



| PROTOCOL | |
|--------------------------------------|------------------------|
| Breastfeeding deviations from normal | |
| Scope (Staff): | Community health staff |
| Scope (Area): | CACH, WACHS |

This document should be read in conjunction with this [DISCLAIMER](#)
and with the Growth faltering guideline

Aim

To provide information on common breastfeeding deviations, possible causes, assessment considerations and strategies for management.

Risk

When infants are unable to breastfeed this negatively affects their nutritional, physical and psychological wellbeing.¹

Identified health risks associated with not breastfeeding include:

- Infant - ear infections, eczema, diarrhoea and vomiting, asthma, childhood obesity, leukaemia, Sudden Infant Death Syndrome (Sudden Unexpected Death in Infancy), and necrotising enterocolitis.¹
- Maternal - breast cancer and ovarian cancer.¹

Globally, suboptimal infant feeding is responsible for neonatal infectious deaths (45%), diarrhoeal deaths (18%) and acute respiratory deaths in children under five years (8%).¹

Background

Current research findings show that nine (9) out of ten (10) women initiate breastfeeding, however at six months only 15% of infants are exclusively breastfeeding.^{2, 3} The Australian Health Survey (2013) found that over half of infants (57.8%) two months of age or more were exclusively breastfeeding, decreasing to 17.6% for infants six months or more who were exclusively breastfeeding.⁴

Key Points

- Approximately one third of infants and mothers experience breastfeeding difficulties in the first months of life.^{1, 5, 6}
- A higher risk of early breastfeeding cessation is associated with difficult births impacting on infant or maternal health, separation of infant and mother, and low birth weight infants.⁵
- There is convincing evidence that antenatal and perinatal support increases the proportion of breastfeeding to six months.¹
- The early identification of impairments or deviations is acknowledged as a primary health care opportunity for early intervention, enabling infants to achieve positive developmental and functional health outcomes.^{7, 8}

Tools

- Breastfeeding Assessment Guide ((CHS012) - accessed from the CACH Intranet (Forms).
- World Health Organization Growth Charts - accessed from the CACH Intranet (Forms).
- Fenton Growth Charts for use with preterm infants - accessed from the CACH Intranet.

Process

Community health staff are well placed to provide skilled lactation and breastfeeding support through early identification and assessment of breastfeeding deviations, offering timely intervention and initiating referrals to specialist staff and services. Community health staff are encouraged to be aware of the boundaries of their professional practice and availability of local resources, for timely interventions and/or referrals.

| Steps | Additional Information |
|--|--|
| <p>At all contacts:</p> <ul style="list-style-type: none"> • Enquire about breastfeeding and lactation efficiency, noting that birth to eight (8) weeks is a critical time for the early identification and management of feeding deviations. • Identify and review existing brief interventions or feeding plans, where available. | <p>Determining the infant's capacity to breastfeed and maternal lactation efficiency is necessary for the early identification, assessment and timely intervention of deviations; with the aim of increasing breastfeeding duration for positive health outcomes.</p> <p>The Breastfeeding Assessment Guide (CHS012) can be used as a checklist for identifying and assessing feeding deviations (Appendix A).</p> |
| <p>Assessment</p> <ul style="list-style-type: none"> • Obtain a history. • Undertake a physical assessment paying particular attention to the oral anatomy and postural variations. • Observe a breastfeed. • Undertake an anthropometric assessment and document findings on the growth charts. The World Health Organization Growth Charts Birth to six (6) months for Weight and Length, and Birth to thirteen (13) weeks for Head Circumference are useful for serial growth measurements. These charts allow for accurate plotting at completed weeks of age. • Complete the Breastfeeding Assessment Guide to assist with | <p>Obtain an infant and maternal history regarding the pregnancy, birth, postnatal period and general health. Enquire about current feeding patterns including frequency, duration and number of breasts offered at each feed.</p> <p>Refer to the Physical Assessment 0-4 years Guideline for more information.</p> <p>Observe a breastfeed noting sucking, swallowing and breathing patterns, infant behaviour; maternal nipple pain, trauma and shape following detachment. This will provide information to identify feeding dysfunction and to assess milk transfer.</p> <p>The Breastfeeding Assessment Guide is used as part of a holistic assessment of the infant and the mother, by observing for signs of feeding efficiency.</p> <p>The Breastfeeding Assessment Guide</p> |

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| <p>identifying possible causes of feeding concerns.</p> <ul style="list-style-type: none"> • Document deviations and impairments of functioning on the Breastfeeding Assessment Guide and file in the client's child health record. • Discuss the findings with the client. • A photocopy of the Breastfeeding Assessment Guide can be placed in the Personal Health Record (PHR), if desired. | <p>may also identify postural variations, sleep deficits and medical conditions such as gastroesophageal reflux. These deviations require timely identification and management to avoid impacting on actual or perceived feeding and lactation issues.</p> <p>Infant assessment domains include:</p> <ul style="list-style-type: none"> • Breastfeeding observation • Oral anatomy • Posture and movement • General appearance and behavior • Elimination and hydration status • Anthropometry – weight, length, and head circumference status <p>Maternal assessment domains include:</p> <ul style="list-style-type: none"> • Nipples • Breasts • Confidence/Emotional health <p>Refer to the Breastfeeding deviations from normal – Clinical Pathway (Appendix C) for a summary of feeding deviation pathways.</p> |
| <p>Care planning</p> <ul style="list-style-type: none"> • Develop a plan with the client, considering the findings from a holistic assessment and outcomes of any previous plans. • When deviations have been identified consider the following brief intervention strategies: <ul style="list-style-type: none"> ○ Breastfeeding and lactation education ○ Information on understanding infant reflexes and cues ○ Skin to skin contact ○ Adjusting breastfeeding positioning and attachment using baby led attachment principles ○ Postural and handling information and demonstration ○ Providing details of community services ○ Encouraging family support • Where significant anatomical or functional deviations impacting on infant wellbeing have been identified, and have | <p>Staff and clients will work together to determine the most appropriate strategies to ensure the:</p> <ul style="list-style-type: none"> • Infant's nutritional requirements are being met, whilst facilitating feeding developmental milestones • Mother's short and long term goals are considered <p>When a referral has been initiated and the client is waiting for further assessment, the referring staff member will provide relevant</p> |

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| <p>not responded to brief interventions, make an immediate referral.</p> <ul style="list-style-type: none"> • When breastfeeding deviations are more complex, refer to the relevant Clinical Protocols (Appendix B). • Provide all clients with details of community services and resources that support breastfeeding and lactation: <ul style="list-style-type: none"> ○ Australian Breastfeeding Association website and Helpline ○ Raising Children Network website ○ Ngala website, Parenting Line and Residential programs – ○ 9368 9368 or outside metropolitan area 1800 111 546 ○ CACH Client resources ○ KEMH – “Breastfeeding and Breast care” booklet ○ King Edward Memorial Hospital Obstetric Medicines Information Service - 6458 2723 | <p>care planning and review client progress, as required.</p> <p>The following six (6) Clinical Protocols have been developed using collaborative professional expertise and current evidence:</p> <ul style="list-style-type: none"> • Dysfunctional suck • Maternal nipple pain and trauma • Unsettled infant • Hypolactation • Hyperlactation • Maternal breast pain <p>The Australian Breastfeeding Association (ABA) website, Breastfeeding Helpline and local support groups provide information for parents and professionals. In addition, the ABA provides free interpreter services and translated resources. Translating and Interpreting Services (TIS) can be contacted on 13 14 50 and request that TIS telephone the Breastfeeding Helpline on 1800 686 268.</p> <p>The Raising Children Network provides the following information and videos about breastfeeding, baby led attachment and infant feeding cues:</p> <p>Raising Children Network - Breastfeeding and baby led attachment video</p> <p>Raising Children Network – Baby cues video</p> |
| <p>Review</p> <ul style="list-style-type: none"> • Review the client within one to seven (1-7) days of the initial contact to establish the effectiveness of the recommended strategies. • When staff have concerns consult with the manager for guidance. Where available, staff may consult with internal Breastfeeding Services or professionals who have breastfeeding and lactation expertise. | <p>When the feeding deviation has:</p> <ul style="list-style-type: none"> • <u>Resolved</u>: continue with the universal schedule of contacts • <u>Improved</u>: re-assess and consider the staff boundaries of professional practice, to determine further monitoring and/or review requirements • <u>Not improved or there are sustained concerns</u>: refer immediately to specialist services or relevant health professionals/services, where available. |
| <p>Referral</p> <ul style="list-style-type: none"> • Seek client consent to refer to specialist services (where available) for further assessment and/or management when: | <p>Specialist services may include professionals with expertise in breastfeeding and lactation including: Lactation Consultants, General Practitioners, Paediatricians, Paediatric</p> |

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| <ul style="list-style-type: none"> ○ There has been no improvement on review ○ Sustained parental or professional concern • When referring clients to internal Breastfeeding Services, follow appropriate local electronic or paper-based referral processes. • When referring clients to external health professionals use electronic systems where available or the Referral from community health form. A photocopy of the Breastfeeding Assessment Guide can be included with the referral, if desired. • Where specialist services are not available, staff will offer additional contacts to provide individual client support. | <p>Dentists, Physiotherapists, Speech Therapists, Occupational therapists, and Dietitians; or hospital assessment if required.</p> <p>When a referral has been initiated and the client is waiting for further assessment, the referring staff member will provide relevant care planning and review client progress, as required.</p> <p>All referrals will contain:</p> <ul style="list-style-type: none"> • Key information identified from a holistic assessment using the Breastfeeding Assessment Guide and WHO Growth Charts • Outcomes of implemented strategies <p>Where there are concerns with infant growth referral information will include:</p> <ul style="list-style-type: none"> • Serial measurements of weight, length and head circumference • Weight loss and/or static weight within a stated timeframe • Growth trajectories identified as percentiles within a stated timeframe <p>Examples of information related to growth concerns may include:</p> <p>An infant with a birth weight of 3500 grams, with serial measurements plotted over a 2 week timeframe (birth to 2 weeks), has lost 380 grams; equating to a loss of greater than 10% of the infant's birth weight. List outcomes of implemented strategies.</p> <p>Serial growth measurements plotted over a 2 week timeframe (4 weeks of age to 6 completed weeks of age). Weight trajectory decreased from the 50th percentile to the 3rd percentile. Growth trajectories for length and head circumference during this timeframe remained stable on the 50th percentile. List outcomes of implemented strategies.</p> |
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Documentation

Community health staff will document relevant findings according to local processes. Refer to the following for specific information on the:

- **Breastfeeding Assessment Guide** – document relevant assessment findings and retain in Child Health Record. A photocopy may be inserted in the Personal Health

Record (PHR) for parents and health professional information. A photocopy may be included with referrals to external health professionals.

| References | |
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| 1. | National Health and Medical Research Council. Infant Feeding Guidelines. Australian Government Department of Health and Ageing. Australia. 2012. |
| 2. | Australian Government. Children's Headline Indicators. Australian Institute of Health and Welfare. Australia. 2010. |
| 3. | Australian Government. Australian National Infant Feeding Survey Indicator Results. Australian Institute of Health and Welfare. Australia. 2010. |
| 4. | Australian Bureau of Statistics. Australian Health Survey: Health Service Usage and Health Related Actions, 2011-12, Breastfeeding. Australian Government Department of Health and Ageing. Australia. 2013. |
| 5. | Australian Health Ministers' Conference 2009. The Australian National Breastfeeding Strategy 2010-2015. Australian Government Department of Health and Ageing. Australia. 2009. |
| 6. | Scott J, Binns C, Oddy W, Graham K. Predictors of breastfeeding duration: evidence from a cohort study. <i>Pediatrics</i> . 2006;117(4):e646-e55. |
| 7. | Bellman M, Byrne O, Sege R. Developmental assessments of children. <i>British Medical Journal</i> . 2013. |
| 8. | Jackson B, Needelman H, Roberts H, Willet S, McMorris C. Bayley scales of infant development screening test-gross motor subtest: Efficacy in determining need for services. <i>Pediatric Physical Therapy</i> . 2012;24(1):58-62. |
| 9. | Watson-Genna C. Supporting sucking skills in breastfeeding infants. Second Edition. United States of America: Jones and Bartlett Learning. 2013. |
| 10. | Macdonald P, Ross S, Grant L, Young D. Neonatal weight loss in breast and formula fed infants. <i>Archives of Disease in Childhood-Fetal and Neonatal Edition</i> . 2003;88(6):F472-F6. |
| 11. | Tawia S, McGuire L. Early weight loss and weight gain in healthy, full-term, exclusively-breastfed infants. <i>Breastfeeding Review</i> . 2014;22(1):31. |
| 12. | The Academy of Breastfeeding Medicine. Mastitis. United States of America. 2014. |
| 13. | The Academy of Breastfeeding Medicine. Persistent pain with breastfeeding. United States of America. 2016. |

| Related internal policies, procedures and guidelines |
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| The following documents can be accessed in the Community Health Manual via the HealthPoint link or the Internet link |
| Breastfeeding community health Policy – under review |
| Breastfeeding protection, promotion and support Guideline – under review |
| Growth faltering Guideline |
| Head circumference Procedure |
| Length examination 0-2 years Procedure |


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| Physical Assessment 0-4 years Guideline |
| Sleep Guideline |
| Universal contact Guidelines |
| Weight assessment 0-2 years Procedure |

| Related internal resources and forms |
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| The following resources and forms can be accessed from the HealthPoint CACH Intranet link |
| Breastfeeding Assessment Guide (CHS012) – available to download and print from the CACH Intranet Forms page |
| CACH approved external links and resources |
| Child and Antenatal Nutrition Manual |
| How children develop |
| Lactation Consultant Assessment (CHS013) - available to download and print from the CACH Intranet Forms page |
| WHO 0-6 months growth charts |

| Useful resources |
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| Staff resources Australian Breastfeeding Association Infant Feeding Guidelines |
| Parent resources Australian Indigenous HealthInfoNet Australian Breastfeeding Association Breastfeeding information. Australian Breastfeeding Association Breastfeeding Confidence e-Book Available in 12 languages. Healthy WA website KEMH “Breastfeeding and Breast care” – Booklet. KEMH Breastfeeding Centre About the services and breastfeeding information. Le Leche League International Breastfeeding Information in other languages MedlinePlus Breastfeeding Multiple languages Ngala |

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| Queensland Health Aboriginal and Torres Strait Islander Select breastfeeding. Queensland Health Multicultural Child Health Topics Select breastfeeding. Raising Children Network baby cues video Raising Children Network baby led attachment video Raising Children Network breastfeeding The Royal Women's Hospital Melbourne Breastfeeding Factsheets in other languages Scroll down to Breastfeeding. |
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This document can be made available in alternative formats on request for a person with a disability.

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Appendix A: Breastfeeding Assessment Guide – Page 1 of 2 only.



Government of Western Australia
Department of Health
Child and Adolescent Health Service

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| <p>CHILD AND ADOLESCENT COMMUNITY HEALTH</p> <p>BREASTFEEDING ASSESSMENT GUIDE</p> <p>Child Health Nurse Descriptive Checklist</p> | Surname: |
| | Given name: |
| | UMRN: |
| | Gender: D.O.B. |
| | Address: |

Mother's name Phone

| Normal indicators | Breastfeeding deviation from norm (Circle the relevant deviations) |
|---------------------------------|---|
| Maternal | |
| Nipples | Trauma, compression, pain, colour changes |
| Breasts | Pain, full, blocked ducts, reddened areas |
| Confidence/ Emotional health | Fatigue, frustrations, lacking confidence, use of lactation aids/infant formula, milk volume concerns, emotional health concerns |
| Infant | |
| Breastfeed | Unable to attach, detaching, shallow, frequency <2/24 or >4/24, length of feed >45 mins, non-nutritive suck:swallow >3:1, cry, cough, chokes, regurgitation, arching, falling asleep, dribbles, expressing, feeds better on one breast (head preference), respirations |
| Mouth, tongue, lips, palate | <p>Lingual frenulum attachment from tongue tip/mid to alveolar ridge/floor of mouth, inelastic, short</p> <p>Tongue distorted/heart shaped, lateralisation, muscle tone, elevation to palate, does not protrude over lips when oral gape >120 degrees</p> <p>Palate clefts visible</p> <p>Mouth/lips tight upper lip tie, asymmetrical mouth/lips, Candida in mouth, oral gape <120 degrees</p> |
| Posture, movements | Pain, positional turn/torticollis (R or L), tone, absence of flexion, unstable side lying/prone, pulled to sit difficult, asymmetrical limb movements or positioning, pushes away from breast |
| General behaviour | Unsettled, crying, dummy use +++, sleep and awake time according to age, jaundice, vomiting, regurgitation, tissue turgor, nappy rash |
| Elimination | <p>Urine: reduced volume, concentrated, offensive</p> <p>Faeces: transitional/brown, dry, hard, explosive, reduced bowel actions</p> |
| Anthropometric | <p>Birth wt discharge wt >7-10% wt loss since birth</p> <p>Current wt length HC</p> <p>Birth wt not regained by 2/52, static, slow or loss</p> |
| Risk Factors | Maternal birth complications, birth trauma, physical anomalies, prematurity, postnatal complications, poor maternal health, previous breastfeeding experience, delayed lactogenesis 2, relevant social determinants, caesarean section or instrumental birth |

Additional comments

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Name: Date:

Signature: Designation:

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BREASTFEEDING ASSESSMENT GUIDE
CHS 012

Appendix B: Breastfeeding deviations from normal – Clinical Protocols

When deviations have been identified the community health nurse (CHN) will implement brief intervention strategies including:

- Breastfeeding and lactation education.
- Information on understanding infant reflexes and cues.
- Skin to skin contact.
- Breastfeeding positioning and attachment using baby led attachment principles.
- Postural and handling information and demonstration.
- Providing details of community services.
- Encouraging family support.

When breastfeeding deviations are more complex community health nurses will refer to the relevant clinical protocols. These have been developed using collaborative professional expertise and current evidence from:

- [The Infant Feeding Guidelines 2012](#)
- [The Academy of Breastfeeding Medicine](#)
- [The Australian Breastfeeding Association](#)
- Supporting Sucking Skills in Breastfeeding Infants, Catherine Watson Genna (2013)

The following six (6) Clinical Protocols will be read in conjunction with the Breastfeeding deviations from normal Protocol:

- Dysfunctional suck.
- Maternal nipple pain and trauma.
- Unsettled infant.
- Hypolactation (Low milk volume).
- Hyperlactation (Oversupply).
- Maternal breast pain.

Dysfunctional suck

A general term used to describe infant anatomical and functional issues, that impact sucking skills; and may result in maternal breast and nipple pain.⁶

For additional information related to dysfunction suck refer to the following Clinical Protocols:

- Maternal nipple pain and trauma.
- Hypolactation.
- Maternal breast pain.

Identifying signs

Infant

- Discomfort/pain or deviations during postural assessment.
- Discomfort/pain during breastfeeding assessment.
- Reduced swallowing and milk transfer.
- Detaching, coughing, choking, and/or dribbling when feeding.
- Anthropometric measures and/or growth trajectory deviations.
- Reduced urine and stool volume.
- Breastfeeding frequency and duration deviations.

Maternal

- Nipple pain, discomfort, trauma, compression, colour changes.
- Breast pain or discomfort, fullness, engorgement, blocked ducts, mastitis.
- Delayed lactogenesis, reduced breastmilk volume.

Possible causes

- Oral – ankyloglossia, maxillary labial frenulum, tight temporomandibular joint, arched palate, candida.
- Posture and movement - head preferences; instability or unable to tolerate supine, prone, or side lying positions.
- Prematurity, gastroesophageal reflux, pre-existing medical conditions, birth trauma.
- Sub-optimal positioning and attachment.

Assessment

- The **Breastfeeding Assessment Guide** is used as part of a holistic assessment of the infant and the mother – including feeding efficiency, physical and growth assessment.
- Observe a breastfeed and assess the infant's position, breast attachment, evidence of nipple compression, colour changes upon detaching and evidence of milk transfer.
- Assess the infant's mouth for anatomical and functional deviations.
- Assess for postural and movement deviations.

Care planning

- Determine the possible cause of suck dysfunction and implement brief intervention strategies and/or refer to relevant Clinical Protocols.
- Discuss innate infant reflexes that aid in positioning and breast attachment.⁹
- Promote and provide information about baby led attachment and infant feeding cues. Refer parents to the [Raising Children Network - Breastfeeding and baby led attachment video](#).
- Discuss and demonstrate postural and handling exercises. Refer to CACH publications *Welcome to your new baby* magazine and *Baby Moves*.
- Alternative feeding methods may be required – Refer to Clinical Protocol: Maternal nipple pain and trauma.
- Maintain or increase breast milk volume - Refer to Clinical Protocol: Hypolactation.
- CHN review in 1-7 days to determine effectiveness of strategies.
- Referral to General Practitioner, Lactation Consultant, Paediatric dentist or relevant health professional for further assessment, where significant anatomical, functional or medical conditions are suspected; and/or infant is not responding to previously implemented strategies.

Maternal nipple pain and trauma

Nipple and breast pain is one of the most common reasons for breastfeeding cessation.¹

For additional information related to maternal nipple pain and trauma refer to the following Clinical Protocols:

- Dysfunctional suck.
- Hypolactation.
- Maternal breast pain.

Identifying signs

- Maternal reports of pain and deviations in skin integrity, colour, shape or discharge.

Possible causes

- Infant suck dysfunction
- Sub-optimal infant positioning impacting on breast attachment.
- Infant oral and/or postural deviations.
- Compromised skin integrity – eczema, bacterial infections, candida.
- Breast (and areolar) - fullness/engorgement,
- Nipple – nipple bleb, vasospasm, Raynaud’s phenomenon, inverted nipples.

Assessment

- The **Breastfeeding Assessment Guide** is used as part of a holistic assessment of the infant and the mother – including feeding efficiency, physical and growth assessment.
- Observe a breastfeed and assess the infant’s position, breast attachment, evidence of nipple compression, colour changes upon detaching and evidence of milk transfer.
- Assess oral, postural and movement deviations impacting on breastfeeding efficiency.
- Assess maternal pain description, duration, frequency, exacerbating factors (cold, initial attachment, expressing), pain relieving factors (warmth).
- Assess the nipples for trauma, compression, colour changes and discharge.

Care planning

- Determine the possible cause of the nipple pain and trauma and implement brief intervention strategies and/or refer to relevant clinical protocols.
- Refer to the Clinical Protocol: Dysfunctional suck for strategies relating to possible infant causes of maternal pain and recommended strategies.
- Alternative feeding methods may be required until the cause of maternal pain is identified and resolved. This may include nipple shields; or expressing breastmilk and feeding the infant using finger feeding, a syringe, cup, wide necked straight teat. Refer to [Women and Newborn Health Service – “Breastfeeding and Breast care”](#) resource for further information.
- Breast milk expression may be required if maternal pain prevents the infant breastfeeding:
 - Assess maternal knowledge about expressing and storing expressed breastmilk (EBM). Provide a copy of the WA Health pamphlet [“Expressing and storing breast milk”](#). Discuss milk removal via hand expressing or using a pump (manual, electric – single or double). Demonstrate hand expressing as required. Ensure the correct size breast shield is used when using a pump, as one that is too small can damage the nipple and will not adequately drain the breast.
 - Ensure the principle of supply (milk production) and demand (milk removal) is understood.
 - Develop a realistic expressing plan with the mother.
- Discuss reintroducing the infant to breastfeeding as soon as pain has resolved or is improving.
- Provide information to reduce nipple irritation and promote healing - such as using Modified lanolin, replacing damp breast pads frequently, avoiding shampoo and soap on the nipples.
- CHN review in 1-7 days to determine effectiveness of strategies.
- Referral to General Practitioner, Lactation Consultant or relevant health professional for further assessment, where significant anatomical, functional or medical conditions are suspected; and/or when maternal or infant issues are not responding to previously implemented strategies.

Unsettled infant

It is not uncommon for infants to have unsettled periods which can be distressing for parents.¹ Causes may be multifactorial and be related to a range of issues. It is important to conduct a holistic assessment to determine the possible cause of the infant's unsettled behaviour, so that appropriate strategies can be implemented.

For additional information related to unsettled infants refer to the following Clinical Protocols:

- Dysfunctional suck.
- Hypolactation.
- Hyperlactation.

Identifying signs

- Frequent and sustained crying.
- Signs of underlying medical conditions or illness.
- Decreased sleep and increased awake time relevant to age.
- Anthropometric measures and/or growth trajectory deviations.
- Breastfeeding duration, frequency and efficiency deviations.
- Signs of reduced parental confidence, fatigue and exhaustion.

Possible causes

- Normal developmental behaviour – adjustment to extra-uterine life, crying patterns.
- Pain – birth trauma, postural variations, immunisations, underlying medical conditions.
- Medical - temporary lactose overload, gastroesophageal reflux, ill health.
- Sleep deficits or unrealistic parental expectations of infant sleeping patterns.
- Feeding – breastfeeding deviations resulting in reduced milk transfer, incorrect infant formula preparation (diluted) or decreased volume to meet nutritional requirements, unrealistic parental expectations of infant feeding patterns.

Assessment

- The **Breastfeeding Assessment Guide** is used as part of a holistic assessment of the infant and the mother – including feeding efficiency, physical and growth assessment.
- Observe a breastfeed and assess the infant's position, breast attachment, evidence of nipple compression, colour changes upon detaching and evidence of milk transfer.
- Discuss unsettled behaviour including character of crying, frequency, duration, exacerbating factors or strategies that promote infant calmness.
- Infant sleeping, awake and settling patterns to determine age appropriateness.
- Maternal wellbeing, coping strategies and level of support.

Care planning

- Determine the possible cause of the infant's unsettled behaviour and implement brief intervention strategies and/or refer to relevant clinical protocols.
- Discuss age appropriate development including crying, feeding, sleeping, wakefulness, tired signs and settling strategies. Refer to [Sleep Guideline](#) and [Ngala Secrets of Good Sleepers table](#) for more information. Consider referral to Ngala the website and Helpline.
- CHN review in 1-7 days to determine effectiveness of strategies.
- Referral to General Practitioner, Lactation Consultant or relevant health professional for further assessment, where significant anatomical, functional or medical conditions are suspected; and/or when maternal or infant issues are not responding to previously implemented strategies.

Hypolaction (Low milk volume)

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Evidence suggests that approximately 25-35% of mothers prematurely introduce infant formula or cease breastfeeding due to perceived breastmilk insufficiency.¹ The majority of mothers have the capacity to lactate efficiently, however, in rare circumstances, maternal illness or insufficient glandular tissue development and breast surgery may impact breastmilk volume.¹ In these cases, partial breastmilk production may be possible.

For additional information related to low milk volume refer to the following Clinical Protocols:

- Dysfunctional suck.
- Maternal nipple pain and trauma.
- Unsettled infant.
- Maternal breast pain.

Presenting signs

Maternal

- Delayed lactogenesis – no evidence of initial breast fullness or milk leakage by Day 3-4 postpartum.
- Pathological engorgement impacting on milk flow and removal.

Infant

- Dysfunctional sucking.
- Growth trajectory deviations including:
 - Greater than 7-10% of birth weight in the first week following birth.^{10, 11}
 - Weight loss following the infant having previously returned to birth weight.
 - Not returned to birth weight by 2-3 weeks of age.¹⁰
- Reduced elimination – concentrated and offensive urine; brown, dry or firm stools.
- Elevated serum bilirubin levels relevant to age.
- Behaviour/Appearance – may be unsettled, decreased alertness, poor skin turgor, pale skin colour, sleep deficits. *NOTE: unsettled infant behaviour has many possible causes and therefore breastmilk volume should not be considered the only cause of unsettled behaviour.*

Possible causes

Maternal

- Medical – breast hypoplasia, Type 1 Diabetes, Polycystic Ovarian Syndrome, Hypothyroidism, obesity, Infertility, breast surgery.
- Birth complications - Retained placenta, Postpartum Haemorrhage, Maternal pain associated with birth intervention, intravenous fluids during labour.
- Medications/Substances - oral contraceptive pill, some cold and flu medications, nicotine, alcohol and some recreational drugs.
- Delayed or reduced milk removal resulting from inappropriate expressing plans.

Infant

- Dysfunctional sucking.
- Delayed or reduced opportunities to breastfeed - inappropriate feeding routines impacting on feeding cues; use of supplements including infant formula, water and/or solids.

Assessment

- The **Breastfeeding Assessment Guide** is used as part of a holistic assessment of the infant and the mother – including feeding efficiency, physical and growth assessment.
- Observe a breastfeed and assess the infant's position, breast attachment, evidence of nipple compression, colour changes upon detaching and evidence of milk transfer.
- Determine maternal pre-existing medical conditions.
- Assess the nipples and breasts for anatomical variations.

Hypolactation (Low milk volume)

(Page 2 of 2)

Care planning

- Determine the possible cause of low milk volume and implement brief intervention strategies and/or refer to relevant clinical protocol.
- Aim to increase breastmilk volume whilst meeting the infant's nutritional requirements for growth and development.
- Increasing breastmilk volume:
 - Increase feeding frequency and offer both breasts at each feeding session.
 - Allow baby to stay on each breast until milk transfer (swallowing) has ceased, then offer second breast.
 - Consider a top up breastfeed 20 to 30 minutes following the initial breastfeed.
 - Massage or stroke the breast towards the nipple whilst the infant is breastfeeding.
 - Consider breastfeeding for infant comfort rather than using a dummy to settle.
 - Develop a realistic expressing plan with the mother. Provide a copy of the WA Health pamphlet ["Expressing and storing breast milk"](#). Determine how milk will be expressed - hand expressing or using a pump (manual, electric – single or double). When using a pump determine the correct breast shield size is used and that the pump is working.
 - Consider referral to General Practitioner to discuss pharmaceutical galactagogues.
- Assess maternal knowledge about milk production, supply and demand, normal breast softening around 6 weeks postpartum associated with Lactogenesis 3.
- Alternative feeding methods may be required if growth faltering has been identified – expressing breastmilk and feeding the infant using finger feeding, a syringe, cup, or wide necked straight teat. Refer to [Women and Newborn Health Service – "Breastfeeding and Breast care"](#) resource for further information on feeding infants breastmilk.
- If medically indicated and in the absence of available expressed breastmilk, complementary feeding with infant formula may be required using finger feeding, a syringe, cup, or wide necked straight teat. Refer to the [Infant Feeding Guidelines Infant Formula](#) chapter for further information.
- CHN review in 1-7 days to determine effectiveness of strategies.
- Referral to General Practitioner, Lactation Consultant or relevant health professional for further assessment, where significant anatomical, functional or medical conditions are suspected; and/or when maternal or infant issues are not responding to previously implemented strategies.

Hyperlactation (Oversupply)

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Some mothers find they have excess milk causing temporary difficulties. Hyperlactation is usually more common in the early days or weeks of lactation and breastfeeding, however for some mothers can persist for longer.¹

For additional information related to oversupply refer to the following Clinical Protocols:

- Dysfunctional suck.
- Maternal nipple pain and trauma.
- Unsettled infant.
- Maternal breast pain.

Presenting signs

Maternal

- Persistent full breasts that may be lumpy, fill quickly and leak milk excessively.
- May have a forceful milk ejection reflex.
- May have a history of recurrent engorgement, blocked ducts, or mastitis.

Infant

- Dysfunction sucking.
- May only require the volume of milk from one breast for each feeding session (beyond normal expected timeframes).
- Behaviour - may be overly unsettled; *NOTE: unsettled infant behaviour has many possible causes and therefore breastmilk volume should not be considered as the only cause of unsettled infant behaviour – Refer to Appendix X: Unsettled infant.*
- Symptoms associated with temporary lactose overload or gastroesophageal reflux.
- Elimination - frequent bowel actions that may be frothy, explosive, green in colour and resulting in anal excoriation; increased urine output.
- Often excessive weight gain. However, inadequate weight gain may be evident in cases where hyperlactation and galactostasis, have resulted in decreased breastmilk volume.

Possible causes

- Temporary oversupply may be associated with the onset of Lactogenesis 2.
- Delayed diagnosis and management of infant or maternal deviations.
- Specific diseases or medications that impact on dopamine secretion.
- Hypothalamic-Pituitary tumours (rare).

Assessment

- The **Breastfeeding Assessment Guide** is used as part of a holistic assessment of the infant and the mother – including feeding efficiency, physical and growth assessment.
- Observe a breastfeed and assess the infant's position, breast attachment, evidence of nipple compression, colour changes upon detaching and evidence of milk transfer.
- Determine maternal and infant pre-existing medical conditions or potential medical conditions.
- Assess the nipples and breasts assessing for pain, fullness, blocked ducts, mastitis, nipple integrity, colour, compression, discharge and milk volume.
- Obtain a feeding history – frequency, duration of each feed, number of breasts used at each feeding session.

Hyperlactation (Oversupply)

Care planning

- Determine the possible cause of oversupply and implement brief intervention strategies and/or refer to relevant clinical protocols.
- Aim to adjust the breastmilk volume by decreasing overstimulation whilst meeting the infant's nutritional requirements:
 - Recognise infant feeding cues and breastfeed according to infant's need (avoid scheduled feeding or timed duration of feeding sessions).
 - Allow infant to feed from one breast until satiated. If the infant requires another breastfeed within 3-4 hours, consider feeding from the same breast. This is called 'block feeding' and allows the infant to receive high caloric breastmilk which may assist with decreasing the volume the infant removes (breast emptying). If this strategy is implemented ensure the 'second breast' does not become engorged.
 - Expressing a small amount before breastfeeding may promote breast drainage and assist the infant to consume high caloric breastmilk.
 - Offer the 'second breast' in the next block of time. The block of time will depend on the degree of oversupply the mother is experiencing.
 - Decrease non-nutritive breastfeeding by offering alternative comfort strategies rather than breastfeeding.
- When breasts remain uncomfortably full consider expressing for 'comfort' (if the infant is not ready to breastfeed). Provide a copy of the WA Health pamphlet ["Expressing and storing breast milk"](#).
- A cool pack placed under the breast between feeds may offer comfort.
- Reassure mother that the excessive milk volume is usually a temporary problem and resolves with time.
- Provide anticipatory guidance on engorgement, blocked ducts, and mastitis.
- Some mothers perceive that if their baby is unsettled they have a low milk volume. Assess maternal knowledge about efficient milk transfer, milk production, supply and demand, normal breast softening around 6 weeks postpartum associated with Lactogenesis 3; and infant growth and development.
- CHN review in 1-7 days to determine effectiveness of strategies.
- Referral to General Practitioner, Lactation Consultant or relevant health professional for further assessment when an underlying medical condition is suspected and/or when maternal or infant issues are not responding to previously implemented strategies.

Maternal breast pain

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Maternal breast pain may be associated with the following issues:

Engorgement is the distension of the breast that occurs as milk production increases, typically on the third to fifth day after birth, leading to overfilling of the breasts.^{1, 5} Engorgement associated with maternal pain can result in pathological engorgement where milk is unable to leave the breast. Lactational mastitis is inflammation of the breast tissue which may or may not be caused by a bacterial infection. However, there appears to be a continuum from engorgement to non-infective mastitis to infective mastitis, and to breast abscess (a localised area of pus).¹² Blocked ducts result in milk building up behind the blockage and forming a painful lump, sometimes with associated engorgement and the presence of a white spot (bleb) on the nipple. Candida infection can be difficult to identify as the nipples and breasts may look normal and milk culture may be unreliable.¹³ Candida is usually suspected when other causes of breast pain have been eliminated.¹³

For additional information related to maternal breast pain refer to the following Clinical Protocols:

- Dysfunctional suck.
- Maternal nipple pain and trauma.
- Unsettled infant.

Presenting signs

- Engorgement presents as firm, full breasts.⁶
- Mastitis presents as tender, hot, swollen, wedge-shaped area of breast associated with temperature of 38.5 C or greater, chills, flu-like aching, and systemic illness.¹²
- Abscess formation presents as a well-defined painful mass of the breast remaining hard, red, and often a fever, despite appropriate mastitis management.¹²
- Blocked ducts may present as a painful lump that may be red or hot.¹²
- Candida presents as symptoms of radiating, shooting, burning pain 'like red-hot needles'.^{1, 12}

Possible causes

- Factors associated with milk stasis or inadequate milk removal may include:
 - Infant dysfunctional sucking.
 - Sub-optimal positioning and attachment to the breast.
 - Blocked ducts, nipple white spot (bleb) or hyperlactation.
 - Inappropriate expressing.
- Underwire bra pressure.
 - Ductal abnormalities.
- Changing feeding patterns
 - Infrequent feeding or decreased feeding from usual pattern.
 - Scheduling the frequency or duration of feeding sessions.
 - Use of supplements including formula, water and/or solids.
 - Abrupt weaning.
- In addition, factors that may predispose to mastitis include nipple trauma especially if colonised with *Staphylococcus aureus*; maternal or infant illness; and maternal stress and fatigue.
- Repeated courses of antibiotic therapy and infant oral Candida increase the risk of maternal nipple and ductal Candida.

Assessment

- The **Breastfeeding Assessment Guide** is used as part of a holistic assessment of the infant and the mother – including feeding efficiency, physical and growth assessment.
- Assess maternal pain description, duration, frequency, exacerbating and pain relieving factors.
- Observe a breastfeed and assess milk transfer.

Maternal breast pain

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Care planning

- Determine the possible cause of maternal breast pain and implement brief intervention strategies and/or refer to relevant clinical protocols.
- Aim to increase breastmilk drainage:
 - Refer to Clinical Protocol: Dysfunctional suck, for infant causes and recommended strategies.
 - Express prior to breastfeeding to soften breasts/areolar and aid in attachment.
 - Encourage unrestricted feeding without limiting the time at the breast.
 - Breastfeed from the affected breast first, gently stroke towards the nipple, and change positions to promote drainage from different quadrants.
 - Reattaching the infant after the first milk ejection reflex can assist with an even deeper attachment, resulting in increased breast drainage.
 - Ensure the first breast is drained before offering the second breast.
 - When feeding from the unaffected breast remove bra to allow breastmilk drainage.
 - Breast milk expression may be required following breastfeeding, if maternal discomfort and engorgement persists.
 - Cool packs or cool cloths (from the refrigerator not freezer) can relieve swelling associated with excess fluid.
 - Avoid using a dummy or complementary feeds.
- Relieving pain:
 - Cool packs or cool cloths (from the refrigerator not freezer).
 - Discuss use of non-steroidal anti-inflammatory medication (e.g. ibuprofen), which will reduce inflammation and pain, or paracetamol to ease discomfort and pain.
- If a white spot (bleb) is present soak the nipple with a warm moist cloth, and rub or scratch it off using a sterile needle, followed by expressing or feeding the infant, to allow the milk to flow again.
- When a mother presents acutely unwell with mastitis, refer immediately to a General Practitioner for further assessment and management. A penicilline-resistant penicillin such as Flucloxacillin for 10-14 days is usually prescribed.¹² Provide anticipatory guidance on repeated courses of antibiotics increasing the risk for breast and vaginal Candida infections.¹² Discuss strategies to increase breastmilk drainage. Reinforce that weaning at this time is not advisable, due to the risk of pathological engorgement and abscess formation. If breastfeeding is too painful expressing with an electric pump is recommended. For more information on feeding infants expressed breastmilk using finger feeding, a syringe, cup, or wide necked straight teat, refer to the [Women and Newborn Health Service – “Breastfeeding and Breast care”](#) resource. Discuss reintroducing the infant to breastfeeding as soon as possible, when issues have improved or resolved.
- If Candida is suspected refer to a Pharmacist or General Practitioner for further assessment and management. A topical antifungal ointment, cream or oral Fluconazole may be prescribed for maternal nipple or ductal Candida.¹³ Nystatin suspension or Miconazole oral gel may be prescribed for infant oral Candida.¹³
- CHN review in 1-7 days to determine effectiveness of strategies.
- Referral to General Practitioner, Lactation Consultant or relevant health professional for further assessment when an underlying medical condition is suspected; and/ or when maternal or infant issues are not responding to previously implemented strategies.

Appendix C: Breastfeeding deviations from normal – Clinical Pathway

Identification of Feeding Deviations

At all contacts enquire about breastfeeding and lactation efficiency using the Breastfeeding Assessment Guide as a checklist

