to infections in the postpartum period because of pregnancy-induced changes in their immune function.[7]

Antibiotic prescribing in Australia has long been guided by the *Therapeutic Guidelines: Antibiotic*.[8] The recommended antibiotic for mastitis is flucloxacillin 500 mg four times a day for five days, or longer if required. Women who are allergic to penicillin can be prescribed cefalexin 500 mg four times a day (or clindamycin if they have a severe penicillin allergy).[8] Using lower doses or other antibiotics could increase the risk of abscess development.

GPs should advise women diagnosed with mastitis to continue feeding their baby (or to express milk) to reduce the risk of an abscess developing.[9] They should also prescribe NSAIDs and warm compresses for the affected breast before feeds to assist milk flow, and cold compresses after feeds.[10]

When to investigate further or refer

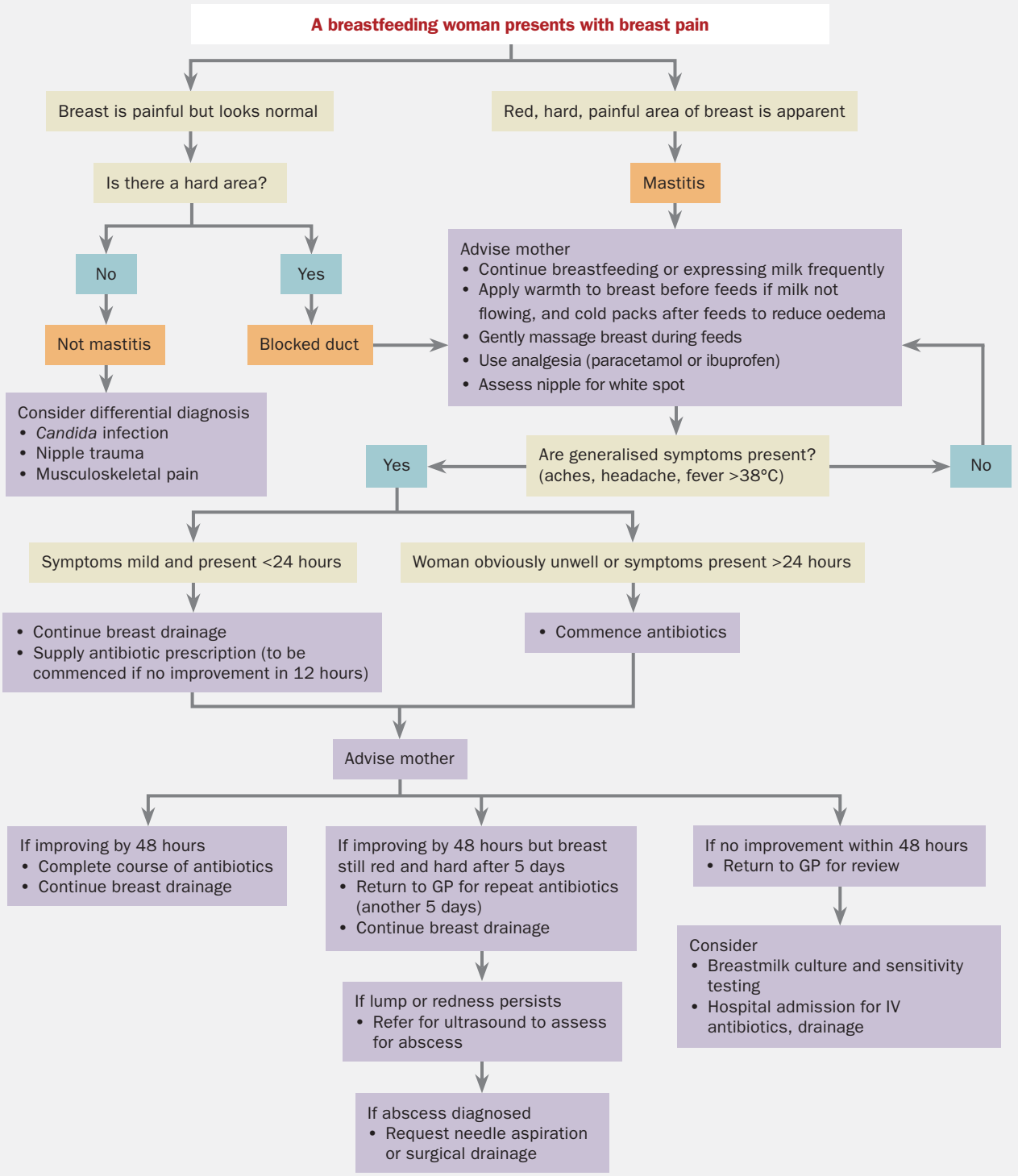
Symptoms should improve within 48 hours; if they do not, a milk culture is needed to determine if methicillin-resistant *S. aureus* (MRSA) is present.[5] The nipple and areola should be cleaned with a sterile water wipe and some milk should be expressed. The first few drops of milk should be discarded, then a small amount of milk should be collected in a sterile jar for culture and sensitivity testing. In communities where MRSA is common, milk culture should be done routinely.[5,11]

If breast pain and a breast lump persist after the course of antibiotics, a diagnostic ultrasound is useful to rule out an abscess.[12] Most lactational breast abscesses are managed by aspiration with ultrasound visualisation; several aspirations may be needed, but this is preferable to open drainage.[12] If inflammation occurs slowly over weeks rather than hours or days, inflammatory breast cancer should be considered.[12] If a new lump develops during lactation, it will need further investigation and/or referral to a surgeon.

Advice to women with mastitis

Women with mastitis should be encouraged to continue breastfeeding if possible, because the baby can usually drain the breast more efficiently than a pump. If a woman is concerned that the sudden appearance of a breast lump could indicate breast cancer, they can be reassured that a typical episode of mastitis is very unlikely to be confused with a malignancy. Many families also need reassurance that antibiotics are only prescribed when necessary and that they are safe for their breastfed baby or child. The breastfed infant or child is exposed to only very small amounts of antibiotic.[13] Occasionally, if the mother is taking a course of antibiotics, a breastfed infant or child may develop temporary diarrhoea, but this usually improves once the antibiotic course is finished.[14]

ASSESSMENT AND MANAGEMENT OF LACTATING WOMEN PRESENTING WITH BREAST PAIN AND POSSIBLE MASTITIS



Adapted from Appendix 1 of Royal Women's Hospital clinical guidelines: Mastitis and breast abscess, with permission from the Royal Women's Hospital, Melbourne.

MASTITIS: RESOURCES FOR GPS

- **Royal Women's Hospital clinical guidelines: Mastitis and breast abscess**
  https://www.thewomens.org.au/health-professionals/clinical-resources/clinical-guidelines-gps
- **Academy of Breastfeeding Medicine clinical protocol #4: Mastitis**
  http://www.bfmed.org/Media/Files/Protocols/2014_Updated_Mastitis6.30.14.pdf
- **Drugs and lactation database: LactMed**
  https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm
- **Royal Women's Hospital patient fact sheet: Mastitis**
  https://www.thewomens.org.au/health-information/breastfeeding/breastfeeding-problems/mastitis
- **Maya Bolman and Ann Witt: The basics of breast massage and hand expression (video)**
  https://vimeo.com/65196007

Conclusion

GPs can inform all pregnant women and new mothers how to recognise the early signs and symptoms of mastitis and how to begin early self-care. GPs should take the time to take a good history from breastfeeding women with breast symptoms and examine the breast to ensure they make the correct diagnosis. The *Therapeutic Guidelines: Antibiotic* provides details for best practice in managing mastitis.[8] Most medicines are compatible with breastfeeding.[15] Most women recognise the importance of breastfeeding for their baby's health and for their relationship with their baby, and want to continue breastfeeding. GPs can provide support for the mother to continue breastfeeding. An explanation of the likely cause of the mastitis episode can be reassuring for the family. MT

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