BREASTFEEDING EDUCATION- MAKING AN IMPACT?

NAOMIE-BHSCT COMMUNITY INFANT FEEDING LEAD

HOLLY – GP

DENISE - PHARMACIST

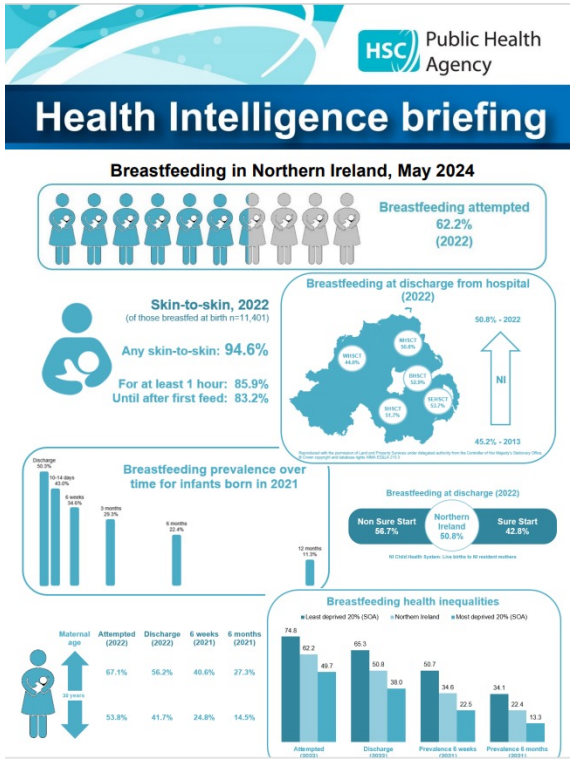
AIMS

- Understand prevalence of breastfeeding in Northern Ireland
- Understand benefits of breastfeeding for mothers and infants
- Common breastfeeding presentations to GP
- Medications in breastfeeding

BREASTFEEDING IN NORTHERN IRELAND

Strategy Shaping Practice

- 'Breastfeeding – A Great Start'
- A strategy for Northern Ireland 2013-2023'
- Improve breastfeeding rates, access to high quality support and normalise breastfeeding.
- New Strategy is awaited from DOH and PHA to continue with progress already achieved.
- Live Better initiative, focuses on Starting well, Living well and Aging Well.
- Local data on Breastfeeding rates in each Trust shows overall increase of Breastfeeding prevelance and longevity year on year.



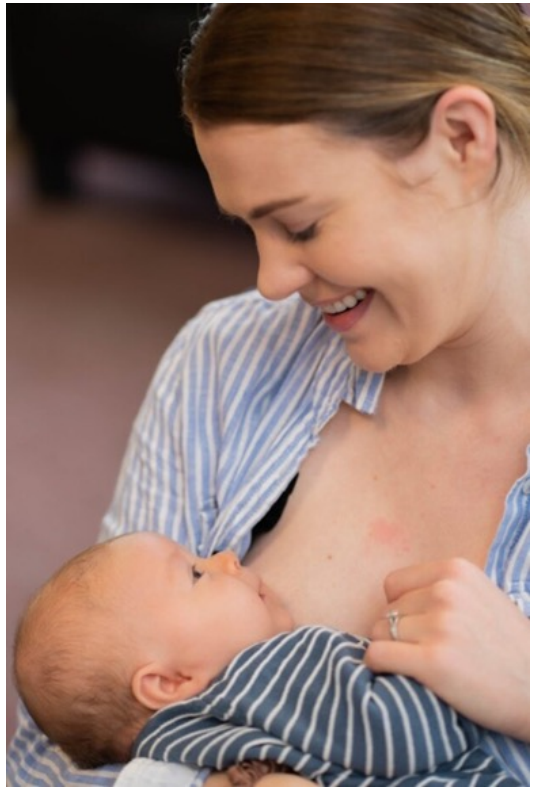
BHSCT BREASTFEEDING PREVALENCE OVER 4 YEARS

Breastfeeding statistics				
Age/stage collected	Feeding category			
	Full / total breastfeeding	Partial breastfeeding	Formula feeding	Unknown
Initiation	56.0%			
1-2 weeks	32.0%	12.0%	51.0%	5.0%
6-11 weeks	27.0%	9.0%	56.0%	7.0%
14-19 weeks	23.0%	10.0%	57.0%	13.0%
6-9 Month	13%	3%	39%	44%
1 Year	2%	0.8%	9%	88%
Population coverage:		95%		
Period of collection: (e.g. Jan-Dec 2018)		Jan - Dec 2021		
Notes (any other relevant information)		• 1 years stood down during Covid		

Age/stage collected	Feeding category			
	Full / total breastfeeding	Partial breastfeeding	Formula feeding	Not known
Initiation	58%			
1-2 weeks	34%	18%	42%	6%
6-11 weeks	29%	15%	50%	5%
14-16 weeks	26%	11%	53%	9%
6-9 months	21%	9%	56%	13%
1 year	15%	6%	59%	20%
Period covered by the figures	Jan – Dec 2024			

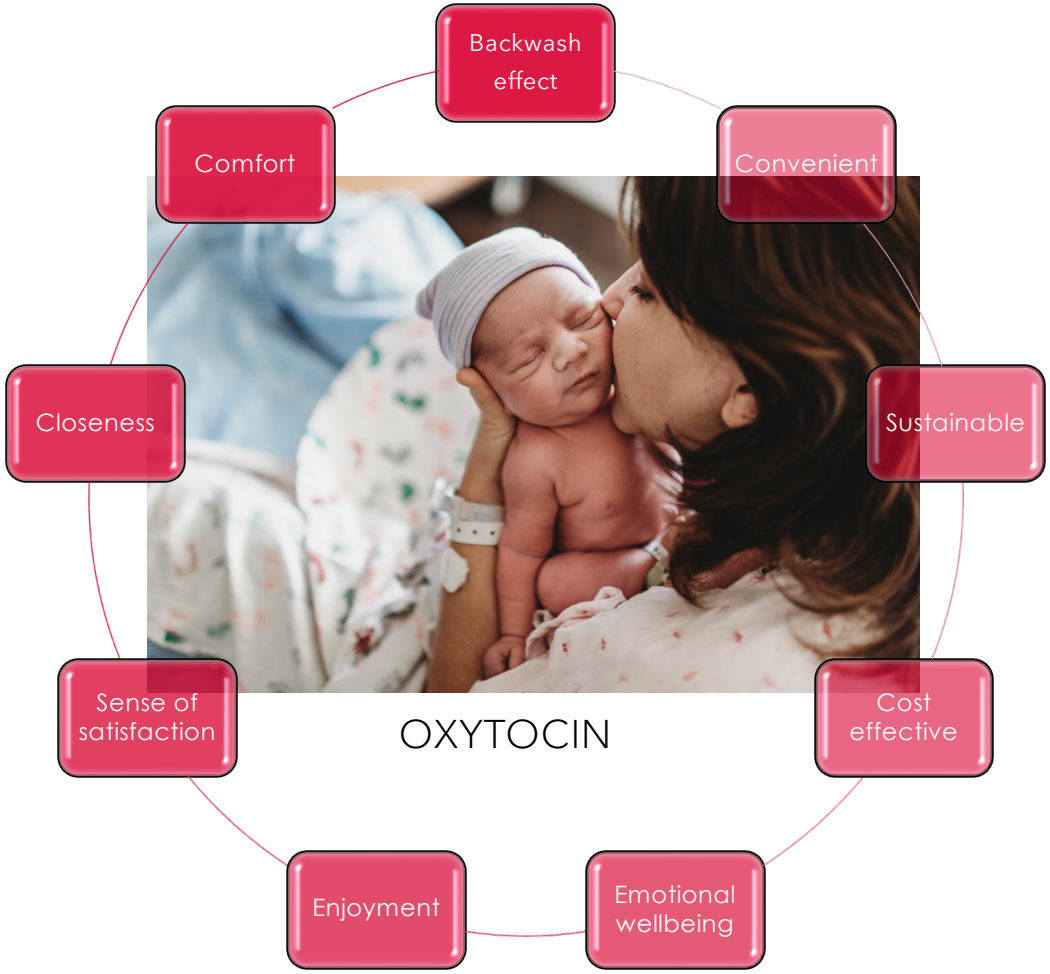
BREASTFEEDING REDUCES HEALTH RISKS TO BOTH MUM AND BABY

- Gastroenteritis
- Otitis Media
- Respiratory infections
- Allergies*
- Obesity
- Type 1 & 2 diabetes
- SIDS
- Brain Development & IQ



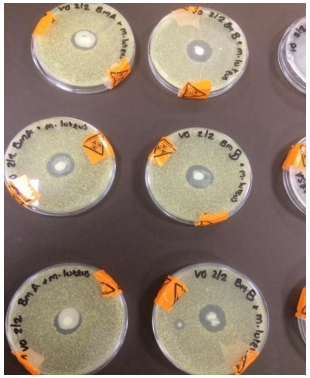
- Breast cancer
- Ovarian cancer
- Hip fractures
- Cardiovascular disease
- Postnatal Depression

BREASTFEEDING IS MORE THAN MILK



Microbiome

- The largest population of microbes is in our gut.
- Our gut is the 2nd brain
- Vaginal birth, skin-to-skin contact and breastfeeding are key in initiating the optimum microbiome for infants.
- Oligosaccharides in breastmilk feed healthy gut bacteria



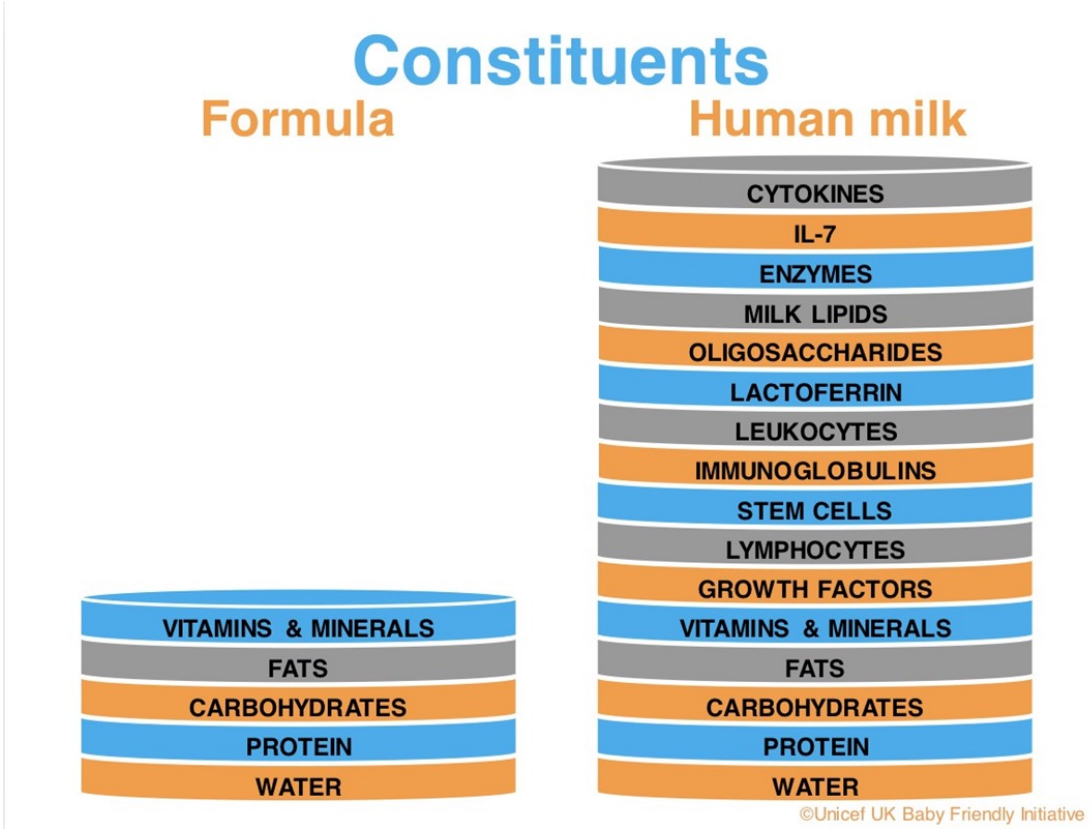
Epigenetics

- In the first 3 years of life our DNA is most susceptible to epigenetic changes

▪Breastmilk has the ability to turn off or on certain epigenetic changes.

- Breastmilk and breastfeeding can potentially change the epigenome to affect lifelong health of the baby.

WHAT'S THE DIFFERENCE?



NORMAL BREASTFEEDING



- Baby is well attached at the breast, breastfeeding painfree with no change to nipple shape
- Baby is fed responsively- feeding 8-12x minimum 24hrs
- Baby is gaining weight
- Wet and dirty nappy – minimum 6 wet and 2 dirty nappies 24hrs up until 6weeks
- Baby settled during and after feeds
- Breastfeeds lasting 5-40mins, can include both breasts,

COMMON BREASTFEEDING PRESENTATIONS GP

DR HOLLY MCMURRAY
GP REPRESENTATIVE ON BELFAST TRUST INFANT FEEDING GROUP
HOLLY.MCMURRAY@GP.HSCNI.NET

ZOE, 28YEARS OLD

- 4 weeks postpartum
- Breastfeeding exclusively
- Right breast pain
- Has tried ibuprofen and massage
- Breast now becoming red, very sore
- She doesn't feel well, thinks may have temperature



PAINFUL BREASTFEEDING

- Majority if painful breastfeeding is due to **sub optimal attachment** at the breast

Nipple	Breast
Cracked/ damaged nipple- latch	Strong let-down
Nipple bleb	Engorgement
Skin conditions- dermatitis	Expressing milk- pump pain
Vasospam/ Raynauds	Compressed ducts/ mastitis
Thrush *	Abscess
Neuropathic pain	Neuropathic pain
Tongue Tie	

- A patient should get a **breastfeeding assessment**/support from a trained professional such as midwife/ health visitor/ breastfeeding counselor
- Moist healing- Cracked Nipples and Moist Wound Healing - The Breastfeeding Network
- Use creams/ paraffins with caution/ sparingly
- Nipple shields- can be useful however should be used with caution- as they change babies latch and may not stimulate breast in the same way.





Images Ref: Dr K Mitchell- consent given
Nipples - Physician Guide to Breastfeeding

ENGORGEMENT



- Normal breasts feel warm/heavy and tender 1 week after birth- as milk builds
- Should not feel- painful, hard, tight
- It can happen at any stage if milk not removed effectively
- It is important that engorgement is addressed quickly and effectively in order to prevent complications such as a reduced milk supply, narrowed ducts and mastitis.

Fig 1. Engorgement, Day 7. © B. Wilson-Clay. Used with permission.

1. Responsive breastfeeding, effective attachment
2. Paracetamol and ibuprofen
3. If infant unable to feed- hand or pump expression(depending age)
4. Rest
5. Drink to thirst, avoid overhydration
6. Therapeutic breast massage/ lymphatic drainage *
7. well fitted non wired/padded bra
8. Cold packs
9. Avoid excessive heat
10. Gentle hand expressing, help infant attach- reverse pressure softening

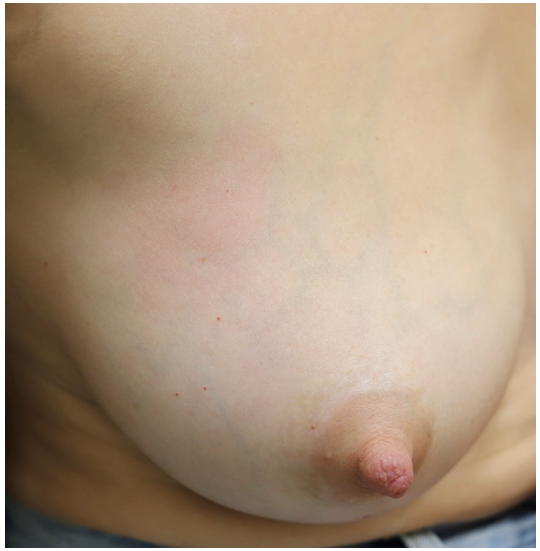


Fig 2 – Therapeutic breast massage to encourage lymphatic drainage
(Source: Academy of Breastfeeding Medicine; Clinical Protocol #36: The Mastitis Spectrum, Revised 2022)

MASTITIS

- Fever and pain with localised redness and swelling can occur **in the absence of infection** due to ductal inflammation and stromal oedema – non infective mastitis
- Ibuprofen 400mg TID/ paracetamol 1g QID
- Self care steps (as above)





Images Ref: Dr K Mitchell- consent given
https://physicianguidetobreastfeeding.org/maternal-concerns/mastitis-and-associated-complications/#mastitis

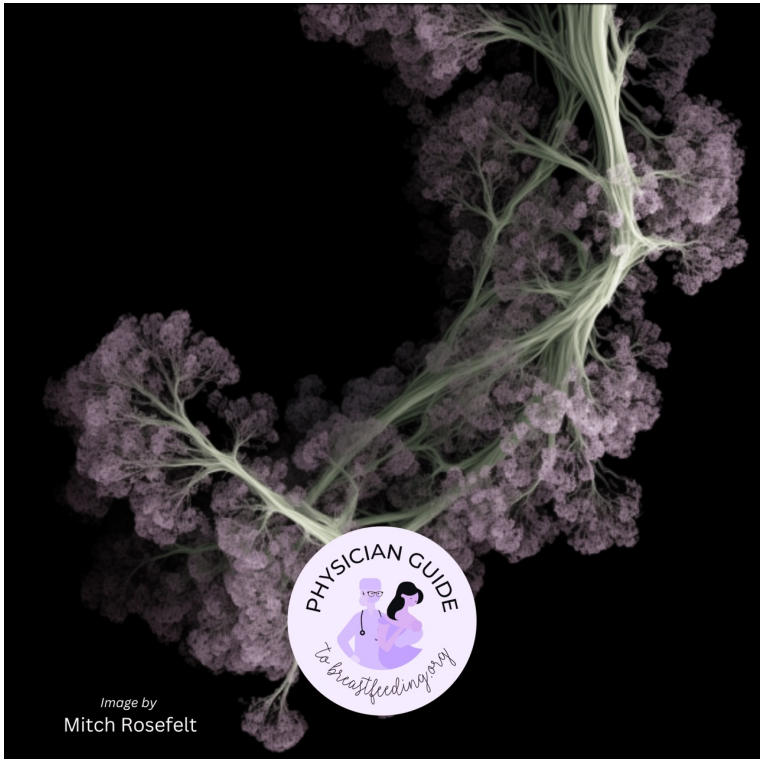
- Caused by ineffective milk removal
- Possibly due to poor positioning and attachment
- Can start with a blocked duct
- Infection is not always present
- Mother may feel like she has flu

- engorgement
- Ductal narrowing
- Non infective mastitis
- Infective mastitis
- Abscess

INFECTIVE MASTITIS

NO EXCESSIVE HEAT/ MASSAGE/ OVERSTIMULATION OF BREAST!

- If no improvement or worsening symptoms after 24-48hours and or fever >38.3 or evidence of severe systemic infection after above self care steps – Infective mastitis
- Continue to breastfeed/ express if possible
- Antibiotics
- Safety net- not improving or worsening 24/48hrs need reassessed
- Culture- not routinely needed, unless not improving 48hrs, reoccurring and suspected abscess
- Staph aureus most common pathogen



Images Ref: Dr K Mitchell- consent given

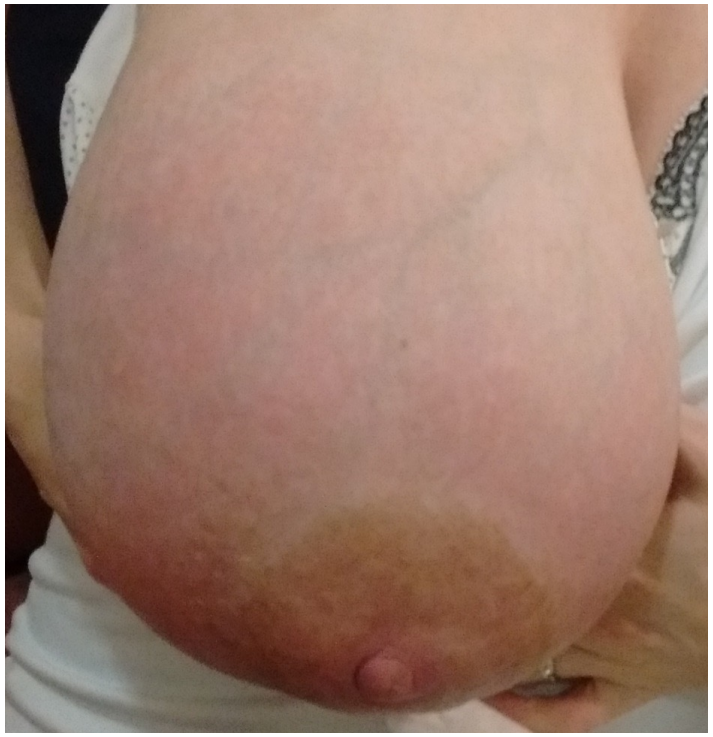
MASTITIS – ANTIBIOTICS



Images Ref: Dr K Mitchell- consent given
https://physicianguidetobreastfeeding.org/maternal-concerns/mastitis-and-associated-complications/#mastitis

- 1st Line (If breast milk culture results are not available)
- Flucloxacillin capsules 500 mg four times a day
- Duration: 10 days. Extend to 14 days if slow to respond.
- Penicillin allergic
- Erythromycin e/c tablets 500 mg four times a day
- Duration: 10 days. Extend to 14 days if slow to respond.
- Advise the woman to seek immediate medical advice if symptoms fail to settle after 48 hours of antibiotics treatment
- Antibiotics can make the baby produce loose, runny motions and become irritable, colicky and restless. This lasts for a short time and will get better when you finish the antibiotics.

MASTITIS & ABSCESSES





3 days later

BREASTFEEDING- THRUSH

Controversial area- NICE + breastfeeding network have removed guidance

Newer studies suggest

- Infant thrush uncommon
- Nipple pain- misdiagnosed- often dermatitis









Common babies to have white coating/ mums can have pain for variety of reasons. True infant thrush is NOT subtle, very thick coating.

Images Ref: Dr K Mitchell- consent given
https://physicianguidetobreastfeeding.org/mythbusters/yeast/

THRUSH OF NIPPLE- NHS GUIDANCE

Mother

- pain in both nipples or breasts after feeds, having previously had no pain after feeding
- the pain can range from sore to severe and lasts for up to an hour after every feed
- Pink nipple/areola area
- Shiny or flaky appearance of the nipple
- Nipple pain out of proportion to the clinical findings
- Burning nipple pain and pain radiating into the breast

Baby

- creamy white spots or patches on the tongue, gums, roof of the mouth or insides of the cheeks – if you gently wipe these patches with a clean cloth, they won't come off
- your baby being unsettled when feeding
- a white film on the lips
- in some babies, nappy rash that won't clear up

https://physicianguidetobreastfeeding.org/mythbusters/yeast/

Management of thrush:

- Swab nipple and infant mouth
- Continue to breastfeed
- Ensure sterilization of any equipment used for expressing
- wash/sterilise-dummys/teats/toys in baby's mouth
- Wash hands after nappy changes
- Wash mothers breastfeeding bras high temperature and change/wash breast pads regularly
- Baby- miconazole gel (>4m)* issues with supply/ nystatin
- Mother- Topical antifungal(miconazole or clotrimazole)+/-steroid if inflammation
- Resistant cases- oral fluconazole 200mg stat, then 100mg daily 7-10days

S A M

- 6 weeks postnatal
- Baby boy, full term NVD, 1st baby
- Exclusively breastfeeding
- Unsettled for several weeks now
- Loose stools, rash on skin, irritable
- HV concerned it could be CMPA?



Image: breastfeeding-problems.com

UK Adaptation of iMAP Guideline for Primary Care and 'First Contact' Clinicians

Management of Mild to Moderate Non-IgE Cow's Milk Allergy (CMA)

May 2019

(No initial IgE Skin Prick Tests or Serum Specific IgE Assays necessary)

Exclusively Breastfeeding [UK Recommendation 1st 6 months]

Strict elimination of cow's milk containing foods from maternal diet

Maternal daily supplements of Calcium and Vit D according to local recommendations
Refer to dietitian - a maternal substitute milk should be advised
An agreed Elimination Trial of up to 4 weeks - with a minimum of 2 weeks.
If severe atopic dermatitis or more severe gut symptoms – consider soy/egg avoidance as well, only with specialist advice
Mothers should be actively supported to continue to breastfeed through this period*.

No Clear Improvement

But - CMA still suspected:

Refer to local paediatric allergy service

Consider excluding other maternal foods eg soy, egg only with specialist advice

CMA no longer suspected:

Return to usual maternal diet
Consider referral to local general paediatric service if symptoms persist. Visit gpifn.org.uk for advice about other infant feeding issues.

Clear Improvement - need to confirm Diagnosis

Home Reintroduction: [NICE Quality Standard]
Mother to revert to normal diet containing cow's milk foods over period of 1 week - to be done usually between 2-4 weeks of starting Elimination Trial

No return of symptoms **NOT CMA** - normal feeding

Return of symptoms

Exclude cow's milk containing foods from maternal diet again
If symptoms clearly improve:
CMA NOW CONFIRMED
If top-up formula feeds should later be needed - eHF may well be tolerated. If not - replace with AAF

Symptoms do not settle

As likelihood of sufficient cow's milk protein passage into breast milk to trigger reactions is low, in breast fed cases, complete milk exclusion may not be required.

Formula Feeding or 'Mixed Feeding' [Breast and Formula]

Strict cow's milk protein free diet

If symptoms only with introduction of cow's milk-based feeds – encourage & support return to breastfeeding*. Mother can continue to consume cow's milk containing foods in her diet. If symptoms settle on return to full breast feeding, reconsider diagnosis if symptoms return on future milk exposure. If symptoms suspected from breastfeeding alone, see Box left.
If **any** formula feeds are required, advise an eHF. Agree an Elimination Trial of up to 4 weeks (minimum of 2 weeks) and assess improvement. **Reintroduction of cow's milk is required to confirm diagnosis.** If weaned - may need advice & support from dietitian. Only follow algorithm further in infants receiving eHF/on diagnostic elimination diet trial.

Clear Improvement - need to confirm diagnosis

Home Reintroduction: [NICE Quality Standard]
Using cow's milk formula
To be done usually between 2-4 weeks of starting Elimination Trial. Refer to iMAP reintroduction leaflet.

Return of symptoms

No return of symptoms **NOT CMA** - normal feeding

Support breastfeeding or if not possible, return to **eHF** again
If symptoms clearly improve:
CMA NOW CONFIRMED
Ensure support of dietitian

Symptoms do not settle

No Clear Improvement

But - CMA still suspected:

Consider initiating a trial of an Amino Acid Formula (AAF)

Refer to local paediatric allergy service

CMA no longer suspected:

Unrestricted diet again
Consider referral to local general paediatric service if symptoms persist

Cow's milk free diet until 9-12 months of age and for at least 6 months – with support of dietitian
A planned Reintroduction or Supervised Challenge is then needed to determine if tolerance has been acquired
Performing a Reintroduction versus a Supervised Challenge is dependent on the answer to the question:
Does the child have **Current Atopic Dermatitis** or **ANY history at ANY time of immediate onset symptoms ?**

1.9-4.9% <3years, thought less
BF babies- 0.5%

CMPA



Images Ref: Dr K Mitchell- consent given General Infant Concerns - Physician Guide to Breastfeeding

NO NEED TO STOP BREASTFEEDING

- Stage 1- exclusion 2-4weeks
- Exclusively breastfeeding mother- remove all cow's milk and dairy products from diet for a period of 2 to 4 weeks.
- Mother will need calcium and vitamin D supplement **
- mixed feeding- diet exclusion and hypoallergic formula

- Stage 2- reintroduction- over 1 week
- Slowly reintroduce- if symptoms return then stop and return to full exclusion diet
- If no symptoms, then can continue cows milk/diary
- During weaning cows milk can be introduced to children

- NICE- non-IgE-mediated CMA can be managed in primary care if the GP feels competent but the mother and baby should be referred to a paediatric dietitian for guidance on introducing solid foods and to support breastfeeding mothers with their own dietary exclusions.
- Advise mum to contact HV *

You should refer to a paediatric when:

- The baby has faltering growth
- There is a question about the diagnosis with ongoing symptoms
- There has been an immediate (IgE-mediated) allergic reaction
- There has been one or more severe delayed (non-IgE-mediated) reactions
- There is more than one food allergy
- If there is severe ongoing eczema where there is a risk of other allergies

BEN



- 13 weeks
- Born full term, CS
- Breastfed
- Mum concerned as vomiting after most feeds
- Sometimes seems uncomfortable with the vomiting
- Weight is stable

GOR/ GORD

GOR

Physiological reflux (GOR) need not adversely affect breastfeeding

Reassurance and education re infant norms

Healthy breastfed infants being fed responsively will regulate their own milk intake *following regurgitation*.

Adequate weight gain, nappy output and a baby who settles well after feeds are indicative of this.

As such there is not the risk of over-feeding that exists for formula fed infants which can exacerbate vomiting.

GORD (NICE 2015)

An infant distressed during or after feeds will be distressing for the parents and may result in a loss of confidence in breastfeeding. This can be reinforced if the baby then develops feed aversion and/or faltering growth.

Reassure them that it is almost always possible to try to treat GORD without stopping breastfeeding.

1. Full breastfeeding assessment
2. 1-2 week trial- alginate feed thickener (e.g. Gaviscon), if effective continue and trial stop every 2weeks * carobel not offered exclusively BF
3. 4 week trial of antacid medication (e.g. Ranitdine*) or PPI at an effective dosage is indicated.

ESME, 10 WEEKS OLD

Call telephone triage list: Mum calling, advised to get baby checked by GP due to poor weight gain

10weeks old
Born NVD, term+10, nil comp pregnancy
Exclusively breastfed
Weight gone 4.4kg at 4 weeks to 4.7kg now



Gone 75th to 25th centile
Head circumfence stable
Clinical examination normal/ no signs dehydration

WEIGHT LOSS IN EARLY DAYS OF LIFE

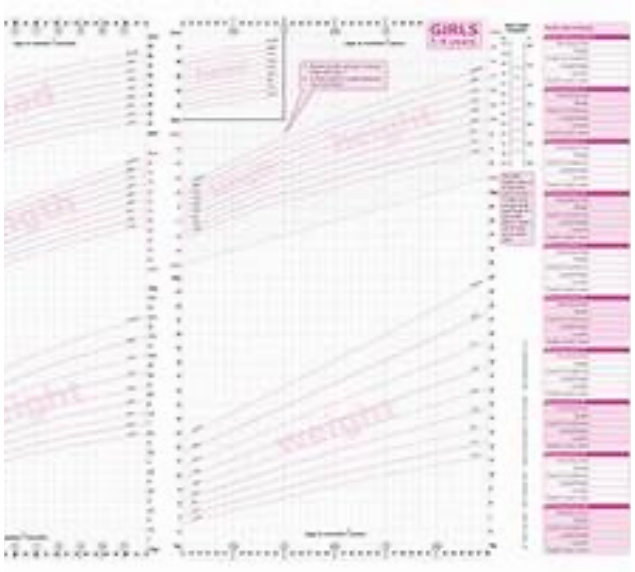
- Clinically assessed for dehydration/illness or disorder
- Detailed history of feeding
- Observation of feeding by trained professional- if concerns given support
- Consider referral to pediatrician or plan to re-measure weight/review
- This is going to be in conjunction with midwifes/ health visitor team/ infant feeding team

If infants lose >10% of their birth weight or haven't returned to birth weight by 3 weeks

It is normal to lose some weight in early days of life

FALTERING GROWTH AFTER THE EARLY DAYS

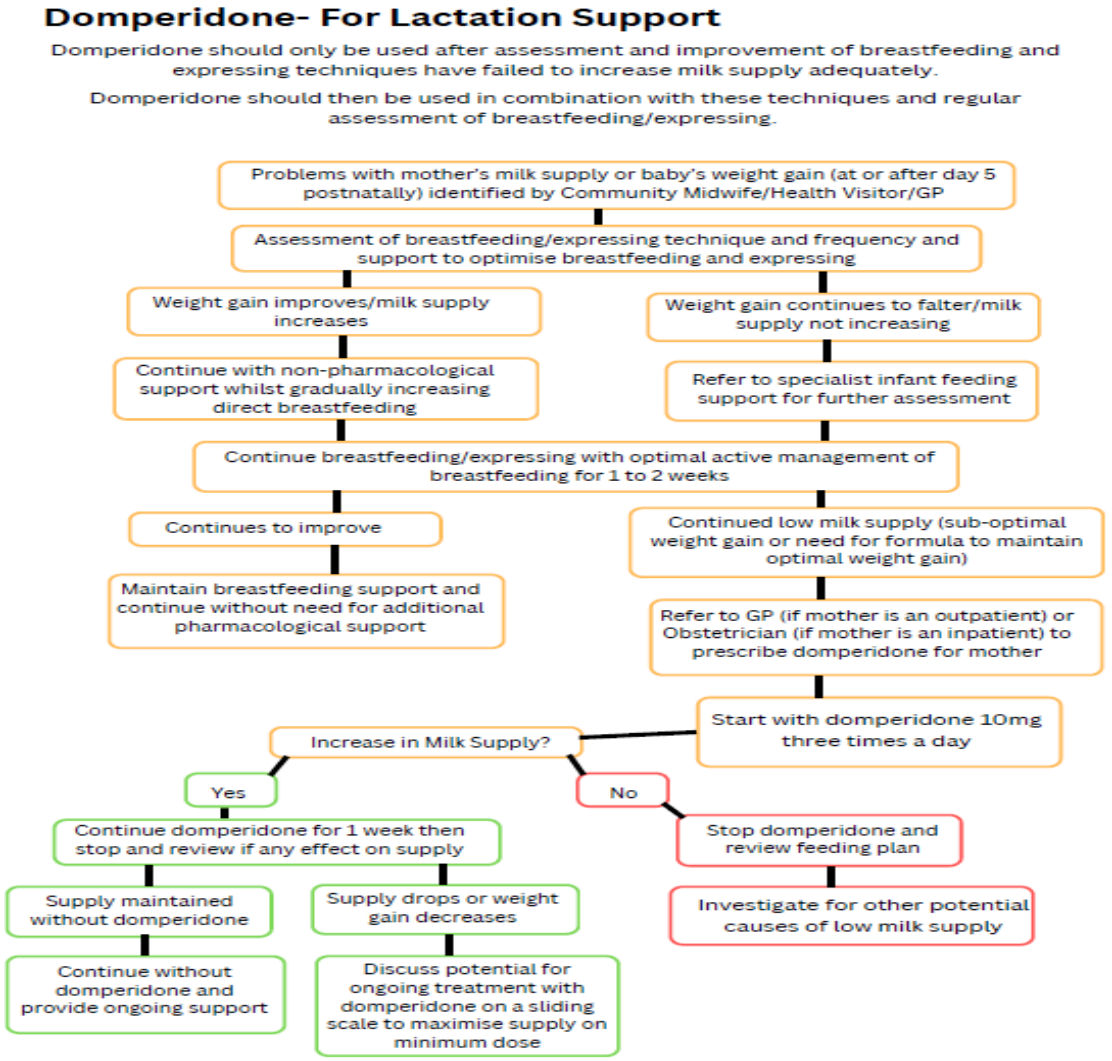
- a fall across **1 or more** weight centile spaces, if birthweight was **below the 9th centile**
- a fall across **2 or more** weight centile spaces, if birthweight was between the **9th and 91st centiles**
- a fall across **3 or more** weight centile spaces, if birthweight was above the **91st centile**
- when current weight **is below the 2nd centile for age**, whatever the birthweight.



GPs role

- perform a clinical, developmental and social assessment
- Ensure accurate weight/ length/ head circumference <2
- take a detailed feeding or eating history
- consider investigating for: — **urinary tract infection/ coeliac disease**
- perform further investigations only if they are indicated based on the clinical assessment.
- **Referral -** symptoms or signs that may indicate an underlying disorder / a failure to respond to interventions delivered in a primary care setting/ slow linear growth or unexplained short stature/ rapid weight loss or severe undernutrition/ features that cause safeguarding concerns

DOMPERIDONE PRESCRIBING PATHWAY



NINA 32YRS OLD

- 1 day history of temperature, headache, runny nose and cough
- Reduced appetite
- Drinking small amounts
- Breastfeeding her 5month old baby
- Worried can she keep breastfeeding if she is sick? Does she need to isolate from baby?



CAN I CONTINUE TO BREASTFEED?



Sick child

- Yes, not only will your milk help your baby to recover more quickly, it is so easily digested it is easier for your baby to absorb the calories and goodness from your milk than any other fluid.
- Breastfeeding is also very comforting for your baby when he is ill.

Sick mother

Majority common illness can BF- URTI/Gastro

Continue to feed as normal if possible,

no need to exclude infant from unwell mother

proper hygiene precautions like handwashing.

If mother can't breastfeed she may need to express

STOPPING BREASTFEEDING



Chloe Trayhurn

- Recommended all children exclusively BF 6months
- Then introduce solids and continue to BF until 2 and beyond (WHO)
- Things to consider:
- Nutritional needs of child
- Gradually reducing best- as BF not just nutrition but comfort
- Reduction risk blocked ducts/ engorgement
- Nursing strike- not always the end
- Can be normal for breast to produce milk for a period of time after cessation- weeks- months-

MEDICATIONS IN BREASTFEEDING

DENISE ROBERTS

BREASTFEEDING & MEDICATION

- Can I take this medicine and feed my baby?
- I've been told I must stop breastfeeding and need this medication, what do I do?
- I've taken a medication – is it safe to feed?

BREASTFEEDING & MEDICATION

What CAN'T you take?

What CAN you take?

High dose Methotrexate

Most cancer chemotherapy

Some Multiple Sclerosis drugs

Drugs that negatively affect your milk supply

Illicit Drugs

Codeine

Everything else!

BREASTFEEDING & MEDICATION

- Potential minefield
- Majority of drugs not licenced for use in lactation
- PIL states 'do not take if you are breastfeeding' or 'consult your doctor or pharmacist before taking this drug'
- So what do we tell the patient?
- Where do we find the necessary information?

NICE MATERNAL & CHILD NUTRITION GUIDANCANCE

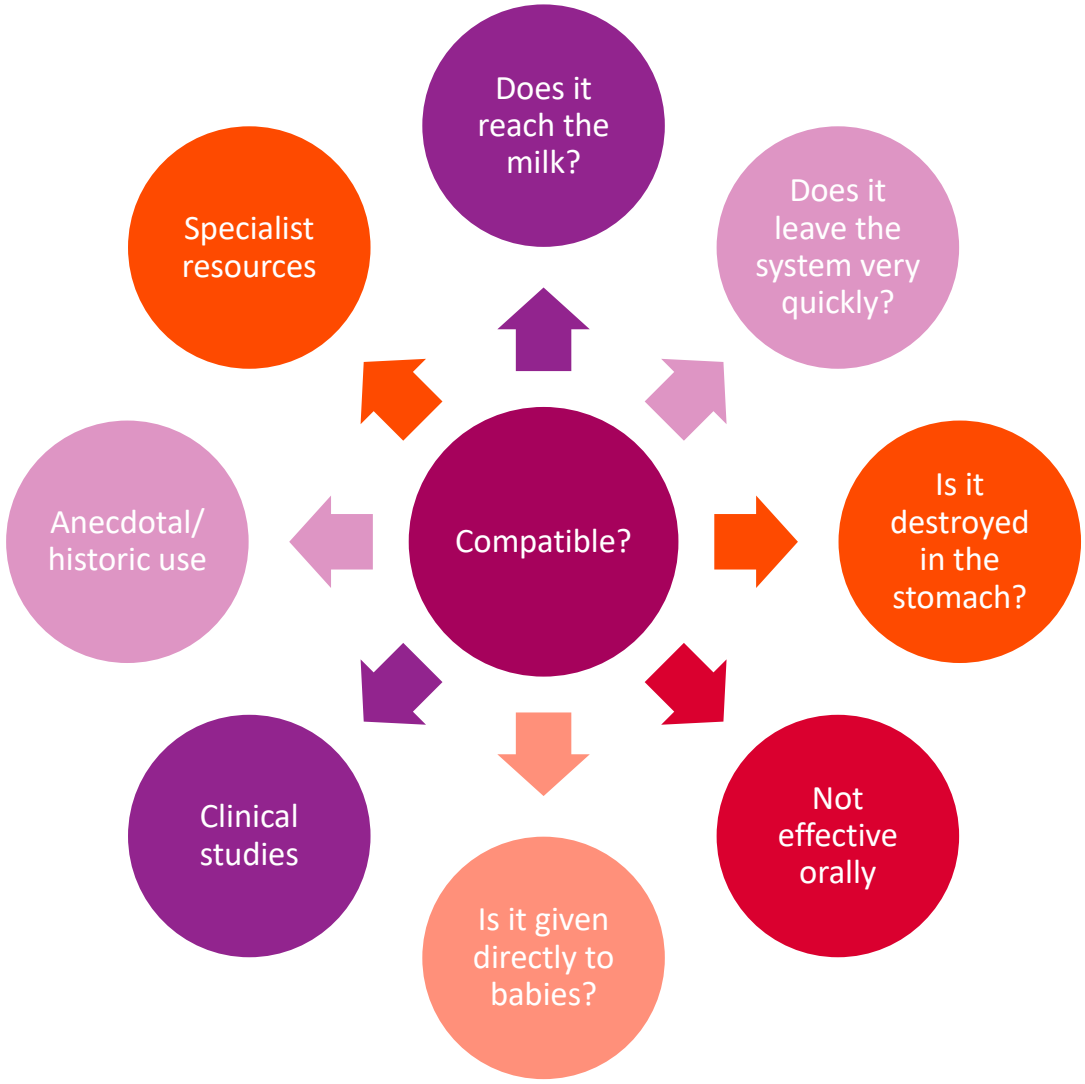
- https://www.nice.org.uk/guidance/ng247
- Use appropriate resources for safe medicine use and prescribing during breastfeeding, such as the UK Drugs in Lactation Advisory Service, to enable continued breastfeeding.

Previously

- Health professionals should discuss the benefits and risks associated with the prescribed medication and encourage the mother to continue breastfeeding, if reasonable to do so. In most cases, it should be possible to identify a suitable medication which is safe to take during breastfeeding by analysing pharmacokinetic and study data. Appendix 5 of the 'British national formulary' should only be used as a guide as it does not contain quantitative data on which to base individual decisions.
- Health professionals should recognise that there may be adverse health consequences for both mother and baby if the mother does not breastfeed. They should also recognise that it may not be easy for the mother to stop breastfeeding abruptly – and that it is difficult to reverse.

PHARMACOKINETICS

- Oral bioavailability
- Route of administration
- First-pass metabolism
- Active metabolites
- Plasma protein binding
- Milk:plasma ratio
- Molecular weight
- Drug half-life
- Relative infant dose
- Duration of use


Does it reach the milk?
Does it leave the system very quickly?
Is it destroyed in the stomach?
Not effective orally
Is it given directly to babies?
Clinical studies
Anecdotal/ historic use
Specialist resources
Compatible?

TIMING OF MEDICATIONS AND FEEDS

- Drugs with a long half-life may accumulate
- Regular medications reach steady state in days
- Often no benefit of timing dose with feeds

BARRIERS


Dr Google
Social Media
Family opinion
Judgement
Health Professional
Fear
Misinformation
Friends
?

COMMON CHALLENGES: SEDATING MEDICATION

Framing of risk	Safe sleep	Codeine
Night feeds	Family support?	Care of the infant

- BASIS – the baby sleep info source
- https://www.basisonline.org.uk/

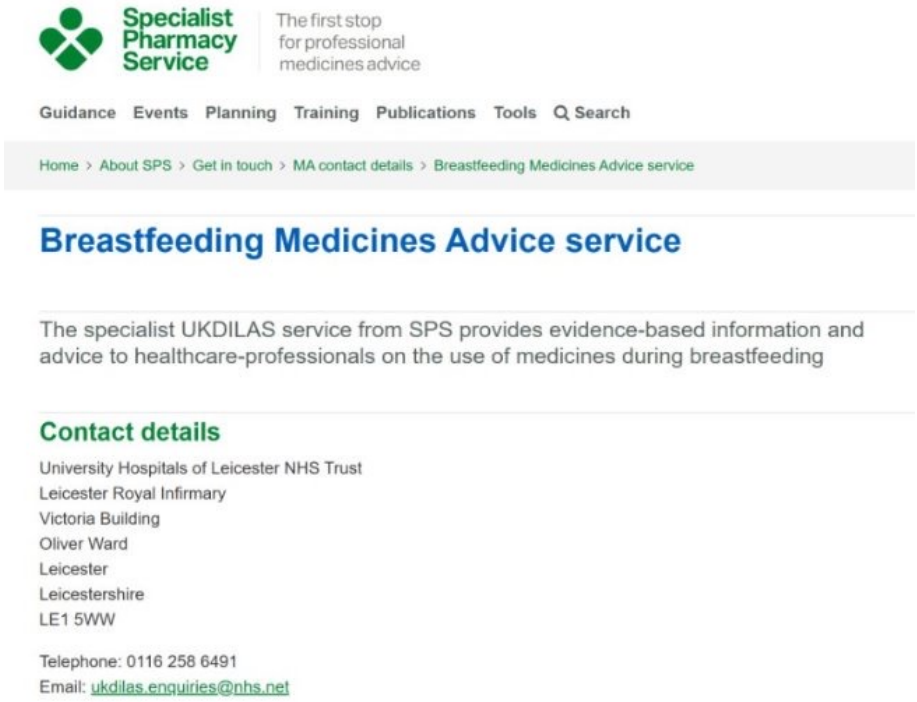
HOW TO FIND INFORMATION ON AN INDIVIDUAL DRUG



FURTHER SUPPORT

- Email: druginformation@breastfeedingnetwork.org.uk or message The Breastfeeding Network Drugs in Breastmilk Service Facebook page
- Please provide as much information as possible (including your postcode, age of baby, name of medication or drug, dose and frequency)
- Our volunteer pharmacists respond to enquiries every day of the year within the hours of 8:30am-8:30pm
- We answer enquiries as soon as possible and try to respond within 24 hours

UKDILAS (UK DRUGS IN LACTATION ADVISORY SERVICE)



Specialist Pharmacy Service

The first stop for professional medicines advice

Guidance Events Planning Training Publications Tools Search

Home > About SPS > Get in touch > MA contact details > Breastfeeding Medicines Advice service

Breastfeeding Medicines Advice service

The specialist UKDILAS service from SPS provides evidence-based information and advice to healthcare-professionals on the use of medicines during breastfeeding

Contact details

University Hospitals of Leicester NHS Trust
Leicester Royal Infirmary
Victoria Building
Oliver Ward
Leicester
Leicestershire
LE1 5WW

Telephone: 0116 258 6491
Email: ukdilas.enquiries@nhs.net

WHAT DO THE MANUFACTURERS SAY – EXAMPLE: RIVAROXABAN

Breast feeding

Manufacturer advises avoid—present in milk in *animal* studies.

Specialist Pharmacy Service

The first stop for professional medicines advice

About · Lo

Guidance Events Planning Training Publications Tools Search

PGDs Administering Cautions and contraindications Dosing Switching Deprescribing Interactions Medication Safety Safety in breastfeedi

Using oral anticoagulants during breastfeeding

Published 2 November 2021 · Last updated 6 December 2024 · **See all updates**

Topics: Apixaban · Dabigatran etexilate · Edoxaban · 4 more

Warfarin is the preferred choice during breastfeeding; rivaroxaban or dabigatran may also be used. Recommendations apply to full term and healthy infants.

Rivaroxaban can be used during breastfeeding, although infant monitoring is required.

Infant monitoring

- As a precaution, monitor the infant for bruising on the skin, blood in urine, vomit, or stools.
- Monitoring the infant will quickly pick up any potential issues but usually further investigation is required before the cause can be attributed to the medicine.

Further information

- There is limited published evidence of use during breastfeeding.
- Although rivaroxaban has a high oral bioavailability, very low levels are expected in milk due to its other pharmacokinetic properties, so infant exposure should still be minimal.
- Limited evidence from maternal doses between 15 and 30mg rivaroxaban daily have reported very small amounts in breast milk, (weight-adjusted maternal dose 1.3% to 5%).
- Blood samples from three new-born breastfed infants, whose mothers were taking rivaroxaban 15mg daily, showed undetectable levels of rivaroxaban.
- From the limited published evidence, no side effects have been observed in infants after exposure to rivaroxaban through breast milk.

Summary of Use during Lactation

Several case reports and one thorough pharmacokinetic analysis consistently indicate that maternal doses of **rivaroxaban** of 15 to 30 mg daily produce low levels in milk that are considerably below doses (<2%) required for anticoagulation in infants. Plasma **rivaroxaban** levels in two breastfed infants were undetectable. If the mother requires **rivaroxaban**, it is not a reason to discontinue breastfeeding.[1]

Compatible

Safe product and/or breastfeeding is the best option.

Direct inhibitor of factor Xa, indicated for the prevention of thromboembolism. Oral administration every 12 to 24 hours.

Its pharmacokinetic data (large volume of distribution and high percentage of protein binding) explain the minimal passage into milk that has been repeatedly observed. (Yamashita 2024, Zhao 2020, Muysson 2020, Saito 2019, Wiesen 2016)

No clinical or hematologic problems were observed in infants of rivaroxaban-treated mothers from the first postpartum week. (Yamashita 2024, Saito 2019)

Plasma levels in these infants were below the limit of detection. (Yamashita 2024)

Several experts and expert consensus consider safe or very likely safe the use of this medication during breastfeeding. (Yamashita 2024, LactMed, Hale, Daei 2021, Zhao 2020)

RIVAROXABAN

each mother transitioned to 20 mg once daily. The maximum concentration of rivaroxaban observed for the 15 mg dose was 0.3 ± 0.02 µg/mL and that for the 20 mg dose was 0.26 ± 0.01 µg/mL. The relative infant dose (RID) was calculated to be 5% and 4%, respectively. This relatively low infant dose is probably explained by the high plasma protein binding of rivaroxaban and its subsequent poor penetration into human milk. The results indicate that rivaroxaban decreased to a minimum concentration over a period of 12-hours. In these two cases, levels of rivaroxaban in milk were quite low, with an RID of 4% of the maternal dose. Although the levels detected were low, rivaroxaban does transfer to breast milk. Caution should be exercised until further studies are conducted and report the safety profile of rivaroxaban in breastfeeding infants.

A 38-year-old female diagnosed with the antiphospholipid syndrome had received rivaroxaban (15 mg/day) after delivery.[4] The infant was partially breastfed until the age of 18 months. The mean minimum and maximum rivaroxaban concentrations in breast milk were 9.73 ng/mL before each dose and 53.9 ng/mL at 6-hours after each dose, respectively. In this study with a 15 mg dose at 18 months postpartum, the mean daily infant dose was 0.0034 mg/kg and the mean relative infant dose (RID) via breast milk was 1.79%. Another study evaluated milk concentrations in two women after a single dose of 20mg oral rivaroxaban exhibited similar results, further verifying validity of low drug transfer.[5]

While more studies on milk transfer and infant followup are prudent, rivaroxaban is shaping up to be an option for breastfeeding mothers. Doses from breastmilk are over 100 times lower than doses given directly to pediatric patients.

T ½	5-9 h
M/P	0.4
Tmax	2-4 h
PB	92%-95%
MW	435

Oral	66%-100%
Vd	0.7
pKa	
RID	0.68% - 3.78%

USEFUL RESOURCES

Drugs in Breastmilk factsheets

https://www.breastfeedingnetwork.org.uk/drugs-factsheets/

Wendy Jones' website

https://breastfeeding-and-medication.co.uk/

LactMed / LactRx app

https://www.ncbi.nlm.nih.gov/books/NBK501922/

UKDILAS

https://www.sps.nhs.uk/articles/ukdilas/

Hale *subscription required*

- App
- Website https://www.halesmeds.com/login

USEFUL RESOURCES

SPS Safety in breastfeeding resources

https://www.sps.nhs.uk/home/guidance/safety-in-breastfeeding/

E-Lactancia

http://www.e-lactancia.org/

Drugs in Pregnancy & Lactation (Briggs) *subscription required*

BUMPS (Best use of medicines in pregnancy)

https://www.medicinesinpregnancy.org/Medicine--pregnancy/

CONTRACEPTION

- Lactational Amenorrhoea Method – up to 98% effective but only if ALL of following conditions are met:
  - Baby under 6 months old
  - Fully breastfed
  - Breastfeeding at least every 4 hours during the day and at least every 6 hours during the night
  - Periods have not returned
  - Not using any dummy/pacifiers

CONTRACEPTION

- Progesterone Only Pill
  - Generally recommended during breastfeeding
  - Ideally not before 6 weeks post delivery – may interfere with priming of prolactin receptors
  - Some reports of drop in milk supply

CONTRACEPTION

- Combined Oral Contraceptive
  - UKMEC – suitable to start after 6 weeks
  - Previous guidelines not suitable in first 6 months
  - If supply diminishes can stop and restimulate supply with frequent breastfeeds (ensure taking additional precautions)
  - Drop in milk supply – report to MHRA
    - http://yellowcard.mhra.gov.uk/

- Contraceptive patch
  - Combined contraceptive – similar concerns

CONTRACEPTION

- Long Acting Reversible Contraception
  - Progesterone injection
  - Progesterone subdermal implant
  - Levonorgestrel releasing IUD
  - Copper coil

- Decreased milk supply – report to MHRA
  - http://yellowcard.mhra.gov.uk/

EMERGENCY CONTRACEPTION

- Copper coil or single dose levonorgestrel (Levonelle) preferred
- EHC
  - Both Levonelle and EllaOne (ulipristal) can be used
  - No delay or BF interruption needed
  - Levonelle PIL suggests 8 hour interruption
  - EllaOne manufacturer recommends avoiding breastfeeding for 1 week
  - NOT supported by research

FSRH Statement: Ulipristal Acetate and Breastfeeding

Published on: 24 January 2025

Following a review of the current recommendation, which states that breast milk should be expressed and discarded for one week after Ulipristal Acetate, members of the Guideline Development Group for the FSRH Guideline Emergency Contraception have agreed a recommendation that there is no need to avoid breastfeeding after taking a single dose of UPA-EC. This is in line with recommendations from the UK Drugs in Lactation Advisory Service, which are published on the Specialist Pharmacy Service website.



DON'T SAY STOP... LOOK IT UP!

BREASTFEEDING SUPPORT

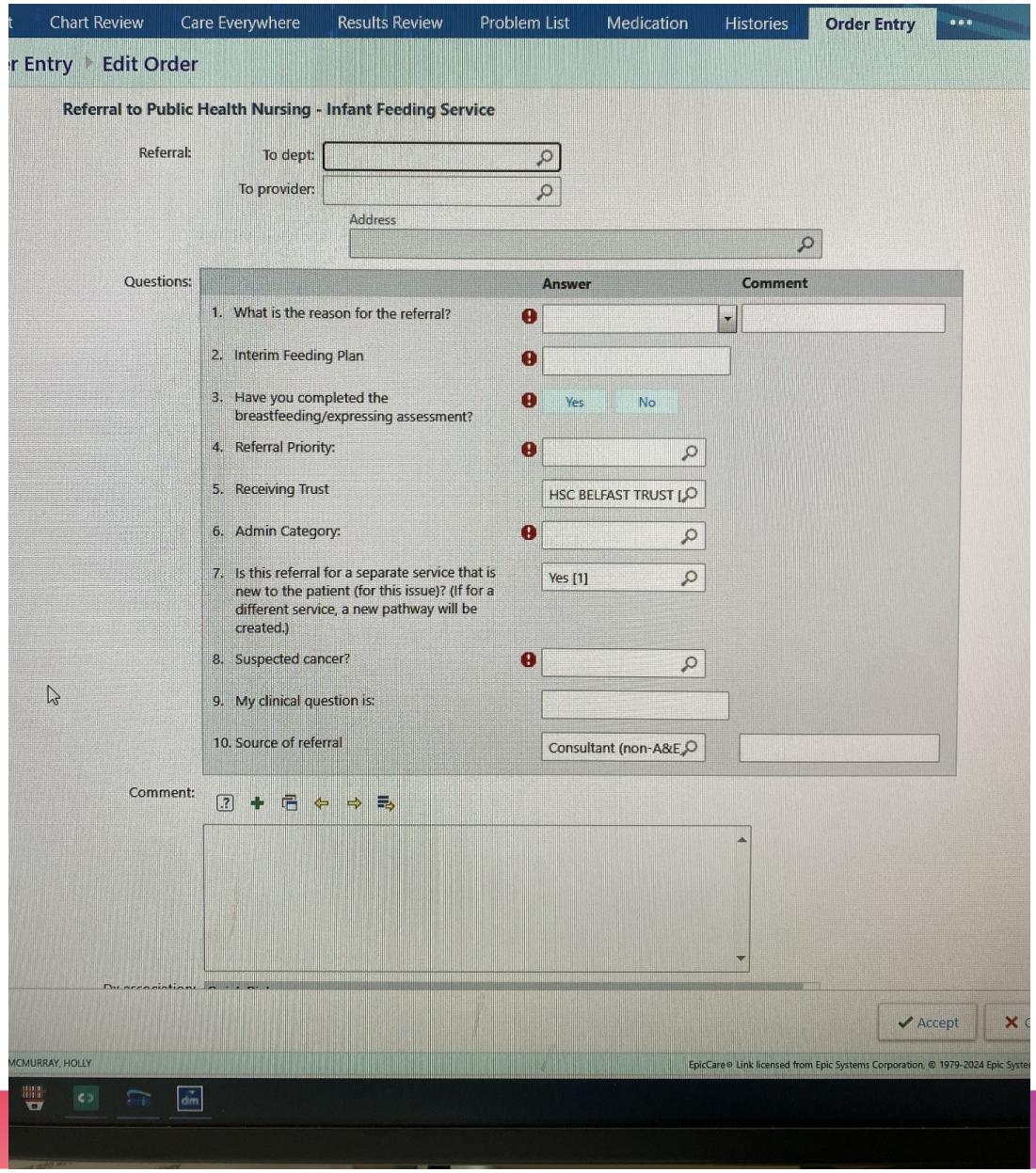
Trust	For BF Assessment/ Support	For Specialist BF Support
BELFAST	Contact MW or HV associated with GP Practice or HV Helpline 02895040846	Encompass Referral Email: Specilaistbfsupport@belfasttrust.hscni.net Infant Feeding Team Direct Line 02896150005 48 hr Response time excluding BH and Weekends.
NORTHERN	Contact MW or HV associated with GP Practice	Encompass Referral Email: Specilaistbfsupport@northerntrust.hscni.net
SOUTH EASTERN	Contact MW or HV associated with GP Practice	Encompass Referral Email: **ComSpecBreastfeeding@set.hscni.net** Kelly Leonard: 07872419908
SOUTHERN	Contact MW or HV associated with GP Practice Infant Feeding Helpline: 07342065152 (Mon – Fri 6-9pm Excludes BH)	Encompass Referral Contact: Ruth.McGowan@southerntrust.hscni.net 028 37564317 or 07342077044.
WESTERN	Contact Named MW or HV	Encompass Referral Contact: Brona.mcsorley@westerntrust.hscni.net 07901511975 or Nicola.Burchmore@westerntrust.hscni.net 07825364609

SPECIALIST BREASTFEEDING SUPPORT REFERRALS

- Complete via EpiCare Link under the infant's name.
- Add referral code 492 for community team
- Advise HV or Midwife if possible

OR

- Send an email to relevant trust email address.


Chart Review
Care Everywhere
Results Review
Problem List
Medication
Histories
Order Entry
r Entry
Edit Order
Referral to Public Health Nursing - Infant Feeding Service
Referral:
To dept:
To provider:
Address
Questions:
Answer
Comment
1. What is the reason for the referral?
2. Interim Feeding Plan
3. Have you completed the breastfeeding/expressing assessment?
Yes
No
4. Referral Priority:
5. Receiving Trust
HSC BELFAST TRUST
6. Admin Category:
7. Is this referral for a separate service that is new to the patient (for this issue)? (If for a different service, a new pathway will be created.)
Yes [1]
8. Suspected cancer?
9. My clinical question is:
10. Source of referral
Consultant (non-A&E
Comment:
Accept
MCMURRAY, HOLLY
EpicCare® Link licensed from Epic Systems Corporation. © 1979-2024 Epic Syste

BREASTFEEDING PEER SUPPORT SERVICE

- All breastfeeding mums are offered peer support
- Peer Support Link Worker links mum to volunteer
- Voluntary Service – BHSCT currently 50 mums
- Aims to provide a support network for breastfeeding families and encourage mums to breastfeed for longer.
- BHSCT- 07562435531
- NHSCT- 07500891884
- SET- 07855169707
- SHSCT- 07823532306
- WHSCT- 07795043205



SPECIALIST BREASTFEEDING SUPPORT SERVICE

- Service user feedback is collated and analysed quarterly.

"I had a very positive experience that massively improved my breastfeeding journey. The specialist was supportive, reassuring and provided very useful advice and guidance."

"I don't feel that I would have continued breast feeding without her support and I am very grateful for the service."

"Very knowledgeable, patient and compassionate and really helped during a difficult time."

"Very supportive with the very difficult time I went through with my breast feeding experience. They were very caring and sensitive. I was unable to continue with breast feeding due (to) a number of concerns. However felt supported in my decision. The advice they provided was excellent."

"Visited me at home and was absolutely fabulous. She covered all areas, reassured me and put me at ease! I enjoyed having her visit and helping me with my breastfeeding journey."

QIP IDEAS

HOW TO MAKE MY PRACTICE MORE BREASTFEEDING FRIENDLY?

- Sign up to breastfeeding welcome here scheme
- Do you have a practice breastfeeding returning to work policy?
- At infant vaccinations are adequate infant changing/ feeding spaces made available?
- Practice nurses supportive of breastfeeding mothers nursing during vaccination
- https://gpifn.org.uk/the-gp-practice/



FURTHER LEARNING FOR GPS/ USEFUL LINKS

E-learning for GPs - Baby Friendly Initiative

The Breastfeeding Network | Independent Breastfeeding Support

https://www.breastfedbabies.org/breastfeeding-advice-and-guidance

https://cks.nice.org.uk/topics/breastfeeding-problems/diagnosis/

Scenario: Breastfeeding problems - management | Management | Breastfeeding problems | CKS | NICE

The GP Infant Feeding Network (UK) | A Website to Assist Primary Care Practitioners with Best Practice in Infant Feeding

https://physicianguidetobreastfeeding.org/



EXTRA SLIDES

NIPPLE VASOSPASM OR RAYNAUD'S DISEASE OF THE NIPPLE:

- Nipple pain (may be described as shooting, throbbing or burning) is typically intermittent, and present during and immediately after breastfeeds, and in between feeds if exposed to cold temperatures.
- Blanching of the nipple may be followed by cyanosis and/or erythema.
- Nipple pain resolves when the nipple returns to its normal colour.
- There may be a personal or family history of Raynaud's phenomenon of the digits

Management

- Advise on avoiding exposure to the cold, wearing warm clothing, and breastfeeding in a warm environment and self-management techniques such as the use of heat packs or a warm shower following a breastfeed or when there is breast pain.
- Advise on avoiding caffeine and stopping smoking which can cause vasoconstriction, if appropriate.
- High dose b6/magnesium/calcium/fatty acids and fish oils
- If symptoms persist, consider discussion with/referral to an appropriate specialist, for consideration of a trial of oral nifedipine (off-label indication).

TONGUE TIE

- Currently no Nurse Lead Tongue tie service in BHSCT (Private referral)
- All other Trusts have a Nurse lead provision – refer via Midwife/ HV or encompass to Midwifery/ acute services
- Breastfeeding challenges associated with Tongue tie.

Mother	Baby
Engorgement	Difficulty latching
Blocked ducts	Ineffective feeding
Mastitis	Crying
Pain	Excessive weight loss
Misshapen nipples	Slow weight gain
Reduced milk supply	Constant/frequent feeding
Frustration/tiredness	Frustrated
Loss of confidence	



WHITE SPOTS/BLEBS

Milium: painless

Milk blister/bleb: exquisitely painful

Hyperkeratosis of Lactation related white spot

Management- effective attachment at breast/ reduce nipple trauma if pumping

DON'T POP/SQUEEZE and apply topical applications





SKIN CONDITIONS AND BREASTFEEDING

- Eczema typically causes a bilateral red, dry, scaly rash which may have lichenified (thickened) areas, which tend to spare the base of the nipple,
- Psoriasis typically causes red plaques with clearly demarcated borders, which may have a fine overlying scale.
- Irritant dermatitis may occur due to soaps, nipple creams and other substances in direct contact with the breast.







Herpes simplex infection

Papilloma of nipple





Hyperkeratosis of nipple

Pagets disease nipple



POSTPARTUM BREAST CANCER

Postpartum breast cancer has a **higher risk of metastatic spread** relative to other forms of breast cancer.

Axillary and supraclavicular lymph node examination is required when lactating women present with a breast lump.

A persistent lactation-related breast lump requires ultrasound imaging and further investigation as indicated, to exclude malignant inflammatory masses or benign non-lactation-related masses.

The period of time a new lump in a lactating breast can be observed before investigation depends on **clinical context but threshold for imaging should remain low.**

Breastfeeding reduces breast cancer risk; the longer a person breastfeeds the more their risk is reduced.

The risk of breast cancer decreases by around 4% for every 12 months of breastfeeding.

LOW MILK SUPPLY

- True low milk supply is unusual
- Most common cause- reduced milk intake by infant- effective milk removal is needed to stimulate milk supply.

1. Insufficient access to the breast (short or infrequent feeds, no night feeds, use of a dummy, nipple shield, or giving supplementary feeds other than breast milk, maternal or infant illness or regular mother-child separation for example due to work) – this results in reduced suckling at the breast and subsequently reduced milk production.
2. Suboptimal removal of milk, for example due to incorrect infant positioning and attachment.
3. Maternal depression, stress, and/or anxiety, which may result in a reduced response to infant feeding cues and a reduced frequency of feeds and reduced stimulation of milk production.

- Maternal prolactin deficiency related to: medication/ anterior pituitary dysfunction/ retained placenta/ thyroid issues/ eating disorders
- Maternal anatomical factors- rare

Table 1 Vitamin supplements for babies and children under 5 years			
Age	Breastfed	Formula-fed (500 ml/day or more)	Daily dose of vitamin D
0 to 6 months	Vitamin D or Healthy Start vitamins if eligible	None (formula is fortified)	8.5 to 10 micrograms (340 to 400 IU)
6 to 12 months	Vitamins A, C and D	None (formula is fortified)	8.5 to 10 micrograms (340 to 400 IU)
1 to 4 years	Vitamins A, C and D (note that Healthy Start vitamins are only available up to the child's fourth birthday)	Vitamins A, C and D (note that formula is not needed from 1 year)	10 micrograms (400 IU)

BREASTFEEDING PEER SUPPORT

In some areas, new mothers can talk to a breastfeeding peer supporter. They are mothers who breastfed their babies, want to help other mothers and have had training.

Mum-to-Mum: 028 9504 4246 (Belfast Trust area)
Mid-Ulster Mums: 028 8676 9994
Mums 4 Mums: 028 2827 6044 (Larne area)
Gold MUMS: 07801 413 576
South Eastern Trust Breastfeeding Peer Support: 07855 169 707

BREASTFEEDING COUNSELLORS

- Voluntary breastfeeding counsellors can give you telephone advice about breastfeeding problems.
- National Breastfeeding Helpline: 0300 100 0212 (9.30am–9.30pm)
- The Breastfeeding Network: 0300 100 0210
- Association of Breastfeeding Mothers: 0300 330 5453 (open 9.30am–10.30pm)
- La Leche League: 028 9581 8118 (24 hours)
- National Childbirth Trust: 0300 330 0700 (8am–Midnight)

LA LECHE LEAGUE LOCAL BREASTFEEDING COUNSELLORS

La Leche League Breastfeeding Support - Local helpline 028 95818118

La Leche League Leaders are internationally accredited breastfeeding counsellors.

Currently hosting bi-monthly online meetings on the 2nd and 4th Friday at 9-30am to 11-30. Please phone the helpline 028 95818118 or message our Facebook page https://www.facebook.com/profile.php?id=100080147831992 for logon details.

Grainne is running face-to-face meetings in Maghera in the Northern Board on the 2nd and 4th Monday of the month. Please contact Grainne for details or see the facebook page.

We are also hosting a WhatsApp group.

Local Leaders are available on

Pádraigín – 07786671176 (Belfast)

Sarah – 07772317523 (Carrickfergus)

Adele – 07816758780 (Enniskillen)

Grainne – 07988712895 (Maghera)

La Leche League GB