SESLHD PROCEDURE COVER SHEET

NAME OF DOCUMENT	Mastitis (Lactational) Treatment
TYPE OF DOCUMENT	Procedure
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LEVEL OF EVIDENCE	National Safety and Quality Health Service Standards: Standard 5: Comprehensive Care NSW Health PD2018_034'Breastfeeding in NSW: Promotion, Protection and Support'
REVIEW DATE	April 2022
FORMER REFERENCE(S)	Former SESLHNPD/36 Mastitis (Lactational) Treatment Former SESLHDPR/352 Mastitis (Lactational) Treatment
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KEY TERMS	Breastfeeding, mastitis, lactation
SUMMARY	To ensure consistent evidence-based management and treatment of Lactation Mastitis across SESLHD

Feedback about this document can be sent to seslhd-executiveservices@health.nsw.gov.au

1. POLICY STATEMENT

Diagnosis and treatment of mastitis should be done in an effective and timely manner to reduce the risk of breast abscess. Maintenance of breastfeeding should be encouraged and supported during this time in accordance with NSW Ministry of Health PD2018_034 Breastfeeding in NSW - Promotion, Protection and Support.

2. BACKGROUND

Mastitis is an inflammation of a segment of breast tissue. Lactational mastitis occurs when pressure builds within the alveoli from stagnant or excess milk resulting in cellulitis of the interlobular connective tissue within the mammary gland. If left untreated, it can progress to an accompanying bacterial infection of the tissue. Half of all cases occur in the first four weeks postpartum. However mastitis can occur at any stage during lactation when the number of breastfeeds or expressions is suddenly reduced. Mastitis can also occur in the antenatal period. Common symptoms include local redness, tenderness, generalised malaise and fever.

A breast abscess is a local accumulation of pus within the breast due to bacterial infection (infective mastitis). Prompt, effective management of mastitis can reduce the risk of a breast abscess developing.

Engorgement is a generalised involvement of both breasts that are warm and flushed, often with a glassy translucent appearance. The nipple may appear to be flattened. Engorgement can occur four to five day's post-partum or with sudden weaning.

3 RESPONSIBILITIES

3.1 All staff are responsible for:

- All staff are mandated to comply with NSW Ministry of Health PD2011_069 Respecting the Difference – An Aboriginal Cultural Training Framework. Familiarising themselves with the procedure in order to provide consistent, effective treatment for lactational mastitis.
- Adhering to this procedure at all times in order to ensure that breastfeeding continues and that mothers are not separated from their babies.
- Compliance with this document is mandatory for all staff.

3.2 Line Managers are responsible for:

- Ensuring that staff are familiar with the Local Health District policies and procedures and the requirement for adherence (For periodic review at management discretion).

3.3 Medical staff are responsible for:

- Following the procedure below to diagnose and treat mastitis to minimise severity or reoccurrences of mastitis and/or breast abscess. Refer for appropriate follow up.

4. PROCEDURE

Timely recognition and diagnosis is critical. Flow chart as per Appendix 1.

4.1 Signs and symptoms recognition (When two or more clinical symptoms are present)

- Reddened area usually on one breast (commonly caused by Staphylococcus Aureus), which may be tender/painful and hot to touch
- Bilateral mastitis (rare) is usually caused by Streptococcus
- Flu like symptoms including aching joints, fever (38.5°C or above) and chills
- It is important to differentiate between mastitis and engorgement.

4.2 Possible causes identified

- Nipple damage such as grazes or cracks which may occur allowing colonisation of Staphylococcus
- Milk stasis results from infrequent, scheduled or missed feeds; changes in feeding pattern; pressure on breast from ill-fitting bra or seat belt or prolonged lying on one side; limited suckling time at the breast; separation from baby; ineffective milk removal; baby with tongue tie; recent trauma to breast
- White spot on nipple face may be present and obstruct the milk flow
- Blocked ducts
- Hyperlactation
- Maternal stress and fatigue.

4.3 Prevention strategies conveyed

- Adhere to principles of hand hygiene before and after handling breasts or pumping equipment
- Ensure optimum attachment of baby to the breast during feeds to prevent nipple damage, and remove breast milk effectively
- Encourage frequent baby–led breastfeeding
- Ensure adequate milk removal. If feed/s are missed, milk may need to be expressed
- Avoid constrictive or ill-fitting bra which may lead to poor drainage of the breast
- After feeding, breasts should feel softer and more comfortable with no hard or tender lumps remaining. Woman should be educated to recognise signs and symptoms of mastitis and how to hand express independently
- Avoid use of breastmilk substitutes unless there is an acceptable medical reason
- Rooming in 24 hours to enable woman to respond to her baby's early feeding cues. SESLHDPD/251 Breastfeeding Women: Support in Non-Maternity Facilities in SESLHD. Breastfeeding Women: Support in Non-Maternity Facilities
- Avoid rapid weaning, as gradual weaning has less risks
- Any pumping equipment should be washed thoroughly with hot soapy water, rinsed well and dried thoroughly with a clean paper towel.

4.4 Treatment

Clearance of Blockage/Engorgement

- No evidence of risk to healthy term infant when continuing to breastfeed from mother with mastitis
- Avoid abrupt weaning
- Continued breastfeeding with unrestricted suckling time
- Gently massage area towards nipple before and during feeds
- Start feeds on affected breast for two feeds in a row
- Apply cold pack to area after feeds
- If white spot on nipple is present – remove obstruction aseptically and express thickened milk from affected duct(s)
- If the woman is unable to breastfeed then it will be necessary to remove milk by either hand expressing or with the use of a breast pump
- Some women may benefit from applying a warm compress to the affected area prior to milk removal
- Rest, adequate fluids and good nutrition are important
- Analgesia as directed for relief of pain and other symptoms (paracetamol can be used antenatally, and both paracetamol and ibuprofen are safe during lactation).

4.5 Admission to Hospital

- If the woman is admitted to hospital for treatment, request review by CMC Lactation or designated Midwife/Nurse from Maternity ward
- Attend routine admission procedures including completion of "Mastitis: Breast Examination form – SES060429. Breast exam form to be completed once every shift
- Provide woman with NSW Health patient information Leaflet on Mastitis (link and Appendix 3)
- Obtain breastmilk sample for quantitative breastmilk culture and sensitivities from both breasts and transport to pathology
- Explain procedure, gain verbal consent and provide handout (Appendix 2)
- Arrange diagnostic Ultrasound if breast abscess is suspected or mastitis is not resolving after 48 hours of antibiotics and obtain Surgical Team review.
- Discuss with CNC-Infection Control if results indicate presence of Methicillin-resistant microorganism (MRSA) or Group B Streptococcus
- Consideration must be given to the most appropriate location for the baby. A clinical management plan for the baby accompanying their unwell mother is required. (Refer to local business rules/procedures and MOH policies).

Antibiotic Therapy for infective mastitis.
Obtain breastmilk sample for culture prior to commencement of antibiotics

Condition	Antibiotics	Dose
Mastitis with nil allergies	Flucloxacillin (first line)	2g IV q6h. Review need for IV therapy after 3 days. Change to oral Flucloxacillin or Dicloxacillin 500mg qid, 1 hour before meals
Hypersensitivity to penicillins (excluding anaphylaxis)	Cefazolin	2g IV q8h. Change to oral cefalexin 500mg qid
Immediate hypersensitivity to penicillins (Anaphylaxis)	Clindamycin	600mg IV q8h. Change to oral 450 mg tds
Infectious Diseases to be notified if patient is suspected colonised with MRSA		

- If febrile, consider commencing IV antibiotics
  - Oral antibiotics may commenced when the woman is clinically improving, tolerating oral fluid and afebrile over preceding 24 hours
  - A total treatment duration of up to 2 weeks (IV and oral) is recommended
  - Current oral antibiotic recommendations are:
    - Flucloxacillin 500mg four times a day, one hour before meals
    - Cefalexin 500mg four times a day (for patients with penicillin hypersensitivity, excluding anaphylaxis)
    - Clindamycin 450mg three times a day (for patients with penicillin anaphylaxis)
- Collect breastmilk sample from both breasts for quantitative breastmilk culture and sensitivities to confirm appropriate choice of antibiotic
- Consider diagnostic ultrasound to confirm diagnosis of suspected breast abscess. Consult the Breast surgical team if abscess diagnosed
- Management and the treatment of the abscess by ultrasound guided drainage or surgical intervention as per surgical consultation
- Antibiotic treatment may cause breast or vaginal thrush. If symptoms develop treatment will be needed
- If the woman has mastitis in the antenatal period administer STAT dose of IVI Flucloxacillin or Clindamycin followed by oral antibiotics for 10-14 days.
- Women with antenatal mastitis are advised NOT to express
- Inform all women to expect improvement within 24 - 48 hours.

Collection of breastmilk sample for quantitative breastmilk culture and sensitivities

- Explain procedure and give handout (Appendix 2) to woman and verbally assist her in this collection
- Ensure the woman washes her hands
- Explain to her to clean the nipples with water or normal saline
- Explain to her to express a teaspoon of milk into a container to keep, and then express a further two to three teaspoons of milk from each breast into two separate specimen containers, ensuring not to allow the nipple to touch the inside of the

container. Refer to 4.4 Treatment: Clearance of Blockage/ Engorgement, if difficulties arise with expressing

- Staff are to label and send to pathology with request for quantitative breastmilk culture and sensitivities using selective culture media to ensure potential pathogens are recovered from a sample that also contains normal duct flora. Transport to the laboratory immediately or refrigerate the sample if there is a delay

4.6 Follow Up and Contacts

- See GP within two days to assess specificity and duration of antibiotics prescribed. Many authorities recommend a ten to 14 day course to minimise re-occurrence. Two prescriptions will be needed.
- Consult with Lactation Consultant, Child and Family Health Nurse or Australian Breastfeeding Association Counsellor prior to completing course of antibiotics to ensure appropriate resolution
- Mastitis leaflet – Causes, prevention, treatment should be discussed and given to each woman
- Midwives and Child and Family Health Nurses can provide ongoing breastfeeding support https://www.seslhd.health.nsw.gov.au/services-clinics/directory/child-youth-family-services/child-family-health-service
- http://www.schn.health.nsw.gov.au/find-a-service/health-medical-services/community-child-health/sch . Central bookings on 9382 0933
- Australian Breastfeeding Association Counsellor – 1800 686 268 (1800mum2mum).www.breastfeeding.asn.au
- International Board Certified Lactation Consultants (IBCLC's) for private counselling can be located on the LCANZ website https://www.lcanz.org/find-a-lactation-consultant/
- After hours telephone advice lines are listed in or on the back cover of baby's personal health record (blue book)
- Mother Safe (Medications in pregnancy and Lactation Service) Ph: 02 9382 6539 or 1800 647 848. https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/services-clinics/directory/mothersafe

5. DOCUMENTATION

- Mastitis: Breast Examination form (SES060429)
- Maternal Care Pathway Electronic Medical Records
- Electronic Medication Chart
- SMOC
- SNOC
- SPOC

6. AUDIT

Only IIMS review as required

7. REFERENCES - Related Policies

- NSW Ministry of Health PD2018-034 Breastfeeding in NSW: Promotion, Protection and Support
- NSW Ministry of Health PD 2017_013 Infection Prevention and Control Policy
- SESLHDPD/251 Breastfeeding Women: Support in Non-Maternity Facilities in SESLHD.

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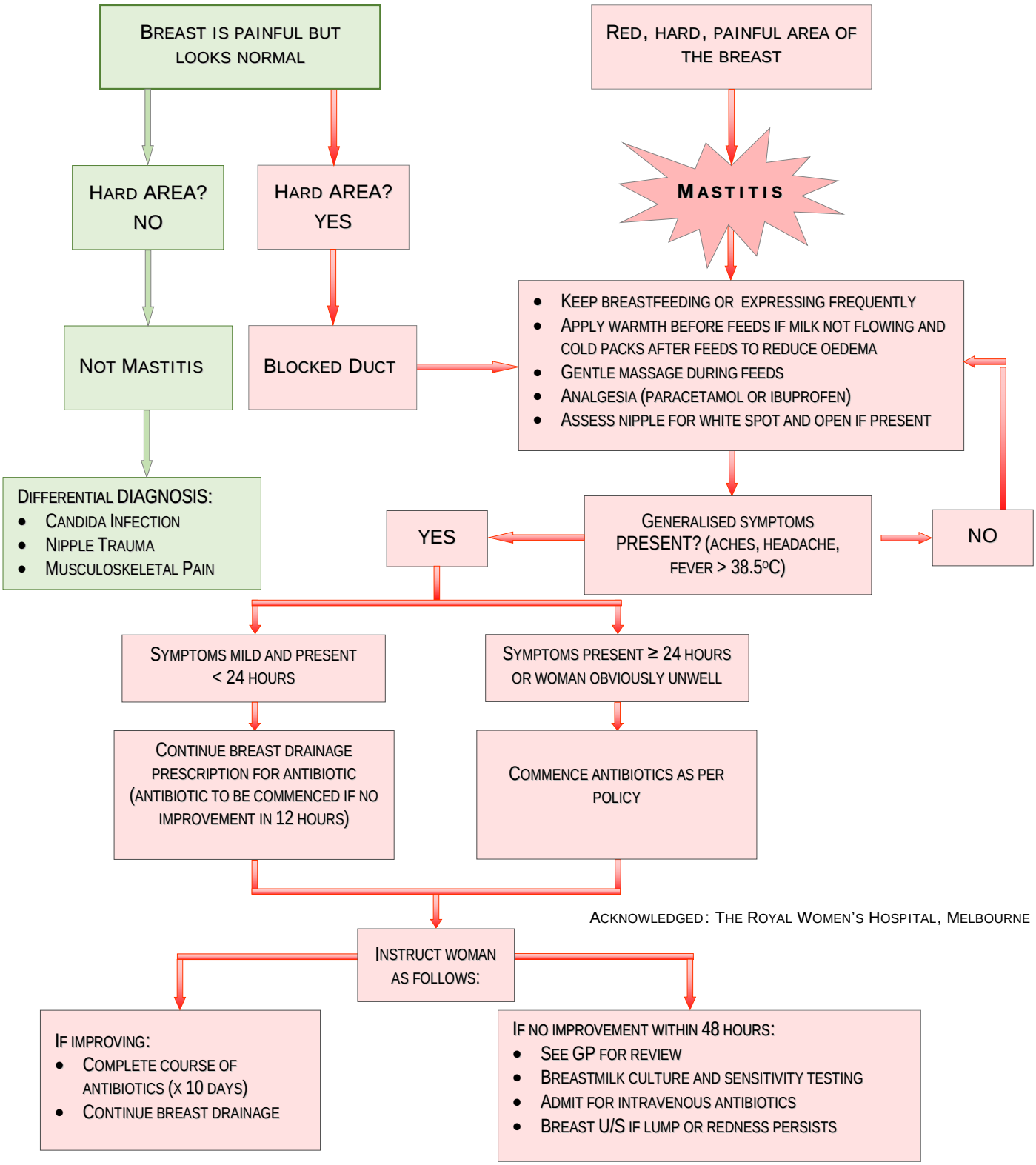
8. REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
February 2011	0	SESIAHS Lactation Group, and approved by Combined Clinical Council, and SESIAHS Infection Prevention and Control Committee
March 2014	2	SESLHD Lactation Group/ Women's and Children's Clinical Stream
June 2014	2.5	Final Amendment made as instructed by Authors. Submitted to Leisa Rathborne, Women's and Babies Health Clinical Stream Director and Clinical Executive Sponsor
June 2014	2.5	Approved by Executive Clinical Sponsor, Leisa Rathborne
December 2014	3	Minor review endorsed by Executive Sponsor
January 2019	4	Claudelle Miles, CMC Lactation RHW
March 2019	4	Minor review approved by Executive Sponsor. Updates on specific antibiotic use. Completion of Mastitis: Breast Examination form – SES060429. Breast exam form to be completed once every shift. Addition of appendix 3 with SESLHD Patient information leaflet on mastitis. Updates on references.
March 2019	4	Processed by Executive Services and progressed to Quality Use of Medicines Committee.
April 2019	4	Approved by Quality Use of Medicines Committee.

APPENDIX 1

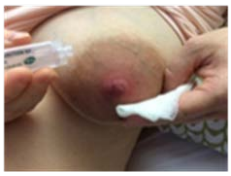
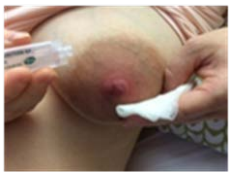
ASSESSMENT AND MANAGEMENT OF LACTATING WOMEN PRESENTING WITH BREAST PAIN AND POSSIBLE MASTITIS FLOWCHART



ACKNOWLEDGED: THE ROYAL WOMEN'S HOSPITAL, MELBOURNE

APPENDIX 2

PATIENT HANDOUT ON COLLECTING MIDSTREAM BREASTMILK CULTURE

OPTION 1		OPTION 2- IF UNABLE TO BREASTFEED	
YOU WILL NEED : ONE CONTAINER NORMAL SALINE OR WATER GAUZE		YOU WILL NEED : THREE CONTAINERS NORMAL SALINE OR WATER GAUZE	
Wash your hands		Wash your hands	
Feed baby on affected breast for 5 minutes		Express one teaspoon of milk into one container (store this milk for baby)	
Clean breast / nipple / areola with water or normal saline		Clean breast / nipple areola with water or normal saline	
Express and collect approximately two teaspoons from each breasts into 2 separate new specimen containers Take care not to let your breast, nipple or fingers touch inside of specimen container		Express and collect approximately two teaspoons from each breasts into 2 separate new specimen containers Take care not to let your breast, nipple or fingers touch inside of specimen container	
Give sample to midwife / nurse immediately to label confirming your details are correct		Give sample to midwife / nurse immediately to label confirming you details are correct	
Breastmilk sample will be sent to Pathology immediately by your nurse / midwife. If delayed breastmilk sample must be refridgerated immediately		Breastmilk sample will be sent to Pathology immediately by your nurse / midwife. If delayed breastmilk sample must be refridgerated immediately	

APPENDIX 3

BREASTFEEDING, MASTITIS SESLHD LEAFLET

Mastitis

Health
South Eastern Sydney
Local Health District

Causes, prevention, treatment

WHAT IS MASTITIS?

Mastitis is inflammation of the breast tissue that can be caused by an

engorged breast or a blocked duct.

A red, lumpy, painful area on the breast is an early sign and mastitis can develop quickly if the milk is not removed.

Signs and symptoms

- Chills/fever
- Joint aches and pains
- Flu-like symptoms.

Your breast becomes:

- Painful with pink/red areas
- Hot
- Swollen.

Possible causes

- Incorrect positioning and attachment to the breast.
- Nipple damage (grazes or cracks).
- An engorged or over-full breast.
- Infrequent feeding or a change in the pattern of feeds, including when weaning.
- Pressure on the breast. This could be from a tight bra or finger pressing into the breast during a feed.
- Favouring one breast.
- Scheduling of breastfeeds, limiting sucking time.
- White spot on face of nipple

When treated early, more serious infections can be prevented

AVOIDING MASTITIS

- Wash your hands before handling your breasts or nipples.
- Position and attach your baby to the breast correctly. The nipple may look slightly stretched after the feed but should not be squashed or flattened.
- Make sure the breast you feed from first is soft and comfortable before feeding from the other side.
- If your baby feeds on one side only, you may need to express some milk from the other side for comfort only. Approximately one tablespoon
- Gently feel your breasts for lumps or tender areas before and after a feed.
- If you find a lump or tender area, gently massage towards the nipple before and during feeds.
- Use different feeding positions such as underarm or cradle hold. Place your baby's chin towards the fullest area of the breast during feeds.
- If you become unwell, feel your breasts for lumps and look for redness (using a mirror can be helpful) – refer to the Signs and Symptoms section.
- If you feel pain when breastfeeding or think you may have mastitis, seek help from your Midwife, Child and Family Health Nurse, Lactation Consultant (IBCLC) or Australian Breastfeeding Association Counsellor.

MANAGEMENT OF MASTITIS

The most important step in treating mastitis is frequent and effective milk removal.

- To help empty your breasts, offer the affected side first. Express the other breast for comfort if your baby does not feed from it.
- Your baby may need to be woken to feed.
- If unable to feed, hand express or use a pump to soften the breast.
- Make sure your baby is positioned and attached correctly and do not limit sucking time.
- Gently massage the affected area toward the nipple before and during feeds. A drop of olive oil on the breast may help prevent skin friction.
- Point your baby's chin to the affected area during feeds.

- A warm pack can be used just before feeds to encourage milk flow.
- Cold packs after and between feeds may help with pain relief and swelling reduction.
- It is important to rest and ask for help at home.
- Consider short term use of pain relief such as paracetamol or ibuprofen, as directed.

If the problem does not get better within 12-24 hours or you suddenly feel very ill, contact your doctor. Antibiotics may be needed.

USE OF ANTIBIOTICS

- The current recommendations are Flucloxacillin (preferred) or Clindamycin (if allergic to penicillin).
- These antibiotics can be used safely when breastfeeding.
- Take total 10-14 days of antibiotics to minimise recurrence of mastitis.
- Antibiotic treatment can sometimes cause vaginal thrush. If symptoms develop, treatment will be needed.
- Take extra care with hand washing.

Breastfeeding is generally very safe for babies during mastitis whilst you receive and complete the recommended antibiotic treatment.

In the rare instance that your baby seems unwell or has a fever, you should seek prompt medical attention.

Contacts

- Your local Maternity Unit.
- Your Child and Family Health Nurse.
- Australian Breastfeeding Association Helpline Ph.: 1800 686 268, 7 days a week, or visit www.breastfeeding.asn.au
- Mother Safe (Medications in Pregnancy & Lactation Service) Ph.: (02) 9382 6539 or 1800 647 848 if outside the Sydney Metropolitan area.
- For a Lactation Consultant (IBCLC) www.lcanz.org/find-a-consultant.htm
- After-hours telephone advice lines are listed in your baby's *Personal Health Record* (Blue Book).

References

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Antimicrobial Guidelines (Obstetrics)

South Eastern Sydney and Illawarra Shoal haven Local Health Districts, November2018