Infant Formula

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Overview

All whānau have the right to make fully informed decisions around how to feed their pēpi. Feeding options are best discussed with whānau antenatally with the Lead Maternity Carer. Staff will provide information regarding feeding types and methods and will fully support whānau in their chosen method of infant feeding.

We strive to provide support with infant feeding in a manner that is whānau-centred, culturally safe, non-judgemental and evidence based.

This policy is not for public consultation or display and must be reviewed at least three yearly(1).

Purpose

- To provide consistent, high quality, and evidenced based information and education around the safe use and preparation of infant formula for both users and providers of Te Whatu Ora Waitaha Canterbury services.(2)
- To provide infant feeding support to whānau:
  - ** who have made an informed decision to solely formula feed their pēpi
  - ** who make an informed decision to supplement breast/chestfeeding or human milk with infant formula
  - ** where infant formula use is clinically indicated(3)
- To provide a basis for audit and evaluation.

Applicability

This policy applies to all Te Whatu Ora Waitaha Canterbury staff employed within the maternity system. All access agreement holders are actively encouraged to support this policy and any supporting guidelines.

This policy must be routinely communicated to Level 3 (BFHI) staff who have contact with pregnant wāhine/people, māmā/parents/whānau and pēpi.(1)

This policy can also be utilised to inform care in any other area of the Te Whatu Ora Waitaha Canterbury where infant feeding occurs.

Roles and responsibilities

All staff involved in the care and support of infant feeding must ensure that their knowledge about infant formula feeding is current. For level three staff in maternity and NICU settings this is audited as part of BFHI accreditation.(4)

BFHI Level Two staff must have a clear understanding of the acceptable medical reasons for giving food or drink other than human milk to a breastfeeding pēpi.(5)

Compliance with The Code

Te Whatu Ora Waitaha Canterbury maternity facilities are accredited Baby Friendly Hospitals. Compliance with the International Code of Marketing of Breastmilk Substitutes and relevant World Health Assembly resolutions(6) – hereafter referred to as 'The Code' – is mandatory.

Compliance with The Code is an integral part of the Te Whatu Ora Waitaha Canterbury breastfeeding policy (Ref.GLB01).

Health care facilities should not be used for promoting breastmilk substitutes, feeding bottles, teats or pacifiers.

To achieve this in the healthcare setting, a summary of the main points follows:

- Products within the scope of The Code should not be advertised to the public anywhere in the service;
- Samples or products should not be given to māmā/parents, whānau or health workers;
- Health care providers should not be given free or subsidised supplies, products or gifts and must not promote products within the scope of The Code;
- There will be no items bearing company logos within the Te Whatu Ora Waitaha Canterbury premises or used by its staff, eg. stationery, diary covers, key fobs, lanyards, pens, tourniquets, gestational/age in weeks calculators, weight conversion charts, post-it note pads, etc.;
- Only scientific and factual information, free from commercial bias, are used in the care of pēpi and education of their parents/whānau;
- Infant formula is purchased through normal procurement procedures and will be purchased at wholesale or no less than 80% of retail price. No free or low-cost supplies of breast-milk substitutes will be permitted in any part of the health care system;
- People responsible for marketing products within the scope of The Code should not try to contact māmā/parents or whānau. If contact is attempted, staff will inform their location manager who will then direct them to the Dietician Clinical Manager;
- All information and educational materials for pregnant māmā/people and whānau must explain the benefits of breastfeeding, the health hazards associated with the unnecessary or improper use of infant formula;
- As part of the informed consent process, staff will discuss the financial implications of using infant formula for the first 12 months of the infant's life.

- Education and practical demonstration on the use and preparation of infant formula will be given to pregnant or postnatal māmā/parents and whānau on a one-to-one, individualized, as needed basis by a staff member with appropriate education. There will be no group instruction/demonstration in any part of the health care system.

Ready to Feed (RTF) formula products

The New Zealand Ministry of Health states that RTF formula must be supplied and used for premature (<37 weeks gestation), low birth weight (<2500g), sick babies, and those in NICU (7,8,9). Te Whatu Ora Waitaha Canterbury supplies RTF formula for all babies within the maternity system*.

RTF is sterile in the bottle, reducing infection risk for pēpi, compared with powdered infant formula.

In accordance with BFHI documents, all RTF formulas available on the New Zealand market will be rotated equally to avoid perceived brand preference. Available formulas are reviewed by the Dietician Clinical Manager who, along with the Neonatal Clinical Director are responsible for RTF formula rotation. A rotation of 6 months applies for each available RTF Formula brand.

*Maternity facilities exemptions

There are times when whānau request not to use the RTF formula. Wherever possible, whānau will be supported in their decision.

Whānau have the right to know the brand of formula that is currently in use. They should be advised that formula brands are rotated incompliance with The Code.

*NICU facility exemptions

Exceptions are medically indicated conditions that require specialised formula that are not available in liquid form, or other specialised formula for specific medical/metabolic conditions. These formulas will be stored in an area accessible only to staff.

Approved specialised formula powder should be reconstituted with sterile water. Once reconstituted, refrigerate and do not exceed 24 hours between the preparation to feed time. The reconstituted formula should be labelled with date and time and date and time of expiry.

The hang time for all continuous feeds in NICU should not exceed 4 hours.

The sterile water is safe to use for 24 hours from opening, after which it should be discarded. (Please note: time and date opened on the side of bottle.)

Recall of defective infant formula or additive

In accordance with WHA Resolution 58.32[(2)], the written guideline for reporting and follow-up of any infant formula that is found to be flawed, defective, adulterated, or contaminated can be found here: Recall of Defective Infant Formula Additive (Ref.2405166 (8425))

Preparation of RTF formula for feeds

Formula feeds for the solely formula fed well, term pēpi should not exceed their physiologic capacity of the newborn stomach. Small volumes 2-10mL in the first 24 hours, 5-10mL from 24-48 hours, 15-30mL from 48-72 hours and 30-60mL from 72-96 hours.

Input from the neonatal service or lactation consultant for premature or unwell pēpi may supersede these volumes.

- Only trained personnel should decant RTF. The best hygiene techniques should be applied, including thoroughly washed hands and avoiding any contact with the liquid. It is essential for decanting to take place in a thoroughly clean environment.
- If only a partial feed is required for pēpi, the anticipated amount should be decanted into a sterile container and after warming to the correct temperature fed to the pēpi immediately.
- Ensure that the appropriate RTF formula is being used - Stage 1 suitable from birth
- Store at room temperature
- Check expiry date before use
- Cover brand label with a plain sticky label
- Write the date and time of opening on the plain label
- Shake well before use
- After decanting, the balance of RTF formula should be recapped immediately and stored in a refrigerator at below 4°C for no longer than 24 hours
- Use appropriate feeding method with consideration for the infant feeding plans of the whānau. For the breastfeeding pēpi, see (GLB09).
- Warm by placing the container of prepared RTF formula in a plastic cup of warm, not hot, water. If the milk feels just warm on the inner wrist, it is safe to feed to pēpi.
- Discard all warmed, unused RTF formula after a **maximum** of 2 hours – NEVER reheat partly used feeds.

If infant **feeding challenges** are identified when bottle feeding, document in the clinical records, discuss with a colleague and consider referral to a lactation consultant (maternity), infant feeding specialist (NICU) and/or Speech Language Therapist

Where parents are concerned about feed intolerance, staff should seek advice from the multidisciplinary team before changing formula. A decision to change to any other formula will be made by the Neonatology or Paediatric consultant in conjunction with the Dietitian as a specialised formula will need to be prescribed if patient meets criteria set by Pharmac.

NICU

- Decanted formula in NICU will be labelled with:
- Patient name and NHI number
- Expiry time
- Formula type and volume
- Additives type and amount

Types of bottles and teats

- Bottles and teats supplied by the Te Whatu Ora Waitaha Canterbury will be glass or polypropylene, BPD-free plastic. They will not contain polyvinyl chloride (PVC) plastic. Teats are latex-free.

Single use bottles and teats will not be sanitised by any method, rather discarded after one use.

Other bottles and teats will be placed in an antibacterial solution at the bedside to allow for continued use for an individual māmā/parent and pēpi dyad throughout their stay. On discharge bottles are discarded into a recycling container and teats are discarded into the appropriate rubbish stream. Instructions for sanitising are provided in all postnatal rooms (Ref.2408041).

Specialised products

Specialised feeding systems are usually prescribed after assessment from a speech language therapist and/or lactation consultant. They are individually issued and not disposable.

Parental education and advice

Whānau will be informed that feeding time is not just about food, but is also about developing close, loving connections and relationships. Close physical contact and eye contact are linked to optimum brain development. It is important not to multi-task or prop the bottle during feeds. Take it slow and let pēpi take their time, this should be a pleasurable experience of sucking and cuddling for baby. Switching arms at alternate feeds can help baby see the world from different perspectives.

Parents will receive the following individual information and education:

- The importance of skin to skin contact (GLB04) which is beneficial for both pēpi and parent irrespective of chosen feeding method.
- The importance of rooming in (GLB07)
- Recognising feeding cues and cue-based feeding (GLB08)
- Recognising when baby is feeding effectively
- Safe feeding techniques (Ref.2408123) Particularly the paced bottle-feeding method.
- Instruction of preparing powdered infant formula (PIF)
- Instruction on cleaning and sanitising infant feeding equipment
- Caring for your breasts when you are not breastfeeding (Ref.2406386) – Staff should refer to Appendix 2 to ensure consistency of advice provided around care of the non-lactating breasts.

If a pēpi is receiving infant formula at the time of discharge, education needs to be provided on the safe preparation and use of PIF in the home care setting. This includes safe sanitising methods. Whānau should be provided with the written document: 'Feeding your baby infant formula' and provided with the opportunity to watch the video how to make baby formula (below).

Resources to support parental education

Feeding your baby infant formula
https://www.healthed.govt.nz/resource/feeding-your-baby-infant-formula

Video – How to make baby's formula
www.kidshealth.org.nz/how-make-babys-formula

Baby-led feeding
http://www.unicef.org.uk/babyFriendly/Health-Professionals?Care-Pathways/Bottle_feeding/First-days/baby-led-feeding

Feeding cues
https://www.breastfeeding.asn.au/bfinfo/feeding-cues
http://www.health.qld.gov.au/breastfeeding/documents/feeding_cues.pdf
http://www.kidshealth.org.nz/hunger-cues-formula-feeding

Paced bottle feeding
https://mykidslickthebowl.com/paced-bottle-feeding
https://www.youtube.com/watch?v=UH4T70OSzGs&t=6s

Safe Sleep
https://www.healthinfo.org.nz/ – search for 'Safe sleeping for babies'
https://www.healthnavigator.org.nz/health-a-z/s/sudi/
https://www.health.govt.nz/your-health/pregnancy-and-kids/first-year/helpful-advice-during-first-year/safe-sleep

Community support for whānau

- Lead Maternity Carer
- Plunket: ww.plunket.org.nz – 0800 933 922
- Multiple Birth Association
- Kaiawhina Whaea Me Nga Pēpi – Maori Health Worker, Women's Health (03) 364 4503
- Te Puawaitanga ki Otautahi Trust – (03) 344 5062
- Witaha Primary Health
- Pacific Trust Canterbury & Breastfeeding support
- National Helpline – 0800 611 116
- Etu Pacifica Ltd – 03 3651002

Infant formula use – informed decision of whānau

If whānau have made an informed decision to solely infant formula feed their pēpi before admission to any maternity facility, it is the responsibility of the LMC to provide education on how to safely prepare infant formula and ensure they have the correct equipment including bottles and teats. It is also the responsibility of the LCM to inform whānau about Te Whatu Ora Waitaha Canterbury's policy to use RTF formula in our maternity facilities.

The health professional has a responsibility to meet the WHO Recommendations for Infant Feeding. Article 4:2[(6)] identifies the health professional's responsibilities to whānau who decide to feed their pēpi infant formula or supplement the breastfed pēpi with infant formula are to:

- Ensure they have made a fully informed decision and are aware of the importance of breastmilk/ breastfeeding or the risk of infant formula use (See Appendix 1 for resources);
- Ensure they are aware of the financial costs for providing feeding equipment and providing formula until the pēpi is 12 months old;
- Document the feeding choice of the whānau in the clinical records of pēpi;
- Initiate a documented feeding plan that includes the appropriate volume for age and weight of the pēpi, and responsive, cue-based feeding;
- Provide kanohi ki te kanohi/face to face education on the safe use of infant formula including the correct preparation, storage, and sterilisation techniques;
- Provide one on one, kanohi ki te kanohi/face to face education of bottle-feeding technique;
- Ensure adequate education when whānau wish to provide their own infant formula and feeding equipment.

Written infant formula consent information will be used to support these individualised discussions with whānau in Te Whatu Ora Waitaha Canterbury maternity facilities.

- Thinking about infant formula (Ref.2407640)
- Administration of Infant Formula (Ref.2407641)
- Also see Parental Education and Advice on page 4

Infant formula use – clinical indications

Where expressed breastmilk from māmā/parent, pasteurised donor breastmilk or donor breastmilk are not available or declined, these are the acceptable medical indications for the use of infant formula (3,5).

Where pēpi is not latching at the breast, infant formula supplementation should not take priority over expressed breastmilk without additional clinical indications.

1. Medical indications

- Very low birth weight or very preterm infants i.e. those born less than 1500 grams or 32 weeks gestational age.
- Signs of hypoglycaemia, where optimal breastfeeding fails to correct low blood sugar levels, and where sufficient breastmilk is not immediately available (refer to hypoglycaemia guideline (GLM0056))
- Severe hyperbilirubinemia, after full assessment of breastfeeding is found to be insufficient
- Phenylketonuria where some breastfeeding may be possible, partly replaced with phenylalanine-free formula
- Acute dehydration
- Excessive weight loss (Ref.2403289: Management of babies with excessive weight loss)
- Other rare metabolic conditions such as galactosaemia and maple syrup urine disease

2. Mother/parent unable to breastfeed

- Maternal/parental illness
- Primary insufficient breastmilk/human-milk supply
- Geographic separation of mother/breastfeeding parent and pēpi (eg. retrieval from the Te Whatu Ora Te Tai o Poutini West Coast)

3. Contraindications to breastfeeding such as

- Active maternal/parental tuberculosis
- Maternal/parental HIV+ where replacement feedings are acceptable, feasible, affordable, sustainable and safe (AFASS)
- Herpetic lesions on or near the nipple (HSV-1) – avoid until all lesions have resolved. Support of lactation should be encouraged until this time.
- Human T Cell leukaemia virus Type 1
- Maternal/parental medications (uncommon)

Written infant formula consent information will be used to support these individualised discussions with whānau in Te Whatu Ora Waitaha Canterbury perinatal facilities.

- Infant Formula for Clinical Reasons (Ref.2407639)
- Administration of Infant Formula (Ref.2407641)

References

1. NZBA Baby Friendly Aotearoa New Zealand (2020) Baby Friendly Hospital Initiative (BFHI) Resource document. Page 50.
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3. http://apps.who.int/iris/bitstream/handle/10665/69938/WHO_FCH_CAH_09.01_eng.pdf;jsessionid=839CD697DC3CC18F60DDC26492C6FDF3?sequence=1
4. NZBA Baby Friendly Aotearoa New Zealand (2020) Baby Friendly Hospital Initiative (BFHI) Resource document. Page 51.
5. NZBA Baby Friendly Aotearoa New Zealand (2020) Baby Friendly Hospital Initiative (BFHI) Resource document. Page 56-59.
6. The International Code of Marketing of Breastmilk Substitutes and subsequent relevant World Health Assembly (WHA) resolutions 2nd Updated Edition, World Health Organisation 2006.
7. Ministry of Health Inquiry into actions of sector agencies in relation to contamination of infant formula with Enterobacter Sakazakii, March, 2005,P16.
8. https://www.moh.govt.nz/notebook/nbbooks.nsf/0/0a9db19cd852af71cc256fdb000e3d61/$FILE/enterobactersakazakii-report.pdf
9. https://www.health.govt.nz/our-work/diseases-and-conditions/communicable-disease-control-manual/cronobacter-species-invasive-disease

Appendix 1 Resources to support education for whānau

Whānau have a right to make fully informed decisions regarding the feeding method that best suits their pēpi. Discussion on infant feeding should take place during the antenatal period but may take place at any opportune time.

Importance of breastfeeding

- Ministry of Health: https://www.health.govt.nz/your-health/healthy-living/babies-and-toddlers/breastfeeding/benefits-breastfeeding
- Ministry of Health - Breastfeeding your baby (pamphlet) code HE2098. Revise 2013. 11/2013 available from www.healthed.govt.nz
- Kelly Mom: http://kellymom.com/

Risks of not breastfeeding

- Spatz, D & Lessen, R (2011) Risks of Not Breastfeeding, International Lactation Consultants Association.
- 14 Risks of formula feeding. http://www.infactcanada.ca/pdf/14-Risks-Small.pdf
- The Risks of Not Breastfeeding for Mothers and Infants: http://iinformedparenting.blogspot.co.nz/2010/11/risks-of-not-breastfeeding-for-mothers.html

Risks associated to pēpi with infant formula feeding	**For mama/parents, not breast/chestfeeding is associated with an elevated lifetime chance of**
Diabetes 1 & 2	Increased incidence of premenopausal breast cancer
Obesity, and non-communicable diseases that develop from obesity	Ovarian cancer
Chron's, Ulcerative colitis and other gastrointestinal problems	Myocardial infarction
Lymphoma	Type 2 diabetes
Leukaemia	Metabolic syndrome
Allergy	Rheumatoid arthritis
Asthma	Osteoporosis
Urinary tract infection	Increased incidence of child abuse (1,2,3)
Sudden unexplained death in infancy (SUDI)	Retained gestational weight gain
Upper respiratory infection	More absenteeism if employed
Necrotising enterocolitis (NE)	Increased postpartum bleeding
Oditis Media/Ear infection	
Inequality	
Cardiovascular disease	
Coeliac Disease	
Higher Cholesterol	
Pathogen Contamination (eg. coronobacter sakasakii)[4]	

1. Minchin, M (2015) Milk Matters: Infant feeding and immune disorder: Milk Matters, Australia
2. Kremer KP, Kremer Tr (2018) 'Breastfeeding is Associated with Decreased Childhood Maltreatment' *Breastfeed Med.* Jan/Feb;13 (1):18-22
3. Strathearn l, Mamun AA, Najman JM, O'Callaghan MJ. (2009) 'Does breastfeeding protect against substantiated child abuse and neglect? A 15-year cohort Study.' *Pediatrics* Feb 123(2): 489-493
4. Ministry of Health Inquiry into actions of sector agencies in relation to contamination of infant formula with Enterobacter Sakazakii, March, 2005

Appendix 2 The care of non-lactating breasts

Production of breastmilk will stop by itself over time there is no breastfeeding or expressing to stimulate milk production. While the breasts involute there may be milk leakage, breast engorgement, discomfort or pain for some weeks.

An LMC should be available to provide supportive guidance once home.

In the hospital setting, Supportive Care should be offered:

- Wear a well-fitting, supportive bra that is not too tight.
- Place a cold compress or ice pack on the breasts for 15-20 minutes every 1-2 hours while the woman is awake.
- Do not massage or apply heat to the breasts.
- Teach mothers/parents to check their breasts for lumps, pain or redness
- Provide paracetamol and/or anti-inflammatory (Ibuprofen) for pain relief if required.

Encourage women/parents to become breast watchers by checking for signs and symptoms such as:

- Increased fatigue
- Muscle aches, chills or flu-like symptoms
- Red, hot, hard, lumpy or painful breasts (may be mastitis* or infective mastitis*)
- Temperature ≥ 38°C

* mastitis literally means, and is defined herein, as an inflammation of the breast; this may or may not involve a bacterial infection[5], redness, pain, and heat may all be present when an area of the breast is engorged or 'blocked'/'plugged', but an infection is not necessarily present. There appears to be a continuum from engorgement, non-infective mastitis, and infective mastitis, to breast abscess.[5]

Pharmacological weaning is another method for rapid milk suppression. The drug of choice is Carbergoline. This may be offered, however physiological weaning is preferred due to the drugs side effects and reported rebound in lactation around 2 weeks.[4]

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2. World Health Organization: *Mastitis: Causes and Management*, Publication Number WHO/FCH/CAH/00.13, World Health Organization, Geneva, 2000.
3. Walker M. Mastitis in lactating women. *Lactation Consultant Series Two*. La Leche League International, Schaumburg, IL, 1999; Unit 2.8. Downloaded on the 21st April, 2015 http://www.bfmed.org/media/files/protocols/protocol_4mastitis.pdf
4. http://www.drugs.com/cg/breast-care-for-the-non-breastfeeding-woman.html
5. https://www.bfmed.org/assets/ABM%20Protocol%20%2336.pdf