CLINICAL PRACTICE GUIDELINE

Mastitis and breast abscess management

This document should be read in conjunction with the Disclaimer

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Aim

- To provide healthcare providers with the appropriate information to manage mastitis and breast abscess effectively

Key point

1. If a woman presents to the Emergency Centre (EC) for mastitis or breast abscess and requires transfer to another hospital, the woman needs to be assessed appropriately prior to transfer.

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. 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.

Predisposing factors

- Poor positioning / attachment
- Damaged nipples- especially if colonised with *Staphylococcus aureus*
- Incomplete draining of the breast
- Unresolved engorgement
- Inadequate / inappropriate treatment of previous mastitis
- Ankyloglossia
- Abrupt weaning
- Scarring causing incomplete drainage
- Restrictive bra / clothing
- Maternal stress and fatigue

Midwifery management

1. Prompt medical consultation: EBM taken for culture and sensitivity then commence appropriate antibiotic therapy.
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 intravenous (IV) antibiotics under the Home Hospital program.
4. Baby to keep breastfeeding or mother to continue to drain the breasts with a hospital grade electric pump.
5. Commence variance sheet ‘MR 261.16 Management of Mastitis’
6. Correction of positioning / attachment problems by experienced midwife. If nipples are sore or damaged women may prefer to rest them and express each feed until healed.
7. Cooling agents (cool packs) or a cool, damp cloth, to be applied before expressing and after feeds.

8. Non-steroidal anti-inflammatory (Ibuprofen or Naproxen) will reduce the inflammatory process.
9. Analgesia as required.
10. Gentle stroking of the breast towards the nipple before and during breastfeeds and when expressing
11. Feed from the affected breast first and ensure the baby drains the breast well before offering the second side.
12. Express the affected breast after each feed to ensure as complete as possible breast milk removal. Hospital grade electric pump is preferred.
13. Check expressing breast shield size, only the nipple should come into the funnel when expressing.
14. Avoid long intervals between feeds or expressing.
15. Avoid restrictive clothing / bra.
16. Mother will need rest, adequate fluids and help as required at home or in hospital.
17. Refer to Ward Lactation Consultant/ CMC for review.
18. 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. (see also Breast Abscess section below)
19. If a woman requests to wean when mastitis is present advise her to:
    - express until the mastitis resolves, then
    - to reduce the risk of developing a breast abscess, weaning should take place over several days where possible. The woman should gradually decrease the number of expressions/day over a period of several days. Once her milk supply is minimal then cease expressing
20. If the woman chooses to wean abruptly despite the above advice, then antibiotic cover will be necessary until all lumps and inflammatory processes have resolved. In these circumstances refer to Medical Officer to discuss pharmacological suppression of lactation.
21. 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.

Group B Streptococcal resistance to clindamycin is also increasing and a substantial proportion of *S. aureus* isolates are clindamycin resistant. Although most patients will be expected to respond to the following oral regimens, checking of susceptibilities is important as susceptibility cannot be assumed. 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.

Antibiotics

Flucloxacillin 500mg orally, 6 hourly for 10 days (taken ONE hour before meals)

- **For patients hypersensitive to penicillin** (excluding immediate hypersensitivity):
  - Cefalexin 500mg orally, 6 hourly for 10 days
- **For immediate hypersensitivity to penicillin use**:
  - Clindamycin 450mg orally, 8 hourly for 10 days

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

- **For inpatients:**
  - Flucloxacillin 2g IV 6 hourly

    OR
  - Cefazolin 2g IV 8 hourly **for patients with delayed type, non- severe hypersensitivity to penicillin**

  If immediate hypersensitivity to penicillin (as evidenced by urticaria, angioedema, bronchospasm or anaphylaxis or a history of other severe reactions such as DRESS syndrome or Stevens Johnson /toxic epidermal necrolysis syndrome):
  - Vancomycin IV - See Vancomycin monograph for dosing, or if organism with known susceptibly to clindamycin, use Clindamycin 600mg IV 8 hourly

  The KEMH microbiology service is available for telephone advice if required for severe or complex cases.

  More information on management of patients with a history of reactions to penicillin can be found by using the search term “antimicrobial hypersensitivity” in Therapeutic Guidelines: Antibiotic.

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

- **For outpatient (hospital in the 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 cefalexin or clindamycin) for ten days.

Failure to improve after two to three days may indicate:

- Incorrect antibiotic: Check sensitivities of organisms isolated from breastmilk 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 Home Hospital)

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

For further information on referral to Hospital@Home go to https://www.silverchain.org.au/wa/referrers/

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

Inclusion criteria

- Confirmed diagnosis of infective mastitis. Client's medical condition has been assessed as stable, has a clear diagnosis and prognosis and is at low risk of rapid deterioration.
- Criteria set by Silver Chain- see 'Patient eligibility' on Silver Chain website

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 of women referred to Home Hospital

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

1. Complete referral form which is found at the Silver Chain web site https://www.silverchain.org.au/wa/referrers/
2. Obtain a pathology work up:
   - Sample of expressed breast milk is sent for microscopy, culture and sensitivity
   - If temperature >38°C or rigors present do a full blood picture and blood cultures
3. Commence IV antibiotics. Ensure the woman also has a script for oral flucloxacillin.
4. Notify the Breastfeeding Centre (a message may be left on the answering machine)
5. Commence mastitis variance 'MR261.16 Management of Mastitis' and document an appropriate management plan. Give this to the woman.

General measures for Home Hospital

- Antibiotics:
  - Cefazolin 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 (EC) to review expressed breast milk and blood cultures results to ensure correct antibiotic has been prescribed. If a change of antibiotic is required, EC to inform the woman to come and collect the new prescription from EC.
- Refer to the Breastfeeding Centre for a follow up appointment.

Breast abscess

Definition

An abscess is a walled-off, localised collection of pus that lacks an outlet for the pus from the affected area. Once encapsulated, it requires aspiration or surgical drainage.

Key points

1. A breast abscess is a complication of mastitis and often occurs as the result of untreated, inadequate, incorrect or delayed treatment of mastitis or abrupt weaning.
2. Usually, the woman presents feeling unwell, feverish, with a localised painful, red swollen area on her breast. The symptoms of fever and redness may have resolved but the woman presents with an unresolved breast lump and breast pain.

Management

1. Review by a Consultant Obstetrician or Senior Registrar and referral to the SCGH Breast Clinic/Surgical Team for a Diagnostic Ultrasound. If a woman presents to EC for mastitis or breast abscess, and requires transfer to another hospital, the woman needs to be assessed appropriately prior to transfer.
2. Review by a Lactation Consultant and referral to the Breastfeeding Centre.
3. Nipple swabs and an expressed breast milk sample for micro culture and sensitivity (MC&S).
4. Commence appropriate antibiotic therapy based on MC&S results. Consider the clinical severity and any microbiology results. See "Medical management of mastitis" above for some antibiotic options and KEMH Clinical Guideline, Obstetrics & Gynaecology: Infections: Postpartum Treatment and Management: Mastitis
5. Provide comfort measures e.g. Analgesia, anti-inflammatory and cool therapy.
6. Continue breastfeeding on the affected and unaffected side with corrective positioning and attachment if comfortable.
7. Express both breasts after each feed to protect the mother's milk supply and resolve / avoid milk stasis.
8. Ensure the mother has adequate rest, fluids, and mother-crafting support.

Discharge planning

1. Provide a breastfeeding plan or the 'MR 261.17 Breast abscess variance' to guide management in the home.
2. Breast pump loan arranged to continue expressing
3. Follow-up appointment at the Breastfeeding Centre offered to the woman.

References

Bibliography

Amir, L. H., & Bearzatto, A. Overcoming challenges faced by breastfeeding mothers. Australian Family Physician, 45(8), 552. 2016.

Antibiotic Expert Groups. Therapeutic guidelines: Antibiotic. Version 16. Melbourne: Therapeutic Guidelines Limited; 2019.

Campbell S, Lauwers J, Mannel R, Spencer B (Eds.). Core curriculum for interdisciplinary lactation care / Lactation Education Accreditation and Approval Review Committee; 2019.

Lauwers L, Swisher S. Counseling the nursing mother: A lactation consultant's guide. 6th edition. Jones and Bartlett Learning. 2016.

Walker M. Breastfeeding management for the clinician: Using the evidence. 4th ed. Boston: Jones and Bartlett; 2017.

Related legislation and policies

Related WNHS policies, procedures and guidelines

KEMH Clinical Guidelines:

Obstetrics & Gynaecology:

- Infections: Postpartum Treatment and Management;
- Patient Movement: Referral to Silver Chain

Pharmacy A-Z Medication Monographs

Useful resources (including related forms)

Related forms

- MR 261.16 Management of Mastitis variance
- MR 261.17 Breast Abscess Variance

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