MATERNITY AND NEONATAL UNIT
GUIDELINE:

TONGUE TIE (ANKYLOGLOSSIA) MANAGEMENT AND REFERRAL

SCOPE:
Maternity and Neonatal Unit

AUTHOR:
NNU Quality Coordinator

PURPOSE:
To provide a framework for assessment of tongue tie, referral and procedural guidance if frenotomy (snipping of the frenulum) is undertaken.

DEFINITIONS:
The sublingual frenulum attaches the tongue to the floor of the mouth. There is a spectrum of what is considered normal.

Ankyloglossia, also known as tongue tie, is characterised by the presence of a thickened, tightened or shortened sublingual frenulum that changes the appearance of the infant's tongue. In some cases, there can be change in the function of the tongue which can cause significant breast feeding difficulties.

Complete ankyloglossia in which there is extensive fusion of the tongue to the floor of the mouth is very rare.

Frenotomy is a simple incision or snipping of a tongue-tie.

The reported incidence is between 2.8 and 10.7% of infants (Berry 2012).

In the published literature there is disagreement regarding the significance of tongue ties, the timing of any intervention and who the most appropriate person is to carry out any intervention. This guideline cannot unify varying opinions and should be used as a guide to the current practice in Hauora Tairāwhiti.

GUIDELINE:
All infants, whether healthy or ill, should have an examination of the mouth as part of their newborn examination. The goal of this examination is to identify any abnormalities of the oral cavity of which anklyoglossia is only one.

If tongue tie is suspected and ascertained to be a cause of breast feeding complications, a full assessment of the baby's anatomy and feeding should be done prior to referral.

Before considering this procedure, the baby should be in good general health and have a normal newborn examination.

Bottle fed babies can also have feeding difficulties with tongue tie.

Assessment

There is no single reliable tool for assessment that will adequately predict the degree of problems of an individual baby.

Some tongue ties are asymptomatic and cause no problems. Not all infants with tongue tie will need intervention other than good breast feeding support and guidance. There is no relationship between frenulum length and feeding difficulties.

The **symptoms** that the tongue tie causes are the focus of assessment.

Breast feeding difficulties resulting from tongue tie can present as problems latching on the breast. This causes nipple pain and damage, prolonged feeding, poor weight gain and frequent inefficient feeding. Mastitis may occur and lactation may be impaired due to poor drainage of the breasts.

The tongue-tie can be described by the appearance of the tongue and the frenulum, the tongue's range of movement both transverse and laterally, and ability to extend the tongue forward over the lower lip or gum.

Infant signs and symptoms *may* include:

- Poor latch or inability to latch
- Weak suck
- Clicking sound while nursing (snap-back, loss of suction)
- Difficulty in establishing an adequate seal and vacuum in the mouth to maintain a deep grasp on the breast
- Chewing and biting down on the nipple
- Falling asleep at the breast having not fed well
- Ineffective milk transfer
- Weight loss, dehydration, jaundice
- Inadequate weight gain
- Irritability and unsettledness
- Fussiness and frequent arching away from breast
- Fatigue within one or two minutes – can get jaw tremors

Assessment tools are available for midwives/nurses/doctors who wish to use them. Observation of feeding is essential.

The following assessment tool should be used with caution by practitioners who have not had specific training as the ability to elicit specific reflexes and score a baby's best performance is essential if there is a wish to avoid over diagnosis.

- The Hazelbaker Assessment Tool for Lingual Frenulum Function (HATLFF). (See appendix 1).
- Catherine Watson Genna (Ed) (2012) *Supporting Sucking Skills* 2nd edition has useful assessment information. Also available on her website: Quick Help

Midwives/Lactation consultants – a referral to a community-based lactation consultant for follow up after discharge from maternity should be completed, see Tongue Tie Pathway (appendix 2).

It is essential that breast feeding is observed to eliminate other reasons for breast feeding difficulties which may be resolved with repositioning and improved feeding technique.

Bottle feeding
Tongue-tie can cause bottle feeding difficulties which can present as very slow feeding, dribbling and excessive wind.

Referral
- Referrals can be made to the IBCLC qualified core midwives or the Community Lactation Consultant Service. The Lactation Consultant can assess the anatomy and function of the oral cavity, breastfeeding issues and identify tongue-tie and, if necessary, outline treatment options to parents. To refer to the IBCLC qualified core midwives, LMC or staff should complete a Lactation Consultant Referral in the baby's MCIS record and print this for the LC and either hand it to her or it can be left in the LCs pigeon hole in the maternity office
- Referral to the community LC service should only be sent if no in-patient LC support is available or for follow-up once discharged from maternity. E-mail clinical details to info@breastfeedingeastcoast.nz or ring 021 170 9208. The Community Lactation Consultant will refer to the appropriate treatment provider (see appendix 2 - Tongue Tie Care Pathway).
- Hauora Tairāwhiti Credentialed Midwives can accept referrals for simple frenotomies if the baby is still under midwifery care and >24 hours old but <6 weeks old. Midwives are able to include frenotomy in their scope of practice if they have completed appropriate training and demonstrate competence in the procedure (Midwifery Council 2011). It is recommended that midwives only treat anterior (type 1 and 2) tongue ties.
- ENT referrals: ENT will accept referrals for complex frenotomies directly from LCs and only once a full breastfeeding assessment has been completed (see appendix 2 - Tongue Tie Care Pathway).

Vitamin K – prior to a frenotomy all babies must have had Vitamin K administered either at birth or at least one day prior to the procedure, with informed consent from the parents. IM Vitamin K is recommended.

Informed consent
It is important that parents have the procedure and any risks explained prior to agreeing to it. Written consent should be obtained using a Hauora Tairāwhiti Consent Form.

Pain relief
Babies appear to experience division of the tongue tie as "virtually pain free" (Amir 2011). However, sucrose solution 66% 0.2-0.5 ml may be given with parental consent prior to the procedure as pain relief (see guideline).

Frenotomy procedure
The baby should be swaddled securely and an assistant should stabilise the head. This procedure is usually performed with sharp blunt ended scissors which are used to divide the frenulum by 2-3 mm. A grooved retractor can be used. Complications are rare but include prolonged post-operative bleeding, ulceration, infection and damage to salivary ducts, reoccurrence of the tongue tie and oral aversion.

Hepatitis C positive mothers are advised that breast feeding should be postponed until the wound has healed.

Following frenotomy
Following the procedure infants should be observed for any bleeding. The parent(s) should be advised by the LC about post frenotomy care and, if needed, stretching exercises. This is important to prevent reoccurrence of the tongue tie.

It is essential that after frenotomy has been performed, there is support and guidance to assist effective breast feeding and resolve any issues such as sore nipples or mastitis. It is also important that there is follow up by LMC or referring agency to provide continued support with feeding where required and evaluate and document outcomes from the procedure.

Management of Anklyloglossia without Frenotomy

Infants who are unable to correct their suck can benefit from assessment and a breast feeding plan (see appendix 3 – Non-latching baby care plan) which includes:

- Maintaining a full milk supply with regular expressing
- Focusing on a deep asymmetrical latch
- Maintain practice at the breast after partial alternate feeding
- Oral exercises to reduce posterior tongue elevation and retraction

Management of breast feeding difficulties while awaiting assessment

It is important to have a breast feeding plan in place in order to feed the baby and support breast milk supply (see appendix 3 – Non-latching baby care plan)
Strategies to consider include:

- Feeding position can facilitate improved ability to achieve a latch; laid back or upright deep latching positions
- Nipple shield if nipples are sore
- Finger feeding
- Topping up the baby with EBM
- Expressing after feeding to ensure adequate stimulation to promote lactation

ASSOCIATED DOCUMENTS:

Sucrose analgesia for simple neonatal procedures NNU guideline

Vitamin K administration to a newborn baby Maternity and NNU guideline

Use of nipple shields – Maternity and NNU guideline

Appendix 1 - Hazelbaker Assessment Tool for Lingual Frenulum Function (1998 version)

Appendix 2 – Tongue Tie Care Pathway

Appendix 3 – Non-latching baby care plan

Appendix 4 – Hauora Tairāwhiti Frenotomy consent form

REFERENCES:

Watson Genna, Catherine (ed) (2012). *Supporting Sucking Skills in Breast Feeding Infants* (2nd Ed)

Burrows, Sally; Lanlehin, Rosemary (2015). Is frenotomy effective in improving breastfeeding in newborn babies with a tongue tie? A literature review. British Journal of Midwifery 23.11

Edmunds J, Miles S.C, Fulbrook P. (2011) Tongue Tie and breastfeeding; review of literature. Breastfeeding Review 2011 Mar 19(1); 19-26

Canadian Paediatric Committee, Canadian Paediatric Society(CPS) Ankylglossia and breastfeeding. Paediatrics and Child Health 2002; 7(4), 269-70

NICE Interventional Procedural Guidance 149 Division of ankylglossia for breastfeeding. December 2005

Berry J, Griffiths M, Westcott C 2012, A double-blind, randomized, controlled trial of tongue-tie division and its immediate effect on breastfeeding. *Breastfeed Med* 7:189-193

Authorised By (HOD Paediatrics)

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Authorised By (Clinical Care Manager Woman, Child & Youth)

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Appendix 1 Tongue-tie assessment, Lactation Consultant Services.

Mothers Name:
……
NHI:
……

Baby's Name: ……
NHI: ……
DOB: ……
Age at assessment: ……

Medical History……
Supplementation during pregnancy: □ Folic Acid beyond 15wks □ Elevit/Blackmores
Medications during Pregnancy: ……
BF History: …… Family History: ……
Osteopath Treatment:

FUNCTION		2 wk	APPEARANCE		2 wk
Lateralization			**Appearance of tongue when lifted**		
Complete	2	2	Round or Square	2	2
Body of tongue but not tongue tip	1	1	Slight cleft in tip apparent	1	1
None	0	0	Heart shaped	0	0
Lift of Tongue			**Length of lingual frenulum when tongue lifted**		
Tip to mid mouth	2	2	More than 1cm OR Absent frenulum	2	2
Only edges to mid mouth	1	1	1 cm	1	1
Tip stays at alveolar ridge OR tip rises only in mid mouth with jaw closure AND/OR mid tongue dimples	0	0	Less than 1 cm	0	0
Extension of Tongue			**Attachment of lingual frenulum to inferior alveolar ridge**		
Tip over lower lip	2	2	Attached to floor of mouth or well below ridge	2	2
Tip over lower gum only	1	1	Attached just below the ridge	1	1
Neither of the above OR anterior or mid tongue humps and/or dimples	0	0	Attached to ridge	0	0
Spread of anterior tongue			**Elasticity of lingual frenulum**		
Complete	2	2	Very Elastic (excellent)	2	2
Moderate OR Partial	1	1	Moderately Elastic	1	1
Little or none	0	0	Little OR no Elasticity	0	0
Cupping of tongue			**Attachment of lingual frenulum to tongue**		
Entire Edge	2	2	Posterior to tip	2	2
Side edges only, moderate cup	1	1	At tip	1	1
Poor OR no cup	0	0	Notched OR under the mucosa at the tongue base	0	0
Peristalsis (Progressive contraction)			**OTHER:**		
Complete anterior to posterior (Originates at tip)	2	2	Sucking Blisters yes / no		
Partial-Originating posterior to tip	1	1	Lip Tie □Type 1 □ Type 2 □Type3 □Type 4		
None OR Reverse peristalsis	0	0	□Small Gape □ Wide gape		
			Palate □Narrow □Bubble		
Snap Back			**Recommendations**		
None	2	2	**14**-Perfect F score regardless of A score-Treatment not recommended		
Periodic	1	1			
Frequent OR with each suck	0	0	**11**-Acceptable F score only if A item score is 10 **<11** F score indicates F impaired. Frenotomy should be considered if management fails. **<8** Treatment necessary		
TOTAL FUNCTION SCORE			**TOTAL APPEARANCE SCORE**		
Tongue elevated to midline or above when crying or with jaw drop when asleep: □yes □no			**Type 1 2 3 4 Tongue tie**		

SYMPTOMS			
BABY		**MOTHER**	
Latching: Inability to latch/slips off/Sustains good latch		Creased/Blanched/flattened/ridged nipples	
Suck swallow: Inco ordinated/Coordinated		Cracked/bruised/blistered/bleeding/eroded	
Suction: Poor suck/seal-Milk leaks out sides of mouth		Nipple pain at beginning/throughout/end	
Clicks/Clunks heard		Nipple vasospasms-purple/blanched/throb	
Clamping/chewing/biting on the nipple		Nipple infection	
Jaw/tongue tremors		Lactogenesis ll- on time/delayed	
Tongue Thrusting/humping		Let-downs are weak/strong/inhibited	
Activity: Active/ Falls asleep or fatigued/Fussy		**Breast drainage:** complete/half/incomplete	
Milk transfer: Good rhythmic/++sucks & min swallow/none		Plugged ducts	
Weight loss/static weights/slow gainer		Mastitis	
Irritable/ unsettled/ windy		Thrush	
Reflux-Spills often		Reduced /low milk supply	
Prolonged feeding times/short snack feeds		Mum feels frustrated/tired/ disappointed	
Unsatisfied hunger after prolonged feeds		Having to express Freq: Amnt:	
Needing formula top ups-Amount:		Others:	
Others:			
Length of feed: <5-10mins 15-30mins >40-60mins		Frequency:	
Length of sleeps:		Observations:	

CHECKLIST			
Risks & Benefits explained		TREAT/MANAGE/LEAVE	
History of blood clotting disorders yes/ no Details:		Referral has been sent ENT Carol OTHER……..	
Vitamin K has been given Oral/ IM/None		Appt/treatment date:	
Parent info given		Declined treatment: yes/ no Reason:	
Hep b/Hep c/HIV present yes/no		LMC is aware and agreeable to procedure	
After care and procedure have been explained			

OUTCOMES:			
Treated by:		BF status at DX: Exclusive Fully Partial AF	
Treatment Date:			
100% Improvement/ Some / None			
Complications:		Overall outcome:	
Re-joined: yes /no		100% Improvement/ Some/None	
Re-released by:			

BABY'S NHI:

Appendix 2

TONGUE TIE CARE PATHWAY

CURRENT PATHWAY FOR ASSESSMENT AND TREATMENT OF TONGUE TIE AND LIP TIE IN THE NEWBORN:

For suspected tongue restriction - a full breastfeed assessment and tongue function assessment using HATLFF* is to be completed. This can only be done by IBCLC's and midwives who have completed the approved Tongue and Lip tie training session. If no staff available to complete HATLFF* then refer to Community LC Service.

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Breastfeeding, lactation and optimal infant nutrition will be supported by core staff with a clear plan documented by maternity staff until discharge.

Full breastfeeding assessment and plan - see the "non-latching baby care plan" non latching baby 2 - Iidil 2017.doc

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Babies with anterior tongue ties can be referred by LC to Certified Midwives for treatment as soon as possible after 24hrs of age. Severe posterior ties that require urgent attention can be referred to ENT by an IBCLC while an inpatient. For all other posterior and non-urgent ties, a referral to Community LC Service is recommended.

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Prior to referral to a treatment provider all guardians of infants must have:
1. A full consultation on benefits, risks and cost of treatment.
2. Informed consent for treatment.
3. Read all information as well as viewed treatment procedure and post-care videos on www.breastfeedingeastcoast.nz.

This can only be done by certified staff as above.

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All infants with suspected ties should be referred to Community LC service for follow up care on discharge from the unit. This should be done in consultation with the LMC.

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The Community LC/inpatient LC will provide a full assessment, diagnosis and referral to best available treatment provider in consultation with the infant's parents.

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The Community LC/inpatient LC will continue to provide support prior to and following the treatment date. If the treatment appointment is no longer necessary or parents have changed their minds, the Community LC must contact ENT outpatients to cancel the appointment as soon as possible.

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Community LC will provide 2 post release follow up appointments at 1 week and 2 weeks post procedure as well as any verbal follow up required until breastfeeding issues are resolved.

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If a re-release is required, the Community LC will refer and follow up as necessary.

*HATLFF- Hazelbaker Assesment Tool for Lingual Frenulum Function.
Compiled by Janet McGuinness. Community IBCLC 2016

Appendix 3

Plan of Action for the non-latching full-term healthy baby

From 0 to 24 hours old (day 1)

- ❑ Initiate and maintain skin-to-skin with the mother and encourage laid-back positions and biological nurturing: utilizing the baby's instinctual reflexes is very important.
- ❑ Teach the mother about the early feeding cues, i.e. wriggling, bringing hand to mouth, rooting; ensure she knows to facilitate feeding **immediately** when the baby shows these cues.
- ❑ Continue to observe the baby's vital signs regularly and observe for symptoms of hypoglycaemia (**blood testing not indicated if asymptomatic**). Initiate paediatric review if outside the range of normal.
- ❑ Be patient and reassuring to the mother as long as the baby's condition is satisfactory.
- ❑ Hand express breastmilk if baby tried to breastfeed and was unsuccessful. Finger-feed, spoon feed or slowly trickle the tiny volumes into the corner of the baby's mouth from a syringe if the baby is swallowing adequately.
- ❑ Begin hand expressing breastmilk within 6 hours of birthing and regularly 3 hourly thereafter – this will stimulate prolactin receptors and protect milk supply for later on.
- ❑ The average volume of breastmilk taken in the first 24hrs is 37ml - 56ml

From 24 to 48 hours old (day 2)

- ❑ Continue skin-to-skin
- ❑ Continue regular observations of vital signs and also monitor for signs of hypoglycaemia and/or dehydration.
- ❑ Attempt to rouse and interest baby in breastfeeding every 3 hours. If unsuccessful ... then
- ❑ Feed the Baby! Average breastmilk volume taken during the second 24 hours is 5 - 15ml per feed with a 24-hour volume of 84ml. This should be your goal. This does not mean top-up with formula if this volume is not available.
- ❑ Cup, finger or spoon feed the breastmilk to the baby. Howard et al (2003) found that giving more than 2 supplements using a bottle can lead to discontinuation of exclusive, and any, breastfeeding.
- ❑ Continue regular hand expressing at least 8 times per 24 hours (3 hourly).

From 48 to 72 hours old (day 3)

- ❑ Continue all strategies as above and consider weighing baby – this can confirm whether the feeding plan is adequate, or indicate need for further review of plan. (maximum weight loss is usually day 3/day 4 if baby is having adequate feeds).
- ❑ Ensure thorough assessment of possible reasons for breastfeeding difficulties has taken place, consult with Lactation Consultant (maternity or NNU as available or community LC), consider LC referral.
- ❑ Continue regular hand expressing, can consider introducing use of a breast pump, remember largest expressed milk volumes are obtained with "hands on pumping".
- ❑ Average volume of breastmilk taken is 120ml to 240ml per day, or about 8 feeds of 15ml-30ml/feed - or less volume more frequently depending on the volume the mother is able to express each time – carefully consider suitable method of giving supplementary feed, for larger volumes lact-aid at breast or cup feeding are recommended, but method must be acceptable and manageable for parents.

From 72 to 96 hours old (day 4)

- ❑ Lactogenesis II should have occurred by now.
- ❑ Continue all strategies as above, consider weighing baby or re-weighing.
- ❑ Average daily volume of breastmilk taken is 240ml – 360ml, or about 8 feeds of 30ml-45ml/feed. Carefully consider suitable method of giving supplementary feed: for larger volumes lact-aid at breast or cup feeding are recommended, but method must be acceptable and manageable for parents.
- ❑ Ensure adequate follow up is organised if considering discharge home.
- ❑ Consider LC referral to community LC if not already in place.

From 96 hours old for the rest of the first week (first week after day 4)

- ❑ Continue all strategies as above, consider weighing baby or re-weighing.
- ❑ Average daily volume of breastmilk taken is 300ml-600ml, or about 8 feeds of 45ml-60ml/feed. Carefully consider suitable method of giving supplementary feed: for larger volumes lact-aid at breast or cup feeding are recommended, but method must be acceptable and manageable for parents.
- ❑ Ensure adequate follow up is organised if considering discharge home. Consider LC referral to community LC if not already in place.

Appendix 4

Frenotomy Consent Form

I, _____ am the legal guardian of baby: _____,

born on:_____.

I give consent for _____ to perform a frenotomy to release my baby's

tongue-tie.

□ I have read and understand the Tongue & Lip tie information.
□ I understand the procedure my baby will undergo.
□ I understand the risks and benefits of the procedure.
□ My baby has had Vitamin K IM or 3 doses of Oral.
□ I do not have Hepatitis C or B.
□ There are no known history of blood clotting disorders in our families.
□ I understand the aftercare exercises and that they need to be done regularly to avoid a re-joining of the wound.

Guardian's Signature: _____ Date: _____

Printed name: _____

Health Professional's Signature: _____

Printed name: _____ Date: _____ Designation: _____

Mother's NHI: _____ Baby's NHI: _____

E Tipu E Rea Criteria Completed: □