CLINICAL PRACTICE GUIDELINE

Mastitis: management of

This document should be read in conjunction with the Disclaimer

Aims

- To provide healthcare providers with the appropriate information to prevent/ manage mastitis effectively.
- To ensure thorough drainage of the affected breast.
- To nurture a mother's confidence in her ability to breastfeed.
- To prevent breast abscess, a complication occurring as a result of poorly managed mastitis.

Background

Mastitis is an inflammation of the breast that may or may not involve a bacterial infection. It occurs if milk stasis remains unresolved and the protection provided by the immune factors in the milk and the inflammatory response of the breast are overcome[1]. Part of the breast becomes inflamed, red, swollen, hard and very painful. The woman feels unwell with a fever and general myalgia (muscle pain) or flu like symptoms[2].

Predisposing Factors

- Poor positioning / attachment /sucking of baby
- Damaged nipples- especially if colonised with Staphylococcus Aureous
- Incomplete draining of the breast
- Unresolved engorgement
- Ankyloglossia
- Abrupt weaning
- Scarring causing incomplete drainage
- Restrictive bra
- Maternal stress and fatigue

Midwifery Management

1. Prompt medical consultation: EBM taken for culture and sensitivity then commence appropriate antibiotic therapy[3]..
2. Antibiotic therapy should be given for 10 to 14 days to help prevent recurrence.
3. The majority of women with mastitis can be managed in the home either with oral antibiotics or with IV antibiotics under the Hospital in the Home program.
4. Non-steroidal anti-inflammatory (Ibuprofen or Naproxen) will reduce the inflammatory process.

5. Analgesia as required.
6. Commence variance sheet ‘MR 261.16 Management of Mastitis’.
7. Baby to keep breastfeeding or mother to continue to drain the breasts with a hospital grade electric pump.
8. Feed from the affected breast first and ensure the baby drains the breast completely before offering the second side.
9. Correction of positioning / attachment problems by Lactation Consultant or experienced midwife. If nipples are sore or damaged women may prefer to rest them and express until healed.
10. Change feeding position i.e. baby's chin pointing towards affected area.
11. Check expressing cup size if expressing as she may need a wider bore shield (27mm, 30mm or 36mm Personal Fit™ shield).
12. Express the affected breast after each feed to ensure as complete as possible breast milk removal. Hospital grade electric pump is preferred.
13. Ensure only a gentle even pressure is exerted on the breast tissue by the shield of the breast pump.
14. Use a single pumping action only.
15. Avoid long intervals between feeds or expressions- no dummies or complimentary feeds.
16. Relaxation measures to encourage "let down" may be necessary.
17. Cooling agents (cool packs) or a cool, damp cloth, to be applied before expressing and after feeds.
18. Gentle stroking of the breast towards the nipple before and during the breastfeed.
19. Avoid restrictive clothing / bra.
20. Mother will need rest, adequate fluids and help as required at home or in hospital.
21. Refer to Lactation Consultant for review. The Lactation Consultant will explore the reason for mastitis and provide information for the mother re preventative measures including lifestyle.
22. Failure to improve after 2-3 days may indicate:
    - Incorrect antibiotic – check sensitivities of the breast milk culture. Change the antibiotic therapy as appropriate.
    - Possible breast abscess- refer the mother for diagnostic ultrasound.
23. If a women requests to wean when mastitis is present advise her to:
    - express until the mastitis resolves, then
    - Gradually decrease the number of expressions/day over a period of several days until the breasts only become full after 24 to 48 hours – then cease.

24. If the woman chooses to wean despite the above advice then antibiotic cover will be necessary until all lumps and inflammatory processes have resolved. In these circumstances Cabergoline may be prescribed to suppress the lactation.

As mastitis may be caused by poor infant feeding and possibly reduce maternal milk supply, assess infant to ensure thriving. If any concerns, have baby reviewed by paediatrician for possible admission.

Medical Management of Mastitis

Staphylococcus aureus remains the most common infectious cause. Adequate specimens are essential. **Always** send a milk sample to microbiology for culture and sensitivity. This is especially the case if there is recurrent mastitis as staphylococcal resistance to the agents listed below (e.g. due to MRSA) is increasing in prevalence. Most patients will respond to the following oral regimens. Continued breast feeding or milk expression (manually or by pump) from the infected breast should be continued to ensure effective milk removal. There is no evidence of risk to the healthy, term infant of continuing breastfeeding.

Flucloxacillin 500mg orally, 6 hourly for 10 days.

For patients hypersensitive to penicillin (excluding immediate hypersensitivity) use: **Cephalexin 500mg orally, 6 hourly for 10 days.**

For immediate hypersensitivity to penicillin use:
Clindamycin 450mg orally, 8 hourly for 10 days.

Note: Flucloxacillin to be taken ONE hour before meals.

If **severe cellulitis** has developed, antibiotics should be given intravenously (IV).

For inpatients: use

Flucloxacillin 2g IV 6 hourly

or

Cefazolin 2g IV 8 hourly for patients hypersensitive to penicillin (excluding immediate hypersensitivity).

If immediate hypersensitivity to penicillin use:

Clindamycin 600mg IV 8 hourly

IV therapy to be given for typically 48-72 hours, then if substantial clinical improvement, change to oral treatment regimen as listed above (either of flucloxacillin or cephalexin or clindamycin) for ten days

For outpatient Hospital@Home; use

Cefazolin 2g IV 12 hourly for 48 hours, then if substantial clinical improvement, change to oral treatment regimen as listed above (either of flucloxacillin or cephalexin or clindamycin) for ten days.

Failure to improve after two to three days may indicate:

- Incorrect antibiotic: - Check sensitivities of organisms isolated from breast milk culture.
- Possible breast abscess: refer for diagnostic ultrasound. May require surgical drainage.

Discharge Planning

1. Give the woman the 'MR 261.16 Management of Mastitis' to continue at home.
2. Arrange breast pump loan.
3. Arrange a follow-up appointment at the Breastfeeding Centre.

Management in the Home (Referral to Hospital @Home)

The majority of women with mastitis can be managed in the home. Referrals to Hospital@Home are accepted 24 hours a day.

For further information on referral to Hospital@Home go to the attached link: http://www.silverchain.org.au/

The decision to refer care to Hospital@Home is based on the following:

Inclusion Criteria

- Confirmed diagnosis of Infective Mastitis. Failure or inability to take oral antibiotic therapy
- Client's Medical condition has been assessed as stable, has a clear diagnosis and prognosis and is at low risk of rapid deterioration.
- Over 13 years, suitable for adult dosing and not under the care of a Paediatrician.

Exclusion Criteria

- Co-existing medical conditions requiring hospital admission or complex multiple co-morbidities (e.g. Diabetes. Immunocompromised)
- Evidence of rapidly progressing infection or skin necrosis
- Evidence of impending septic shock (fever>38.5 or hypotension or tachycardia).
- Laboratory confirmation or suspicion for multi resistant bacteria (e.g. MRSA)
- Suspected or confirmed immediate hypersensitivity to penicillin or any hypersensitivity to cephalosporin.

Emergency Centre Care

Prior to transferring the woman's care to Hospital@Home it is essential to:

Complete referral form which is found at the silver chain web site (http://www.silverchain.org.au/)

- Obtain a pathology work up:
  - Sample of expressed breast milk is sent for microscopy, culture and sensitivity
  - If the temperature >38°C or rigors are present do a full blood picture and blood cultures

- Commence intravenous antibiotics. Ensure the woman also has a script for oral flucloxacillin.
- Notify the Breastfeeding Centre (a message may be left on the answering machine)
- Commence mastitis variance 'MR261.16 Management of Mastitis' and document an appropriate management plan. Give this to the woman.

General Measures

- **Antibiotics**:
  - Cephazolin 2g intravenously twice daily for 48 hours.
  - If afebrile and there is a decrease of erythema and pain in the breast change to flucloxacillin 500mg orally four times a day for at least 10 days.
- Rest and continue to breastfeed or express.

GP / Emergency Centre Review

- Review the patient after 48 hours of intravenous antibiotics if the woman is still febrile and the breast is very painful.
- Admit to hospital for further treatment if:
  - Extension of erythema and increasing pain in the breast despite adequate drainage and following the mastitis variance plan.
  - Social isolation – no other adult available at home for support.

Day Three

Emergency Centre to review expressed breast milk and blood cultures results to ensure correct antibiotic has been prescribed. If a change of antibiotic is required, Emergency Centre (EC) will inform the woman to come and collect the new prescription from EC.

Refer to the Breastfeeding Centre for a follow up appointment.

References

1. World Health Organisation. Infectious Mastitis. **Mastitis causes and Management**. Geneva: WHO; 2000. p. 16.
2. Breastfeeding Medicine. 2014. 9 (5) p239-243
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4. Fetherston C. Mastitis in Lactating Women: physiology or pathology? **Breastfeeding Review.** 2001; 9 (1): 5-12
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6. Breastfeeding Medicine. 2006. 1(1) p136-45.

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