

Nurse Practitioner- Emergency Services
CLINICAL PRACTICE GUIDELINE
Symptoms Suggestive of Mastitis

Scope		Outcomes
Nurse Practitioner	<ul style="list-style-type: none"> Unilateral erythema / pain / swelling of breast in person currently lactating 	Identify patients suitable for NP (Emergency) CPG
Medical Practitioner +/- Nurse Practitioner	<ul style="list-style-type: none"> Altered conscious state including effects of drugs / alcohol History consistent with collapse 	Identify patients not suitable for NP (Emergency) CPG and redirect to usual ED care +/- NP in team.
Initial Assessment & Interventions		Outcomes
Primary survey assessment	<ul style="list-style-type: none"> Airway Breathing Circulation Disability Environment 	Abnormal primary survey identified → exit CPG. Immediate referral to EP.
History	<ul style="list-style-type: none"> History of illness including systemic symptoms Pre hospital treatment and management Obstetrician / Ante Natal / Post Natal Care History of symptoms – onset- breast feeding history Past medical history / medications Allergies Last food / fluids 	Exclusion criteria identified → exit CPG and refer to EP
Focused clinical assessment ⁽¹⁾	<ul style="list-style-type: none"> Hemodynamic parameters Assess breasts for signs of engorgement, redness, pain, heat Assess for signs of lymphangitis / nodes Assess nipples for cracks, fissures, maceration, discharge Assess for localised area of fluctuance (abscess) Finger prick BSL 	Determine severity of symptoms
Pain assessment	<ul style="list-style-type: none"> Pain scale 	Determine need for and type of analgesia
Analgesia	<ul style="list-style-type: none"> Administration of analgesia (see medications) frequent feeding / expressing to empty breast milk adequate fluid intake adequate rest variation of feeding position 	Reduction / relief of pain
Working diagnosis and Investigations		Outcomes

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Imaging ^[1]	Not routinely required – consider U/S if palpable fluctuant mass or symptoms not resolving in 48 hrs. Discuss with EP.	Identify / exclude associated problem and determine patient management
Pathology ^[1]	Not routinely required but consider necessity for <ul style="list-style-type: none"> • FBE, U & E, CRP if signs of systemic infection • Blood cultures if Temp > 38.5C • +/- Breast milk culture^[1] 	
Interpretation of results (diagnostic features) and management decisions		Outcomes
Imaging ± clinical features		
Breast looks normal No hard area	Not mastitis: consider candidal infections, incorrect attachment, musculoskeletal pain	Discuss with EP and/or Private Obstetrician if appropriate
Breast looks normal with Hard area (Likely Blocked duct) Or Mild Mastitis ^[1] Red, hard, tender area on breast. Symptoms less than 24 hours and no generalised symptoms (myalgia/arthritis, headaches, lethargy and fever > 38.5C)	NP (Emergency) review with view to discharge Advise Breast drainage as follows; ⁽⁴⁾ <ul style="list-style-type: none"> ○ Keep breast feeding ○ Feed frequently from affected side first and ensure baby drains breast completely before offering second side. ○ Apply heat before feeds ○ Gentle massage of lump towards the nipple before and as baby feeds. ○ Change feeding position i.e baby's chin pointing towards affected area <ul style="list-style-type: none"> • Analgesia if necessary • Cooling agents i.e. Cool cabbage leaves or cool packs applied after feeds • Advise rest, adequate fluids, help as required at home • Avoid restrictive clothing/bra • Review in 48 hrs by GP 	Patient discharged. Consider need to discuss with Private Obstetrician if appropriate
Moderate Mastitis present. Generalised symptoms present for < 24 hours ie- aching, headaches, lethargy or fever > 38.5C	NP (Emergency) review with view to discharge Advise <ul style="list-style-type: none"> • Continue breast drainage as above • Supply prescription for antibiotics (antibiotics to be taken if no improvement in 12 hours) -see formulary • If breast still red or hard after 5 days – continue antibiotics for 10 days • If lump persists to GP to arrange Ultrasound to exclude abscess 	Patient discharged. Consider need to discuss with Private Obstetrician if appropriate
Severe Mastitis present. May be surrounding cellulitis Symptoms present > 24 hours.	NP (Emergency) review with view to discharge or refer for admission <ul style="list-style-type: none"> • Commence antibiotics - see formulary • Consider need for IV antibiotics and need for hospital admission or if patient is suitable for Hospital in the Home (HITH) program • Review in 48 hrs by GP. If no better return to ED for 	Patient discharged or assessment by Surgical team.

Obviously systemically unwell	<ul style="list-style-type: none"> review. May need admission and IV Abs. • Patient education / health promotion • Breastfeeding should continue to ensure breast emptying and weaning should not be encouraged at this time. Apply heat and massage during feeds⁽¹⁾ 	
Suspicion of Breast Abscess	<p>If suspicion of breast abscess refer to surgical team for probable admission</p> <ul style="list-style-type: none"> • Probably require soft tissue ultrasound • Consider commencing antibiotics 	Assessment by surgical team
Associated care	<ul style="list-style-type: none"> • Consider IV fluids for patients who require fasting for surgical intervention if suspicion of an abscess 	
Patient Discharge Education		Outcomes
When to return	<ul style="list-style-type: none"> • Verbal instructions from NP (Emergency) re Increasing symptom severity 	Ensure patient understands problem, treatment, follow up and is safe for discharge home
Follow up appointments	<ul style="list-style-type: none"> • Verbal instructions from NP (Emergency) for review by GP in 48 hours if applicable 	Ensure patient understands problem, treatment, follow up and is safe for discharge home
Medication instructions	<ul style="list-style-type: none"> • Verbal instructions from NP (Emergency) • Written information as per the Hospital Pharmacy on medications dispensed if available. 	Ensure patient understands problem, treatment, follow up and is safe for discharge home
Referrals	<ul style="list-style-type: none"> • Referrals may be made for specific patient problems or as required to; <ul style="list-style-type: none"> - lactation consultant if necessary - physiotherapy for ultrasound - social work 	Ensure patient understands problem, treatment, follow up and is safe for discharge home
Certificates	<ul style="list-style-type: none"> • Absence from work certificate 	Appropriate documentation completed
Letters	<ul style="list-style-type: none"> • General Practitioner letter 	Ensures continuity of care and referral to health care team
Medications		Outcomes
All medication will be stored, labeled and dispensed in accordance with hospital policy and relevant legislation ⁽²⁾ According to Ambulatory Pain Management Guidelines		

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<p>Simple analgesia⁽³⁾ S2 Mild to Moderate</p>	<p>Paracetamol 500mg: 1 or 2 tablets 4-6/24, not exceeding 8 tablets in 24 hrs OR Panadeine: 1 – 2 tablets 4 – 6/24, not exceeding 8 tablets in 24 hours OR Panadeine Forte: 1-2 tablets 4-6/24, not exceeding 8 tablets in 24 hours.</p>	<p>Patients given analgesia appropriate to allergies, current medications and past medical history Analgesia requirements determined by ongoing assessment of pain and adequate analgesia provided Patients with excessive pain or pain unrelieved by analgesia need review by EP</p>
<p>Anti-emetic PRN S4</p>	<p>Metoclopramide hydrochloride: Oral /IMI / IV : 10 mg 8/24. Max. 30 mg in 24 hours.</p>	
<p>Intravenous fluids</p>	<p>0.9% Sodium Chloride Intravenous fluid: 5-10ml flush of Intravenous cannulae 6/24 or Infusion at 4-12hrly titrated to patients requirements. May require monitoring of U & Es</p>	
<p>Other S4 Antibiotics^(1, 3, 5)</p>	<p>Moderate Infection Di/Flucloxacillin: 500mg orally 6/24 for 5 days</p> <p>If allergic to Penicillin: Cephalexin: 500mg orally 6/24 for 5 days If history of Immediate penicillin hypersensitivity: Clindamycin: 450 mg 8/24 for 5 days (May cause loose bowel actions in baby)</p> <p>Severe Infection Only Flucloxacillin: 2g IV, 6/24</p> <p>If HITH referral Cephazolin: (excreted in breast milk) 2g IV, 12/24</p> <p>If penicillin hypersensitivity then Cephazolin: 2 gm IV, 8/24</p> <p>History of Immediate penicillin hypersensitivity Clindamycin: 450mg IV 8/24 (May cause loose bowel actions in baby) Or Vancomycin (if pathogen sensitivity confirmed) 1 gm IV, 12/24 (monitor blood levels and adjust doses accordingly - see therapeutic guidelines - Mastitis) Contraindicated in breast feeding. Need to discontinue breast feeding while receiving Vancomycin.</p>	
Clinical audit evaluation strategies		
<p>Unexpected representation</p>	<p>Emergency Department attendance register and NP (Emergency) clinical log</p>	
<p>Missed problem</p>	<p>Emergency Department review</p>	

References
<ol style="list-style-type: none"> 1. Clinical Practice Guidelines - Lactational Mastitis. [The Royal Womens Hospital] 2005 Sep 21 [cited 2006 Mar 20]; Available from: http://www.rwh.org.au 2. Hospital Medication Storage and Administration Policy. 3. eMIMS. [eMIMS on Clinical Information Access Online website] 2006 [cited 2006 Mar 16]; Available from: http://www.use.hcn.com.au/html/wah/godirect.html 4. Joondalup Health Campus Work Practice OGCC05.999(3) Mastitis - Care. Available JHC Intranet 5. eTG Complete. Oct 2006. Mastitis. [cited Aug 2007] Available from Emergency Department desktop

Authorship and endorsement
<p>(This Guideline has been developed in collaboration with the JHC NP CPG Review Committee)</p>

<p>This CPG was written by:</p> <p style="margin-left: 20px;">Bronwyn Nicholson Nurse Practitioner – Emergency Services Joondalup Health Campus</p>
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<p>Reviewed and Authorised by:</p>	
<p>Dr Simon Wood Medical Director Emergency Department</p> <p>Signature: _____ Date: _____</p>	<p>Dr Paul Bailey Emergency Consultant</p> <p>Signature: _____ Date: _____</p>
<p>Paula Davis Nurse Practitioner – Emergency Services</p> <p>Signature: _____ Date: _____</p>	<p>Bronwyn Nicholson Nurse Practitioner – Emergency Services</p> <p>Signature: _____ Date: _____</p>
<p>Mary Ferrier Clinical Nurse Manager Emergency Department</p> <p>Signature: _____ Date: _____</p>	<p>Dr Steve Ward Haematologist Head of Pathology Department</p> <p>Signature: _____ Date: _____</p>
<p>Dr Martin Marshall Radiologist Perth Radiological Clinic</p> <p>Signature: _____ Date: _____</p>	<p>Mayli Foong Clinical Pharmacist Joondalup Health Campus Pharmacy</p> <p>Signature: _____ Date: _____</p>

<p>ED NP- Emergency Department Nurse Practitioner EP- Emergency Physician PS- Pain Score S1-S4- Schedule of the drug administration act LMO- Local Medical Officer OP- Outpatients CPG- Clinical Practice Guideline WC- Work cover DVA- Department of Veteran Affairs</p>	
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