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Friday, August 09, 2019

(Room 5)

16:30 - 18:30 WS #54: Paediatric Forum (120mins, not repeated)

Tongue-Tie: Back on Track for Mothers and Babies

Dr Bronwyn Dixon and Dr Juliet Gray

Outline

Terminology

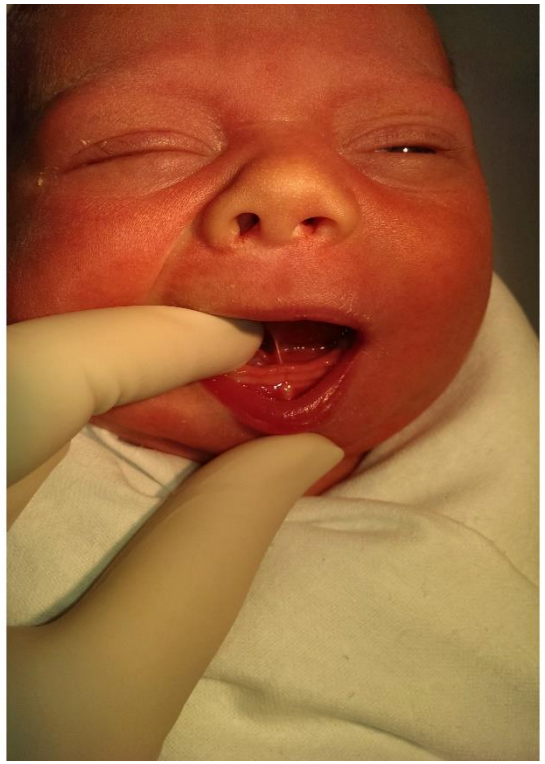
Background situation

BTAT scoring

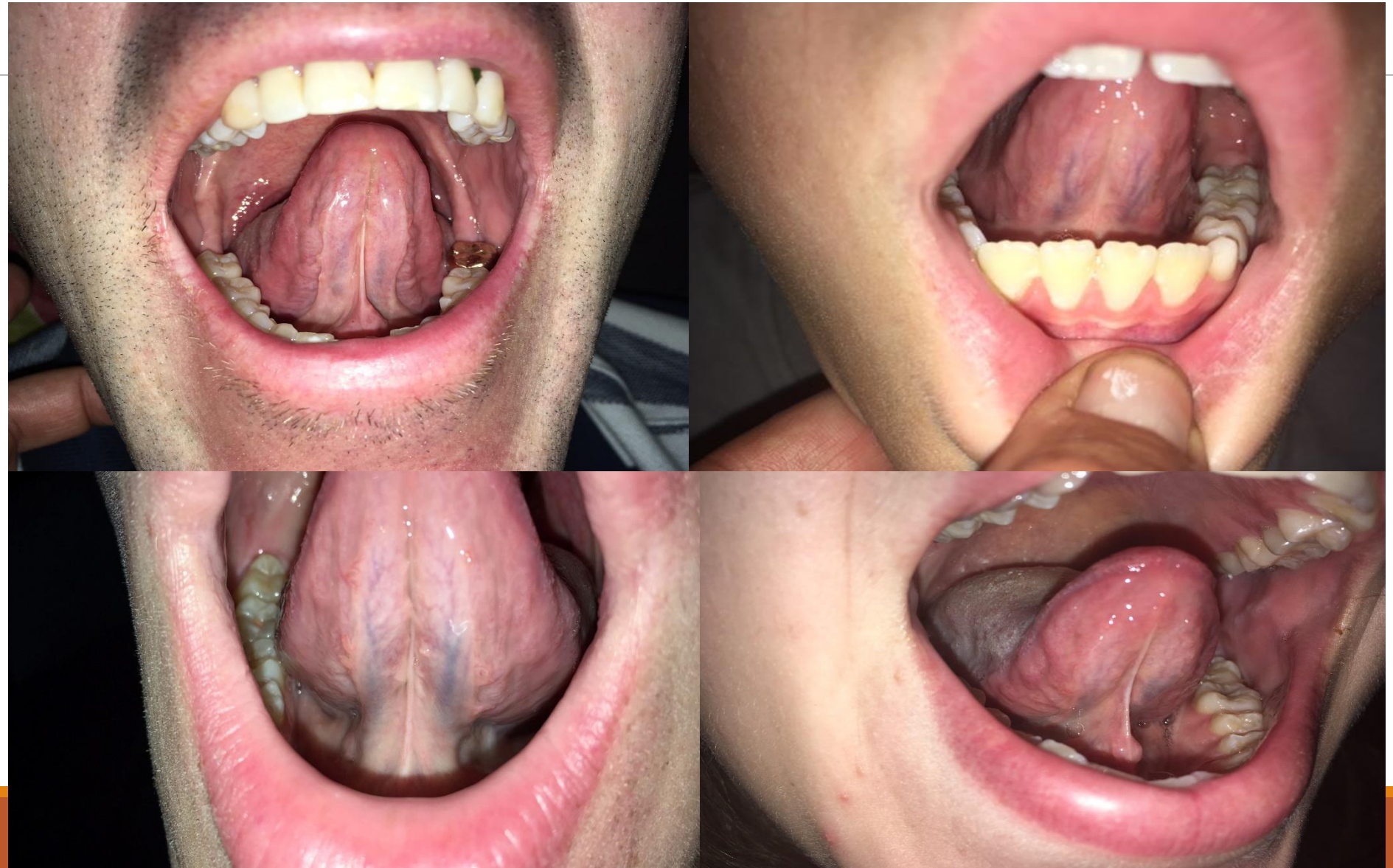
Audit 2016

New Pathway

Outcomes



Rogues Gallery

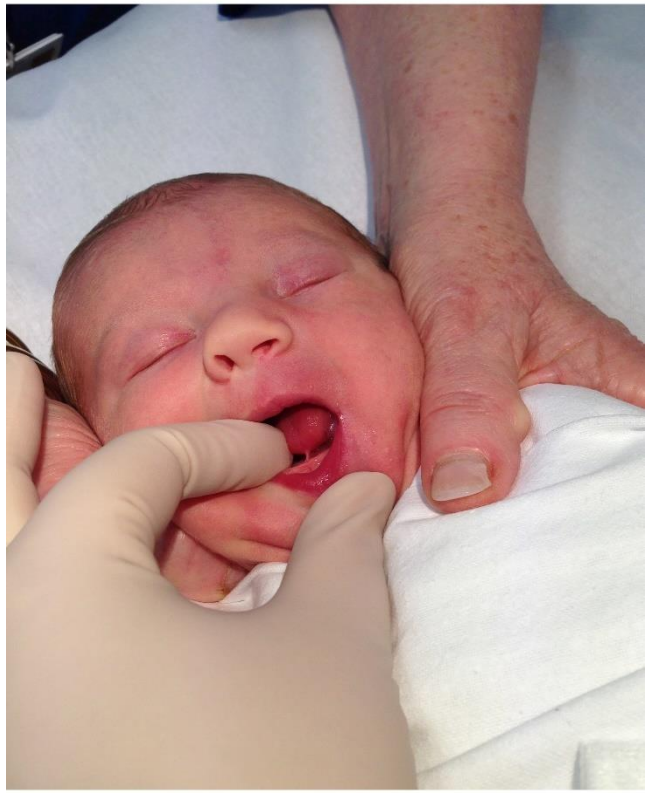


Definitions

- A frenulum attachment beneath the tongue is a variant of normal anatomy.
- Ankyloglossia is when the frenulum is abnormally short or dense and limits the range of tongue movement (1-10% of the population).
- Restricted tongue movement can cause difficulty with breastfeeding in 25-50% of babies with ankyloglossia.
- 0.25-5% of newborn babies may have feeding problems related to ankyloglossia

Tongue-tie Release Surgery

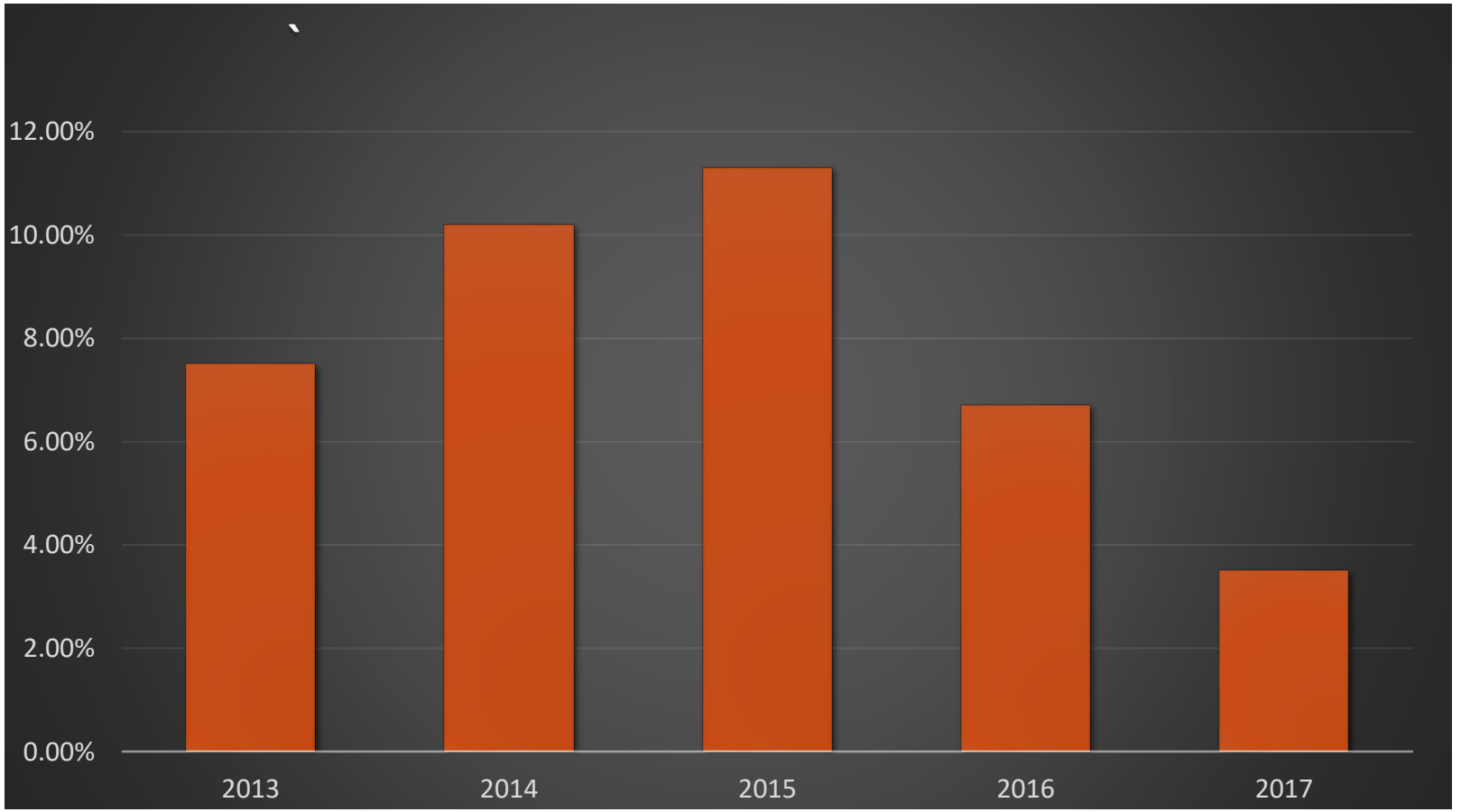
International guidelines support tongue-tie release surgery (frenotomy or frenectomy) for babies with ankyloglossia, while acknowledging that evidence is weak.



Remember

- A lingual frenulum is normal anatomy
- Ankyloglossia describes restricted tongue **function** caused by a lingual frenulum which limits tongue movement
- At least 50% babies with ankyloglossia can still breastfeed normally

Annual Christchurch Women's Hospital Frenotomy Intervention Rate for Babies with Feeding Problems



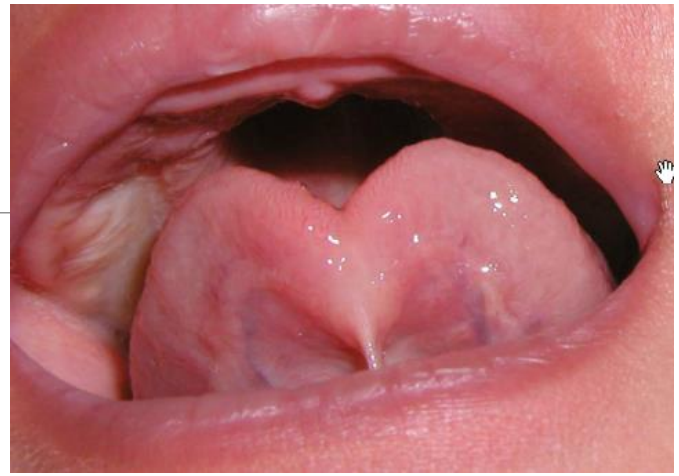
Project Initiation (Canterbury Initiative supported)

- Consultation
  - Anxiety from primary and tertiary clinicians
  - Consumer pressure
  - Service demands
  - Confusion about anatomy
- Baseline stats known
- Agreement in department to standardise assessment of ankyloglossia
- BTAT trial, intervention threshold set ≤5
- AUDIT
- Forum – consensus reached

2 forums over several months

- New clinical pathway to be developed with:
  - Assessment delayed until the baby is at least 48 hours old
  - Equitable access to frenotomy surgery
- Combined assessment with a BTAT threshold (≤4)and breastfeeding review
- Intervention rate ≤4%
- Repeat audit
- New outpatient clinic
  - Centralised triage
  - Digital records
  - **Additional capacity** was developed for community based lactation consultant assessments.
- **Education** and training plan

BTAT



Bristol tongue assessment tool

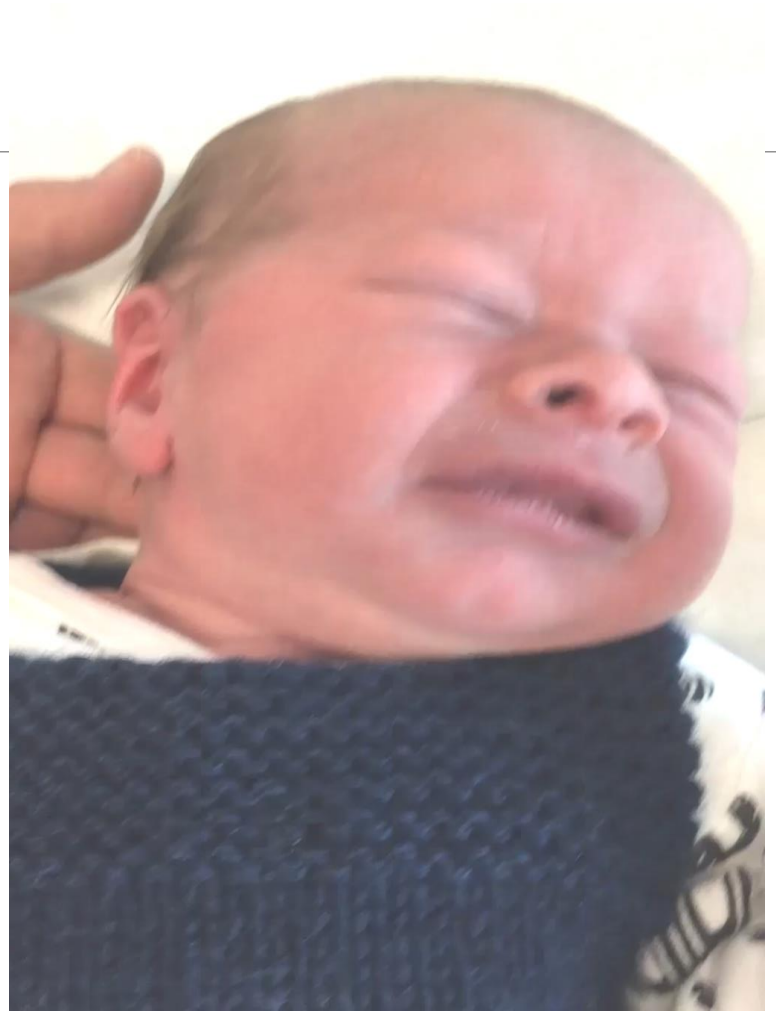
Total Score 0-8

Appearance / Lift / Protrusion / Attachment

Table 1 Bristol Tongue Assessment Tool (BTAT)

	0	1	2	Score
Tongue tip appearance	Heart shaped	Slight cleft/notched	Rounded	
Attachment of frenulum to lower gum ridge	Attached at top of gum ridge	Attached to inner aspect of gum	Attached to floor of mouth	
Lift of tongue with mouth wide (crying)	Minimal tongue lift	Edges only to mid-mouth	Full tongue lift to mid-mouth	
Protrusion of tongue	Tip stays behind gum	Tip over gum	Tip can extend over lower lip	

Ingram J, *et al*. *Arch Dis Child Fetal Neonatal Ed* 2015;**100**:F344–F348. doi:10.1136/archdischild-2014-307503



CWH Tongue-Tie clinic Audit 2016

- Total 309 babies
- 37% female, 63% male
- Age at referral median 5 days
- Age at clinic appointment median 9 days
- All ethnicities represented

- Symptoms for babies who were released and not-released were similar
- Interestingly constant feeding/ poor transfer of milk meant babies were less likely to be deemed to need release on review.

Comments from declined group

- 3 had gone to private provider and had release post decline from CWH
- 20 happy or improved on own
- 1 very disappointed that had been declined
- 1 very anxious but had improved over time

Feeding 2016 Audit, longitudinal data (BTAT ≤5)

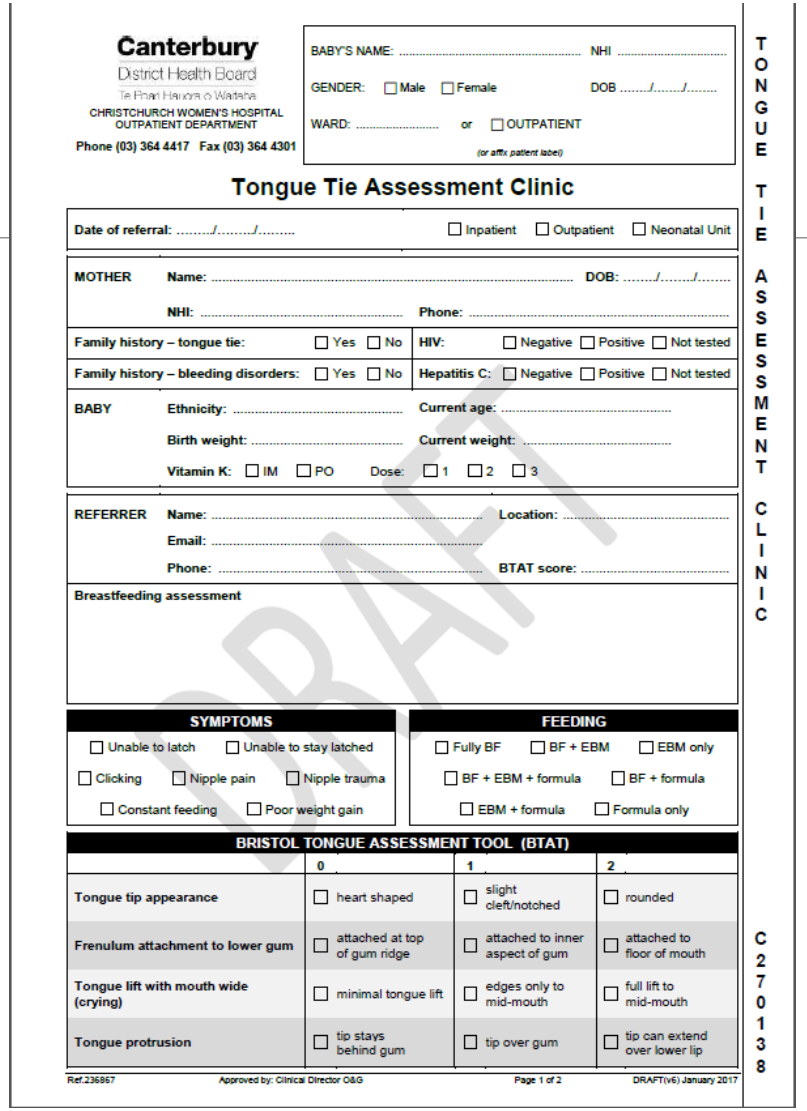
- A significant improvement in exclusively/fully BF rate from 43% to 54% (p=0.03) was observed in the 157 of these dyads who received a frenotomy.
- Only 23% improved
  - 34% continued to exclusively or fully BF
  - 42% either stopped or continued to not breastfeed
- The exclusively/fully BF rate in the 22 infants who did not receive a frenotomy did not change (p=0.73).
- So its helpful for some but which ones…

No statistically significant difference

- In released rate male vs female
- In reports of feeding difficulties after clinic
  - No feeding difficulties reported in 87% released group, 100% non-released
- All groups improved over time (Frenotomy vs non)
- Babies who were not released avoided unnecessary surgery

Current CDHB pathway

- Preferred release after 48 hours
- After 48 hours for review by LC or approved LMC
- **Full Breast feeding review** is undertaken
- Referral made to Women's OPD
- Vitamin K must be given 48 hours prior to clinic
- Referrals triaged by OPC charge with Neonatal SMO backup for any queries
  - ≤8weeks to Neonatal clinic
  - >8weeks to ORL (or if complex anatomy)
- Declined – written explanation returned to referrer by fax



Canterbury
District Health Board
Te Poari Hauora o Waitaha
CHRISTCHURCH WOMEN'S HOSPITAL
OUTPATIENT DEPARTMENT
Phone (03) 364 4417 Fax (03) 364 4301

BABY'S NAME: ..... NHI .....
GENDER: ☐ Male ☐ Female DOB ...../...../.....
WARD: ..... or ☐ OUTPATIENT
(or affix patient label)

Tongue Tie Assessment Clinic

Date of referral: ...../...../..... ☐ Inpatient ☐ Outpatient ☐ Neonatal Unit

MOTHER Name: ..... DOB: ...../...../.....
NHI: ..... Phone: .....
Family history – tongue tie: ☐ Yes ☐ No HIV: ☐ Negative ☐ Positive ☐ Not tested
Family history – bleeding disorders: ☐ Yes ☐ No Hepatitis C: ☐ Negative ☐ Positive ☐ Not tested

BABY Ethnicity: ..... Current age: .....
Birth weight: ..... Current weight: .....
Vitamin K: ☐ IM ☐ PO Dose: ☐ 1 ☐ 2 ☐ 3

REFERRER Name: ..... Location: .....
Email: .....
Phone: ..... BTAT score: .....

Breastfeeding assessment

SYMPTOMS

☐ Unable to latch ☐ Unable to stay latched
☐ Clicking ☐ Nipple pain ☐ Nipple trauma
☐ Constant feeding ☐ Poor weight gain

FEEDING

☐ Fully BF ☐ BF + EBM ☐ EBM only
☐ BF + EBM + formula ☐ BF + formula
☐ EBM + formula ☐ Formula only

BRISTOL TONGUE ASSESSMENT TOOL (BTAT)

	0	1	2
Tongue tip appearance	☐ heart shaped	☐ slight cleft/notched	☐ rounded
Frenulum attachment to lower gum	☐ attached at top of gum ridge	☐ attached to inner aspect of gum	☐ attached to floor of mouth
Tongue lift with mouth wide (crying)	☐ minimal tongue lift	☐ edges only to mid-mouth	☐ full lift to mid-mouth
Tongue protrusion	☐ tip stays behind gum	☐ tip over gum	☐ tip can extend over lower lip

Ref.236867 Approved by: Clinical Director O&G Page 1 of 2 DRAFT(v6) January 2017

TONGUE TIE ASSESSMENT CLINIC

C270138

DRAFT

BABY'S NAME: ..... NHI .....
GENDER: ☐ Male ☐ Female DOB ...../...../.....
WARD: ..... or ☐ OUTPATIENT
(or affix patient label)

Tongue Tie Assessment Clinic

FOR CLINIC USE ONLY

Accepted for review: ☐ Yes ☐ No Forwarded to ORL Service for review: ☐ Yes ☐ No

Appointment date: ...../...../..... Time: ..... Age at release: .....

If declined, feedback to referrer (reason why)

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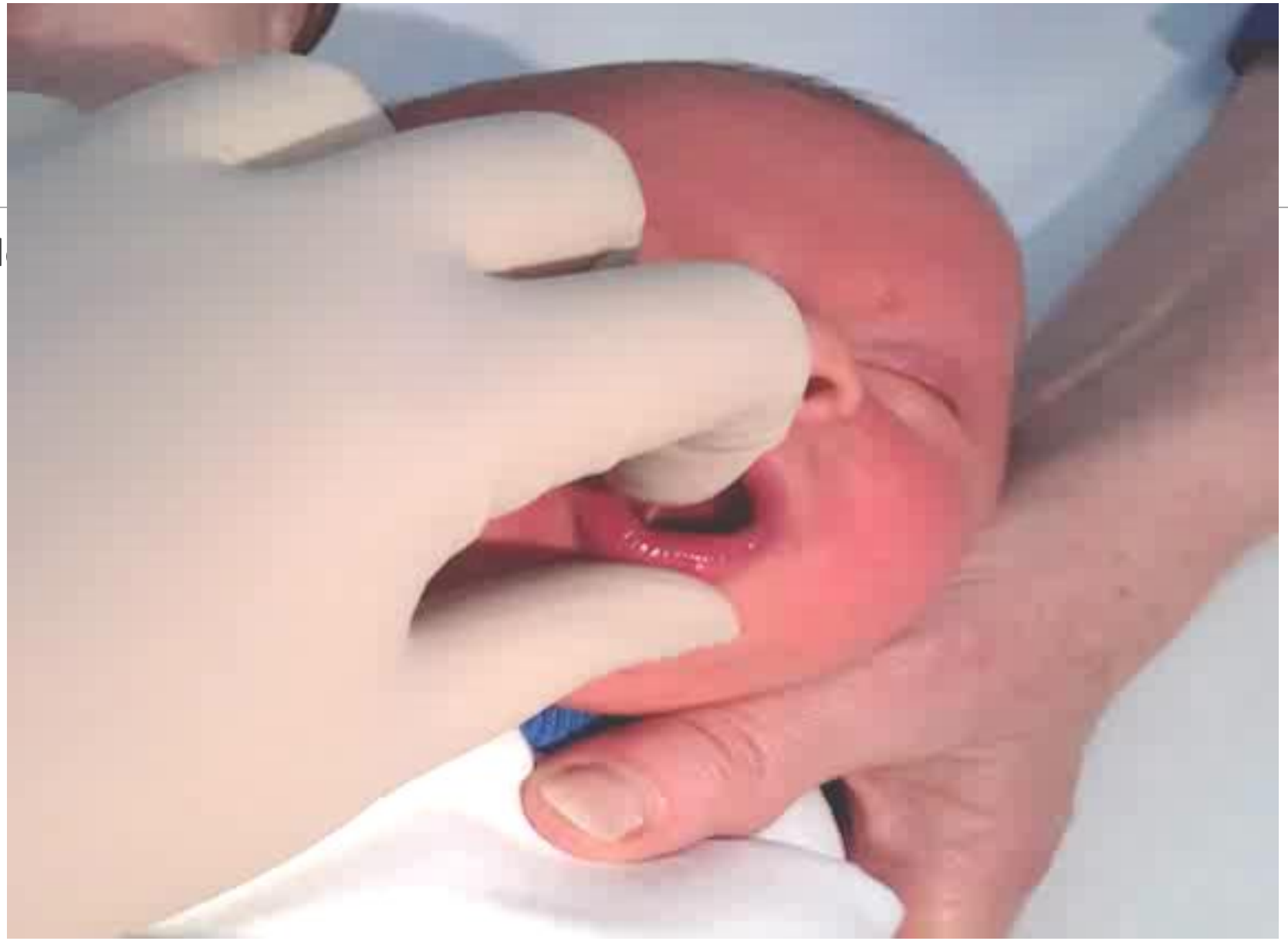
Post clinic

- Written info given to parents and returned to referrer.

- Strongly recommended to seek further BF review in week after (LMC or LC)

Add vid

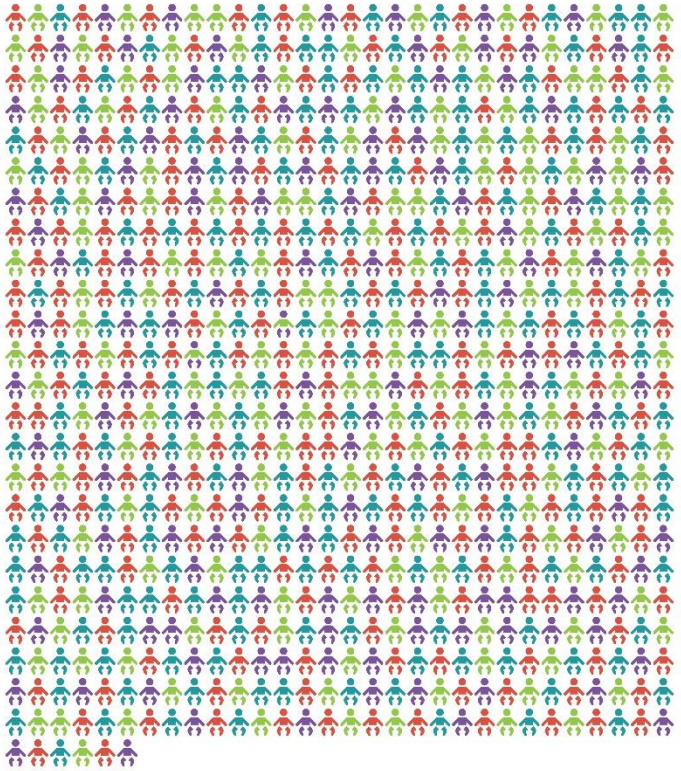


Potential complications

- Bleeding
- Scarring
- Trauma to adjacent tissues
- Oral aversion
- Laser plume
  - Collapse
  - Resus

AS MUCH AS NECESSARY BUT AS LITTLE AS POSSIBLE

2015



2017

Canterbury
District Health Board
Te Poari Hauora o Waitaha

Acknowledgements

Project Team:

Dr Bronwyn Dixon

Dr Adrienne Lynn

Dr Juliet Gray

Marcia Annandale

Robyn Philps

Natalie King

Bruce Penny

RCPHO lactation consultant team

Mr Sam Grieg (ORL)

Special thanks to:

St Georges Lactation consultants and midwifery staff

Canterbury Initiative

Claire MacDonald (LMC)

Christchurch Women's Hospital staff

Professor Laurie Walsh (UQ)

2017 audit

	Released n=55	**Not released** n=3	***P* value**
Gender			
Male	34 (62%)	3 (100%)	
Female	21 (38%)	0 (0%)	
Median age in days (IQR)			
At referral	13 (5-61)	104 (63-106)	
At consultation	17 (7-54)	117 (73-132)	
At follow-up	141 (122-156)	161	
Tongue-tie type (Coryllos classification)	n=42	n=1	
1	16 (38%)	-	
2	24 (57%)	1	
3	2 (5%)	-	
4	-	-	
No visible tie	-	-	
Breast-feeding difficulties at presentation *	n = 53	n=3	
Poor latch	31 (58 %)	2 (67%)	> 0.99
Nipple pain/trauma	32 (60%)	2 (67%)	1.00
Constant feeding-Poor milk transfer	15 (28%)	2 (67%)	0.22
Weight gain failure	12 (23 %)	2 (67%)	0.15
Family history of tongue-tie?	23 (43%)	2 (67%)	0.57
Feeding method at consultation			
Exclusively or fully breast fed	27 (49%)	2 (67%)	-
Bottle	4 (7%)	0 -	
Mixed	24 (44%)	1 (33%)	
Feeding method at follow-up	n=34	n=1	
Exclusively or fully breast fed	19 (56%)	0	-
Bottle	10 (29%)	0	
Mixed	5 (15%)	1 (100%)	

* Some babies had more than one symptom.
† *P* value calculated by the chi square test