<table>
<thead>
<tr>
<th>NAME OF DOCUMENT</th>
<th>Mastitis (Lactational) Treatment</th>
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<tr>
<td>TYPE OF DOCUMENT</td>
<td>Procedure</td>
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<tr>
<td>DOCUMENT NUMBER</td>
<td>SESLHDPR/352</td>
</tr>
<tr>
<td>DATE OF PUBLICATION</td>
<td>May 2014</td>
</tr>
<tr>
<td>RISK RATING</td>
<td>Medium</td>
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<tr>
<td>LEVEL OF EVIDENCE</td>
<td>NSW Health PD2011_042 ‘Breastfeeding in NSW: Promotion, Protection and Support’</td>
</tr>
<tr>
<td>REVIEW DATE</td>
<td>May 2017</td>
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<tr>
<td>FORMER REFERENCE(S)</td>
<td>Former SESLHNPD/36 ‘Mastitis (Lactational) Treatment’</td>
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| EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR | Leisa Rathborne  
Women’s and Children’s Clinical Stream Director |
| AUTHOR                   | Kirstin Lock                    |
|                         | SESLHD Lactation Group          |
|                         | Chair, CMC Lactation            |
| POSITION RESPONSIBLE FOR THE DOCUMENT | Kirstin Lock  
SESGLHD Lactation Group  
Chair, CMC Lactation |
|                         | Kirstin.lock@sesiahs.health.nsw.gov.au |
| KEY TERMS                | Breastfeeding, mastitis, lactation |
| SUMMARY                  | To ensure consistent evidence-based management and treatment of Lactation Mastitis across SESLHD |
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 Policy Directive ‘Breastfeeding in NSW: Promotion, Protection and Support’ PD2011_042

2. BACKGROUND
Mastitis is inflammation of a segment of breast tissue. If left untreated, it can progress to an accompanying bacterial infection of the tissue. Common symptoms include local redness and tenderness, generalised malaise and fever. Mastitis can also occur in the antenatal period.

Breast abscess – a local collection of pus formed when a bacterial infection (infective mastitis) has inadequate drainage.

Engorgement – generalised involvement of both breasts that are warm and flushed, often with a glassy translucent appearance and the nipples may be flattened. Engorgement can occur 4-5 days 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 Policy Directive ‘Respecting the Difference – An Aboriginal Cultural Training Framework’ PD2011_069.
- 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 breast feeding continues and that mothers are not separated from their babies

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.
PROCEDURE
Timely recognition and diagnosis is critical. Flowchart as per Appendix 1.

4.1 Signs and symptoms recognition
- Reddened area usually on one breast (commonly caused by Staph. Aureus), which may be tender/painful and hot to touch
- (Can be bilateral mastitis – 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 allow infection to occur
- Milk stasis – missed feeds; changes in feeding pattern; pressure on breast from ill-fitting bra, seat belt or prolonged lying on one side; limited suckling time at 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 flow
- Hyperlactation
- Maternal stress and fatigue

4.3 Prevention strategies conveyed
- Effective hand washing 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
- Ensure adequate milk removal – if feed/s missed, milk may need to be expressed
- Avoid constrictive or ill fitting bra which may lead to poor drainage of breast
- After feeding, breasts should feel softer and more comfortable with no hard or tender lumps remaining. Mothers should be educated to recognise signs and symptoms of mastitis
- Avoid rapid weaning, gradual weaning is preferred
- 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
- Continued breastfeeding with unlimited suckling time
- 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 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 mothers 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)

Other Management - Antibiotic Therapy
- If febrile consider IV Flucloxacillin 2 grams q6h
- Current oral recommendations are: 500mg Dicloxacillin or Flucloxacillin or Cephalexin, four times a day for 10 – 14 days, 1 hour before meals. If woman has a Penicillin allergy then Clindamycin is recommended
- Collect breastmilk sample 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 who will manage the treatment of the abscess either by ultrasound drainage or decide whether surgical intervention is indicated
- 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 Flucloxicillin or Erythromycin 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 (see Appendix 2) to woman and verbally assist her in this collection
- Ensure the mother washes her hands
- Explain to her to clean the nipple with water or normal saline
- Explain to her to express a teaspoon of milk into a container to keep, and then express a further 2 to 3 teaspoons of milk into a specimen container, taking care not to allow the nipple to touch the inside of the container. Refer to 4.4 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.

4.5 Follow Up and Contacts

- See GP within two days to assess specificity and duration of antibiotics prescribed. Many authorities recommend a 10-14 day course to minimise re-occurrence. Two prescriptions will be needed.
- Mastitis leaflet – Causes, prevention, treatment should be discussed and given to each woman (This leaflet is available on the intranet (and from this link SESIAHS Mastitis Leaflet).
- Midwives and Child and Family Health Nurses can provide ongoing breastfeeding support. (Numbers available in telephone book, under Hospitals, or Community Health Services for Early Childhood Nurses.)
- Australian Breastfeeding Association Counsellor – 1800 686 2 686 (1800 mum 2 mum)
- International Board Certified Lactation Consultants (IBCLC’s) for private counselling can be located on the LCANZ website http://www.lcanz.org/find-a-consultant.htm
- After hours telephone advice lines are listed in or on the back cover of baby’s personal health record (blue book)
- MotherSafe (Medications in pregnancy and Lactation Service) Ph: 02 9382 6539 or 1800 647 848

5. DOCUMENTATION

- Clinical Notes
- Maternal Care Pathway

6. AUDIT

Only IIMS review as required

7. REFERENCES

- NSW Ministry of Health Policy Directive ‘Hand Hygiene’ PD2010_058
- SESLHD Policy ‘Breastfeeding Women: Support in Non-Maternity Facilities in SESLHD’ SESLHDPD/251
- Royal Hospital for Women Mastitis and Breast (Lactational) Readmission for Treatment 21/6/2012
8. REVISION AND APPROVAL HISTORY

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<tr>
<th>DATE</th>
<th>REVISION NO.</th>
<th>AUTHOR AND APPROVAL</th>
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<tr>
<td>Feb 2011</td>
<td>0</td>
<td>SESIAHS Lactation Group, and approved by Combined Clinical Council, and SESIAHS Infection Prevention and Control Committee.</td>
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<tr>
<td>March 2014</td>
<td>2</td>
<td>SESLHD Lactation Group/ Women’s and Children’s Clinical Stream.</td>
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<tr>
<td>May 2014</td>
<td>2</td>
<td>Revised and re-formatted by District Policy Officer.</td>
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<tr>
<td>Jun 2014</td>
<td>2.5</td>
<td>Final Amendment made as instructed by Authors. Submitted to Leisa Rathborne, Women’s and Babies Health Clinical Stream Director and Clinical Executive Sponsor.</td>
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<td>Jun 2014</td>
<td>2.5</td>
<td>Approved by Executive Clinical Sponsor, Leisa Rathborne.</td>
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- Therapeutic Guidelines Ltd 2010
APPENDIX 1
ASSESSMENT AND MANAGEMENT OF LACTATING WOMEN PRESENTING WITH BREAST PAIN AND POSSIBLE MASTITIS FLOWCHART

**Mastitis**
- Keep breastfeeding or expressing frequently
- Apply warmth before feeds if milk not flowing and cold packs after feeds to reduce oedema
- Gentle massage during feeds
- Analgesia (paracetamol or ibuprofen)
- Assess nipple for white spot and open if present

**Breast Is Painful But Looks Normal**
- **Hard Area?**
  - **No**
  - Not Mastitis
  - **Differential Diagnosis:**
    - Candida Infection
    - Nipple Trauma
    - Musculoskeletal Pain
  - **Symptoms Mild and Present < 24 Hours**
    - Continue breast drainage
    - Prescription for antibiotic (antibiotic to be commenced if no improvement in 12 hours)
  - **If Improving:**
    - Complete course of antibiotics (x 10 days)
    - Continue breast drainage

**Red, Hard, Painful Area of the Breast**
- **Hard Area?**
  - **Yes**
  - Blocked Duct
  - **Symptoms Present < 24 Hours or Woman Obviously Unwell**
    - Commence antibiotics as per policy
  - **If No Improvement Within 48 Hours:**
    - See GP for review
    - Breastmilk culture and sensitivity testing
    - Admit for intravenous antibiotics
    - Breast U/S if lump or redness persists

**Generalised Symptoms Present?**
- **Yes**
  - (aches, headache, fever > 38.0°C)
  - Instruct woman as follows:
- **No**
## APPENDIX 2

**PATIENT HANDOUT ON COLLECTING MIDSTREAM BREASTMILK CULTURE**

<table>
<thead>
<tr>
<th>STEP I</th>
<th>STEP II</th>
</tr>
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<tbody>
<tr>
<td><strong>YOU WILL NEED:</strong></td>
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</tr>
<tr>
<td>ONE CONTAINER</td>
<td>TWO CONTAINERS</td>
</tr>
<tr>
<td>NORMAL SALINE OR WATER</td>
<td>NORMAL SALINE OR WATER</td>
</tr>
<tr>
<td>GAUZE</td>
<td>GAUZE</td>
</tr>
<tr>
<td><strong>Wash your hands</strong></td>
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</tr>
<tr>
<td><strong>Feed baby on affected breast for 5 minutes</strong></td>
<td><strong>Express one teaspoon of milk into one container (store this milk for baby)</strong></td>
</tr>
<tr>
<td><strong>Clean breast / nipple / areola with water or normal saline</strong></td>
<td><strong>Clean breast / nipple areola with water or normal saline</strong></td>
</tr>
<tr>
<td><strong>Express and collect approximately two teaspoons into a new specimen container</strong></td>
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</tr>
<tr>
<td><strong>Take care not to let your breast, nipple or fingers touch inside of specimen container</strong></td>
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</tr>
<tr>
<td><strong>Give sample to midwife / nurse immediately to label confirming you details are correct</strong></td>
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</tr>
<tr>
<td><strong>Breastmilk sample will be sent to Pathology immediately by your nurse / midwife. If delayed breastmilk sample must be refrigerated immediately</strong></td>
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