Lactation mastitis

Hazel Hughes provides a brief summary of infective and non-infective lactation mastitis and a recommendation for the prevention, identification and treatment is provided.

Lactation mastitis is an inflammatory condition, associated with milk production and most commonly experienced in the early postpartum weeks. Reported incidences vary between 10–33%, with approximately 10% of cases requiring antibiotic therapy (Deshpande, 2007; World Health Organization (WHO), 2000).

Mastitis is a significant concern to health professionals as its occurrence often leads to the discontinuation of breastfeeding, and early weaning. This may be due to the extreme discomfort experienced by the woman or because of a false belief that discontinuation is a necessary component of recovery.

**Types of mastitis**

Generally, mastitis is defined as infective or non-infective (*Figure 1*). While definitions are useful in categorising the mastitis, often signs and symptoms can overlap and, as such, are not reliable in making a definitive diagnosis early in its manifestation.

**Preventing mastitis**

Given the importance of breastfeeding for both infant and maternal wellbeing, it is essential that health professionals are able to support women not only through diagnosis but also in identifying risks and potential preventative measures (Lawrence and Lawrence, 2005).

Although Lawrence and Lawrence (2005) advocate preventative measures, health professionals must work within the evidence base. However, many methods that are used for prevention are anecdotally-based. A 2010 Cochrane review by Crepinsek et al does support these 'anecdotal/ learned experience-based' type of interventions and so they become credible.

Breastfeeding education and support is widely recognised as the first-line in prevention. This is because mastitis is, in part, caused by inadequate emptying of the breast, thus optimising the teaching of breastfeeding techniques to include attachment and positioning may help to prevent milk stasis. This will also
help to prevent sore, cracked nipples and the potential creation of an ideal entry portal for *Staphylococcus aureus*, *S. albus* or *S. epidermidis* infection, the most common organisms identified in mastitis. As such, the need for continued support from health professionals is undoubtedly of significance in reducing risk factors (Spencer, 2008).

It must be acknowledged that it can be difficult to distinguish mastitis due to blockage or engorgement from infective mastitis, the boundaries can often be indistinct.

**Treatment**

Treatment for both infective and non-infective mastitis focuses on three main principles:

- Effective milk removal
- Analgesia (using anti-inflammatories)
- Antibiotic therapy.

While there is evidence that effective milk removal and analgesics are successful in reducing the symptoms of mastitis (Jahanfar et al, 2013), the value of antibiotic therapies is less well defined. Despite this, the National Institute for Health and Care Excellence (NICE, 2013) Clinical Knowledge Summaries recommend the use of antibiotic therapies as a first-line approach. However, in a review of the literature, Jahanfar et al (2013) concluded that there is currently insufficient evidence to confidently evaluate the effect of antibiotic therapies on mastitis, and have called for urgent research into
the their use in the future. This is particularly pertinent, as if comparisons are made between the findings in a study by Jahanfar et al (2013) and with results from the literature considering the use of cold packs then conclusions of non-maleficence associated with a degree of beneficence could present an argument of greater benefit than that of prescribed antibiotics (Mangesi and Dowswell, 2010).

In their Cochrane review, Ferdenez et al (2008), identified that natural treatments, including: hand expression to ensure breasts are empty; alternating warm and cold compresses applied directly to the breasts and breast massage, had the potential to be effective and more acceptable to women for whom the transference of antibiotics through breast milk to their infant can be a cause of concern. These natural methods appeared to be preferable to conservative methods of milk removal and simple analgesia.

Conclusions
Health professionals are acutely aware of the benefits of breastfeeding and currently strategies to increase initiation and maintenance are of primary consideration. Women need support and empowerment to exclusively feed their infant for 6 months in line with WHO recommendations.

Mastitis can have a profound impact on the continuation of breastfeeding. As such, health professionals need to be able to demonstrate interprofessional working and a sound knowledge of the condition. An ability to make a differential diagnosis has the potential to ensure that, where required, women receive antibiotics that are appropriate and where not, alternative therapies can be offered.

It is essential that women are supported to maintain lactation during the period of mastitis, whether infective or not. Women should be encouraged to recognise that breastfeeding will not only relieve the discomfort, it will also help to clear the infection from the breast.


**Mastitis care pathway**

### Prevention
Provide women information perinatally about the importance of positioning, latching and hygiene of the nipple when breastfeeding to help prevent milk stasis, engorgement and cracked nipples, which could lead to *Staphylococcus aureus*, *S. albus* or *S. epidermis* infection.

### Diagnosis

<table>
<thead>
<tr>
<th>Non-infective mastitis</th>
<th>Infective mastitis</th>
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<tbody>
<tr>
<td>(caused by milk stasis/associated with engorgement)</td>
<td>(caused by <em>Staphylococcus aureus</em> and <em>S. albus</em> or <em>S. epidermis</em> infection)</td>
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<tr>
<td>- Onset is gradual</td>
<td>- Lump</td>
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<tr>
<td>- Mild, localised pain</td>
<td>- Red swollen area with tracking in the capillaries</td>
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<tr>
<td>- There is little evidence of systemic infection with little or no elevation of the temperature.</td>
<td>- Pyrexia, and flu-like symptoms</td>
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<td>- Burning pain in breast that may be continuous, or may only occur breastfeeding</td>
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<td>- Nipple discharge, which may be white or contain streaks of blood</td>
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### Management

**Conservative:**
- Check differential diagnosis
- Breastfeeding support—positioning
- Anti-inflammatory analgesia
- Feed on demand to prevent engorgement
- Empty breast on feeding
- Rest
- Hot compress to move milk, cold compress between feeding for relief

If after 24/48 hours there is no improvement, seek antibiotic therapy