

# Breastfeeding and diagnostic procedures and treatments

Dr Wendy Jones MBE





# What does it take for a breastfeeding mum to prepare for an investigation or a procedure

- › Stress
- › Childcare
- › Expressing?
- › Time off work?
- › Stress!
- › Different information
- › How to manage breastfeeding



## Dental procedures

- › Local anaesthetic
- › Amalgam/ white fillings
- › Antibiotics
- › Sedation
- › Anxiety
- › Painkillers
- › Training of dentists????
- › Night feeds for baby and decay



# MRI Scans

- › **Contrast** – express and discard for 24 hours guidelines
  - Manufacturer data sheet “No data exist concerning intra-articular administration in lactating women. After intravascular use minimal amounts of gadopentetic acid, dimeglumine salt (a maximum of 0.04%) of the intravenously administered dose enters the breast milk. From experience gained so far, harm to the breast-fed infant is considered unlikely.”
- › **Gadolinium / gadopentate**
  - 0.02% - 0.04%, oral bio-availability 0.8%, half life max 1.7 hours
- › **Hyoscine** (Buscopan®) – no paed concerns reported from levels in breastmilk
- › **Mannitol** – 72 hours after birth cant pass into cellular compartment, oral bio-availability 17%

‘For all IV iodinated contrast and gadolinium, contrast administration to the mother is considered safe for both the baby and nursing mother.’ However, it goes on to say: ‘Mothers who are breastfeeding should be given the opportunity to make an informed decision as to whether to continue or temporarily abstain from breastfeeding after receiving IV contrast. If the mother remains concerned about any potential ill effects to the infant, she may abstain from breast-feeding for 24 hours with active expression and discarding of breast milk from both breasts during that period. In anticipation of this, she may wish to use a breast pump to obtain milk before the contrast study to feed the infant during the 24-hour period following the examination.’ (ACR)



## The problems caused by lack of understanding about the safety of drugs in lactation

“Rocked up at 8am with my 5 month old (and my husband to babysit whilst I was having my MRI), 20 minutes later I was back in the car on the way home because I supposedly couldn’t have it whilst breastfeeding! He’s nearly 1 now and I just had the MRI last week - still breastfeeding.”

- › What was the cost to the health service of the cancellation?
- › What about the mother’s health – she waited > 7 months
- › Was it necessary?
  - oral bioavailability of gadolinium = 0.8%, half-life = 1.7 hours, ( $5 \times t_{1/2} = 8.5$  hours)



## CT scans

- › “Review of the literature shows no evidence to suggest that oral ingestion by an infant of the tiny amount of contrast medium excreted into breast milk would cause toxic effects.... it is safe for the mother and infant to continue breast-feeding after receiving such an agent” (ACR)
- › Contrast agents
  - Diatrizoate (gastrogafin<sup>®</sup>) oral bioavailability 0.04-1.2 % , half life 120 mins
  - Iohexol (omnipaque<sup>®</sup>) oral bioavailability poor, half life 3.4 h
- › Guidelines quoted – express and discard for 24 hours



## Local anaesthetics

- › Used in sutures
- › Used in dental procedures
- › But if used to drain an abscess recommendation is to avoid breastfeeding for 24 hours
- › With steroid for joint pain – need to stop breastfeeding
- › Why are we so scared?



## VQ scans

- › This is a special type of X-ray which is used to help diagnose pulmonary embolism which is a blood clot in the lungs. Although a pulmonary embolus is rare, it can be life threatening if not treated immediately. (1-2 in 100,000 pregnant women will die from a pulmonary embolus during or after pregnancy)
- › If you are breast-feeding, it is advised that you stop breast-feeding for the 24 hours after the scan. This is so that your baby is not unnecessarily exposed to radiation. During this time, your milk can be expressed, but it need not be discarded. It can be stored in the fridge and can be used to feed your baby 24 hours after the VQ scan. (Inside radiology)
- › Other sources recommend 12 hours – depends on dose of radioactive agent



## Colonoscopy

- › Bowel prep in advance
- › Period of not eating solids – breastfeeding mums get hungry!
- › Feeding after the bowel prep has taken effect!
- › Sedation
- › Gas and air
- › Feeding after the procedure
- › Breastfeeding can continue as normal throughout the prep and as soon as mum is awake and alert after procedure



## Endoscopy

- › Fasting before procedure
- › Sedation
- › Local anaesthetic spray into throat



## SeHCAT

- › Test for bile acid malabsorption. Poor absorption leads to chronic diarrhoea
  - Day 1: On your first appointment you will be asked to swallow a small SeHCAT capsule with a glass of water. A scan will then be undertaken three hours later. Day 7: On your second appointment you will only have a scan
- › Breast-feeding: Before administering a radioactive medicinal product to a mother who is breast feeding consideration should be given as to whether the investigation could be reasonably delayed until after the mother has ceased breast feeding and as to whether the most appropriate choice of radiopharmaceutical has been made, bearing in mind the secretion of activity in breast milk. If the administration is considered necessary, breast feeding should be interrupted. Breast milk should be expressed and discarded about three to four hours after [<sup>75</sup>Se]tauroselcholic acid administration, after which breast feeding can be resumed.
- › <https://www.nice.org.uk/guidance/dg7/documents/sehcat-final-scope2>



## Miscarriage

- › Mum is already going to be emotional
- › To be told she has to stop breastfeeding as well is double loss
- › Mifepristone
- › Misoprostol
- › Pain relief
- › Will she be able to go home to deliver the foetus ? What to expect?
- › Return of her milk again



## Ectopic pregnancy

- › Positive pregnancy test but vaginal bleeding
- › Abdo pain
- › Pain in the tip of shoulder
- › May be a pregnancy of unknown location
- › Transvaginal ultra sound
- › Monitor HCG levels
- › Nausea eases
- › Methotrexate – stop breastfeeding for 24 hours but cant conceive for 3 months
- › Surgical options to remove products
- › Emotional
  - what of the future?
  - May not have told others she was pregnant?
  - Grief



## Termination

- › Emotional
- › May be accidental pregnancy as wasn't taking precautions
- › People have many different reasons and many different reactions – sensitivity is essential
- › Wish to continue breastfeeding older baby
- › Medical options – mifepristone and misoprostol
- › Surgical options
- › Impact on milk supply



## Stillbirth and breastfeeding

- › Cabergoline
- › Bromocriptine
- › Side effects
- › Milk coming in doesn't increase grief, it is a reminder
- › Some mums appreciate opportunity to express and donate in memory of their baby



## Other tests and procedures

- › Mammogram – difficult to interpret on lactating breast and painful
- › Ultra sound scan
- › X ray
- › Echocardiogram
- › Lumbar puncture



## General anaesthetics

- › I am breastfeeding my 9 month old daughter. She is healthy although has allergies to dairy and soya.
- › I am due to have surgery on my foot the op will be roughly 2hours under GA.
- › At my pre-op the nurses told me they thought I had to pump and dump for 24hours. I'm sure this isn't the case, but are there any drugs which need to be avoided? I have had 4 GAs and 6 sedations in the last month for dislocated ankles but apparently they are different as only short acting?



## General anaesthetic 2

- › There are no papers that recommend anything other than that mums can feed as soon as they are awake and alert after the operation
- › Most drugs have very short half lives
- › Many are not orally bio-available
- › Risks of interrupting breastfeeding
- › If mum expresses can she store milk on the ward?
- › Can baby be brought to her to feed?
- › Can another adult stay with her to look after baby?
- › Co-sleeping after surgery is greater risk



## Sedation

- › Midazolam – 40-50% oral bio-availability, RID 0.63%, half life 3 hours. Studies recommended not breastfeeding for 4 hours if baby < 2 months but undetectable at that stage. Studies on use as hypnotic in first 6 days compared to nitrazepam
- › Fentanyl – 50-75% oral bio-availability, RID <5%, half life 2-4 hours. Transfer poor and clinically insignificant
- › Pethidine/ meperidine - <50% oral bio-availability, RID 1.1-13%, half life 2-4 hours. Greater risk
- › Diazepam – complete oral bio-availability, RID 0.88% - 7.14% , half life 43 hours. BUT a single dose doesn't seem to sedate babies, risk only of accumulation if repeated



## Enquiries

“I’m breastfeeding my 9 month old and going in for surgery 2 weeks today, (I’ve been waiting a long time for it). I had my pre op today and they’ve said I can’t breastfeed for 24hrs because of the anaesthetic. Is this right? Also, what pain relief besides paracetamol and ibuprofen am I allowed? They’ve said I’ll be sent home with co-codamol? My son won’t take a bottle or milk in any form except straight from the source so I’m really worried.”



## Survey monkey

- › Survey monkey of 7 questions sent out via social media –respondents had to have been breastfeeding and had GA in previous 12 months
- › Comments made on the original post
- › Comments from health visitors and peer supporters invited
- › 223 survey monkey responses
- › 45 free text comments



## Caesarean section under GA

- › 25% of all births are caesarean sections
- › Less common than under regional anaesthesia, sections under GA still 5% of c sections
- › Usually as emergency or where epidural is greater risk e.g. spinal damage, blood clotting disorders

# Do women who have a caesarean section breastfeed?

- › IFS 2010 - 62% discharged exclusively breastfeeding compared to 77% after vaginal birth
- › Less skin to skin? (IFS - 78% cf 92%)
- › Pain and discomfort?
- › Difficulty picking up baby
- › Milk takes longer to come in?
- › Trauma?



# Do we tell mums they can breastfeed after a c section

## **Absolutely yes if they wish to**

- › We should ensure they have adequate pain relief and support to breastfeed
  - Paracetamol and ibuprofen/diclofenac/naproxen
  - Oramorph
  - dihydrocodeine
  - A breast pump if needed

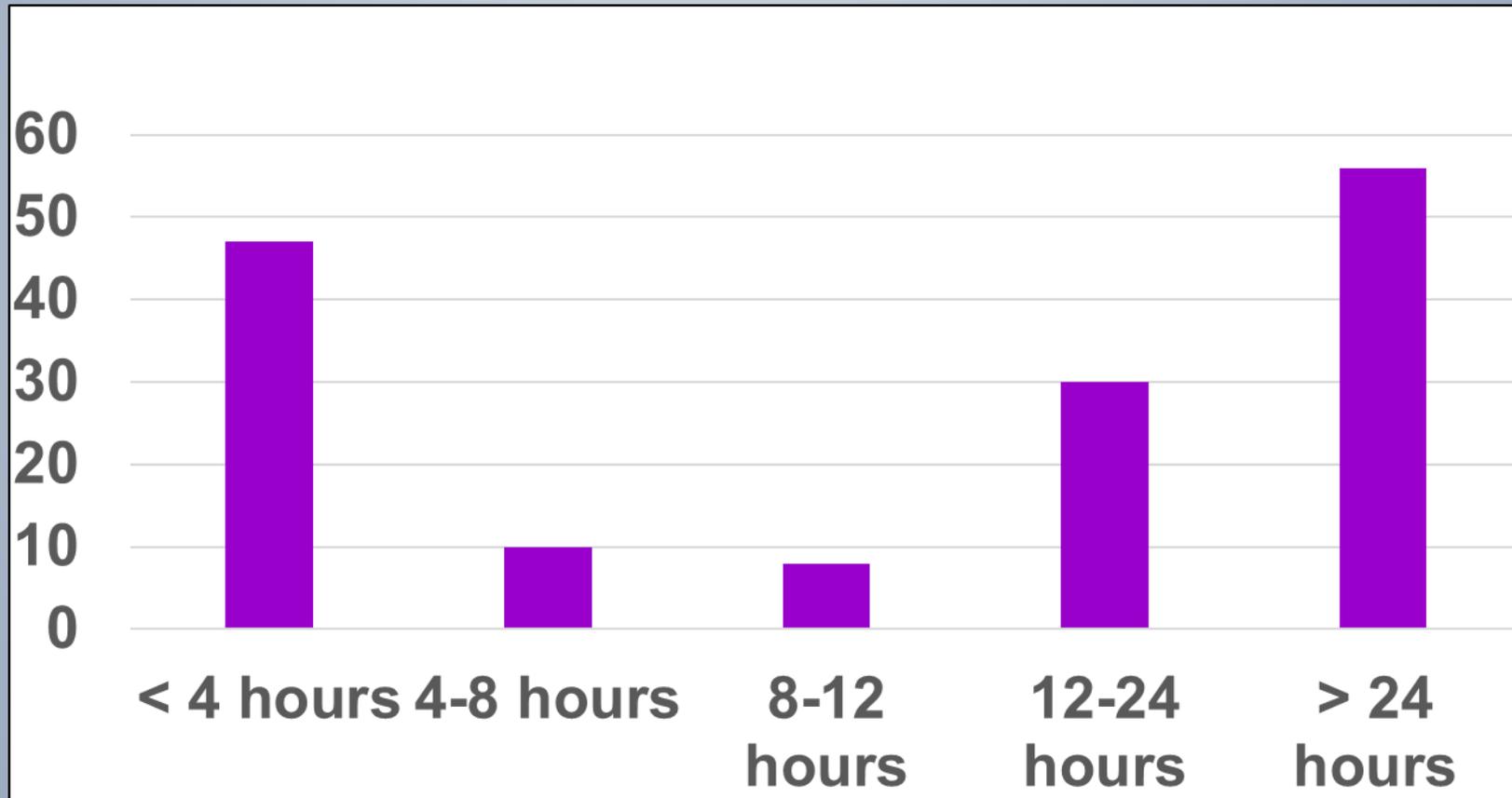




## Were you told that you could breastfeed as soon as you were awake and alert after the operation?

- › Yes 99 (45%). No 120 (55%)
- › What is the evidence of risk of anaesthetics?
- › Why do women not get this information?
- › What are we doing about it?

If you were told that you couldn't breastfeed immediately, how long were you told to pump and dump for?





## Were you helped to pump

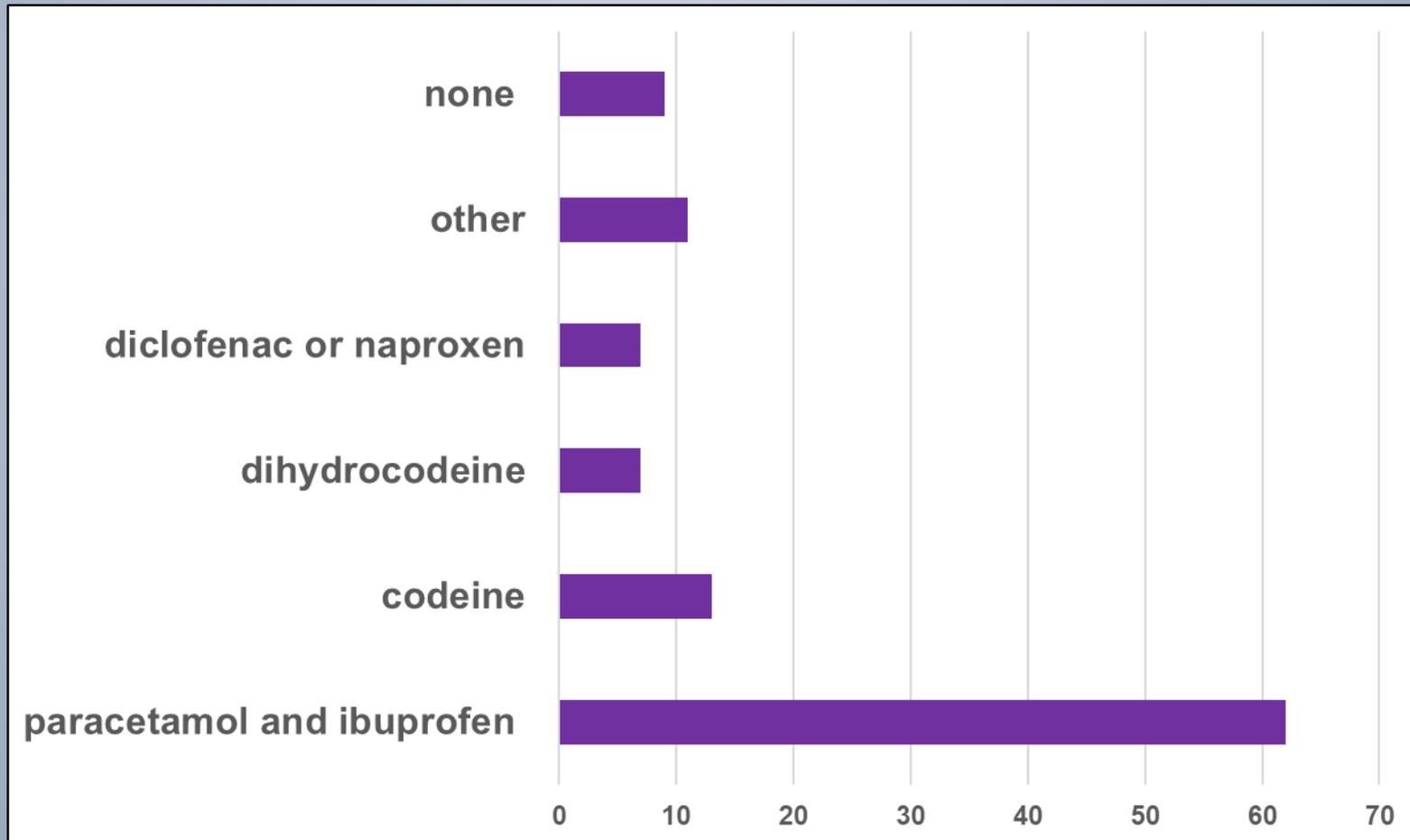
› Yes 13.24% (27) No 86.76% (177)

### Comments:

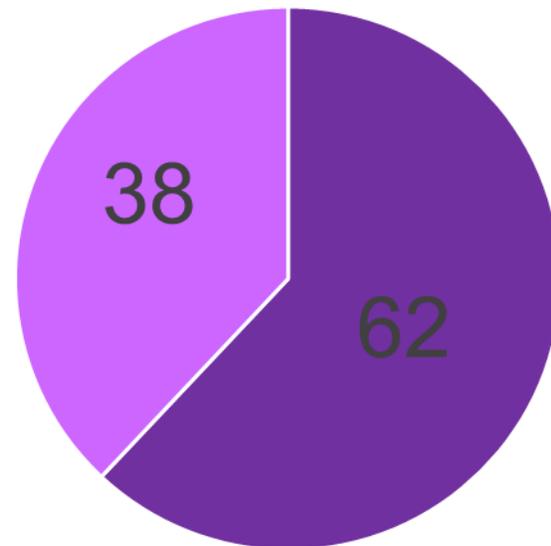
- › Hospital not supporting extra/overnight visits with baby... the hospital understandably wanting a responsible adult to accompany baby, but then insisting in normal visiting hours.
- › At that point she wouldn't take a bottle
- › No one could get me a pump

# Analgesics

> 70% were sent home with painkillers



Do you feel your wish to breastfeed was supported?



■ yes ■ no



# Pharmacology

- › Most anaesthetic agents have short half lives which is why we wake up quickly
- › We use the same drugs in paediatric surgery and in obstetric surgery
- › Accumulate in fat cells and slowly released
- › Bed sharing risk? Need a responsible adult
- › Current guidance/variability between hospitals

## Summary

- › Very few procedures require interruption or cessation of breastfeeding BUT mums are frequently told they cant breastfeed
- › Why?
- › Manufacturer recommendations
- › Limitations of product licence
- › Litigious society
- › We should be using evidence based sources
- › Do we underestimate the risk to the mother and child of recommending breastfeeding stopped?





## What can breastfeeding advocates do?

- › Listen to the concerns of breastfeeding mothers
- › Advocate for them?
- › Provide information / signpost
- › Empower
- › Provide a pump/ support to pump
- › Pro-actively raise the topic of drugs in breastmilk with all mothers



# Breastfeeding and Anaesthetics – the role of the health visitor in supporting mothers

Dr Wendy Jones. Breastfeeding and Medication Pharmacist

## CONTACT INFORMATION

[Wendy@breastfeeding-and-medication.co.uk](mailto:Wendy@breastfeeding-and-medication.co.uk)  
[www.facebook.com/breastfeedingandmedication/](https://www.facebook.com/breastfeedingandmedication/)  
@BFWendy

## INTRODUCTION

Many women report that they have been told that they are not allowed to breastfeed after a general anaesthetic for 24-48 hours. This is not supported by published guidelines. Women feel vulnerable and find it hard to challenge healthcare professionals particularly if they are less well educated or come from a group where breastfeeding is not the norm.

## AIM

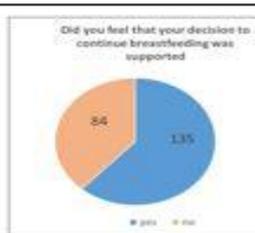
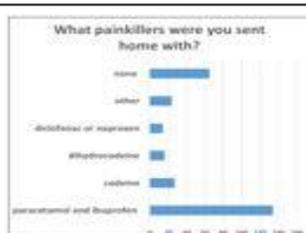
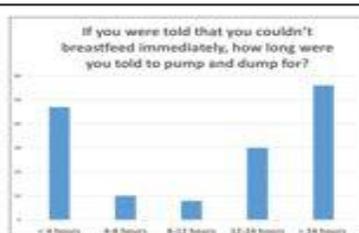
To determine how health visitors can advocate for mothers due to undergo non obstetric surgery and look at the evidence based guidelines behind the safety of anaesthetic agents and painkillers given during this period so that together health visitors and mothers can challenge non evidence-based recommendations. Particularly important to address health inequalities

## MATERIAL & METHODS

A survey monkey questionnaire distributed via social media was used to ascertain experiences of breastfeeding mothers who had undergone surgery involving general anaesthetic in the previous 12 months with respect to recommendations to pump and dump, analgesic use and breastfeeding support.

This was supported by an open access question addressed to health visitors and breastfeeding advocates as to their experience of supporting mothers needing surgery.

## RESULTS



- 223 mothers responded – all had surgery involving a general anaesthetic in the past 12 months
- Only 99 were told that they could breastfeed as soon as they were awake and alert after surgery
- Only 27 were helped to pump if they needed to in hospital

- 38% felt that their wish to continue to breastfeed was not supported
- Codeine was prescribed for 27 women against MHRA guidelines
- These were the women who had sought information via social media – is there a health inequality?

## Comments from mothers

- *I was told: "It's probably time to stop - my wife went away to a spa for 3 nights and we stopped ours needing it at 6 months"*
- *Basically the information is not getting down to the people that are preparing patients*
- *As an anaesthetist I have heard lots of stories of mums being told to pump and dump. It isn't included in our general training, but we should know it. It's actually just quite uncommon; in 3 years I haven't had one breastfeeding patient.*

- *Had GA two weeks ago. Baby is ten months. Hospital was appalling. Wouldn't let baby visit me as he's under a year. My husband was sitting in reception with the baby and they wouldn't let him come up or me go down. Wouldn't store my breast milk. Told me to pump and dump so they could give me the GA and painkillers and when they asked me I said I had milk stored so they told me not to make a cause of it. Would give me the painkillers I had after my section as they said they weren't safe – I used the ones I still had at home !*

## SUMMARY / CONCLUSION

- Health visitors are in an ideal place to advocate for mothers needing surgery and to support them to continue to feed as they wish, to express if they prefer or to stop.
- We need consistent evidence-based guidelines which support mothers to continue to breastfeed after non obstetric surgery and receive adequate pain relief.
- There appears to be a variation in perception of safety of anaesthetic agents used in obstetric surgery and the same ones used later for general surgery – or a lack of support for breastfeeding?
- Should health visitors mention the safety of drugs in breastmilk pro-actively so mothers know they are a source of information if needed and always a support?

## ACKNOWLEDGEMENTS

Thanks to the 223 mothers who took the time to complete the survey and the comments from peer supporters and professionals were highly valuable

## REFERENCES

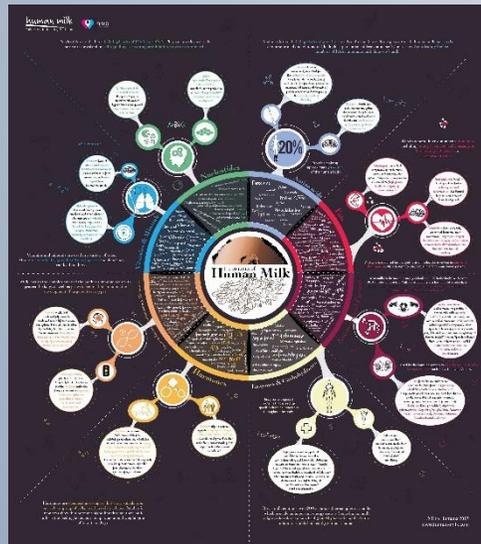
1. Montgomery A, Hale TW, The Academy of Breastfeeding Medicine ABM Clinical Protocol #15: Analgesia And Anesthesia For The Breastfeeding Mother, Breastfeeding Medicine Revised 2012 ; 7(6):547-553
2. Schneider P, Reinhold P. Anesthesia in breast feeding. Which restrictions are justified? *Anesthesiol Intensivmed Notfallmed Schmerzther* 2000 Jun;35(6):356-74.





# Donor milk Banks

- › We aim to create a future where more babies can have access to screened donor milk when their own mothers cannot produce milk, or need time and support to get there





Let's change the conversation – yes I'm saying it again!

- › Provide mothers (and their partners) with evidence based information not the manufacturer's recommendation
- › Let's use shared decision making
- › Let's promote and support breastfeeding
- › Let's find an alternative so that they can continue to breastfeed as normal



Breastfeeding isn't just a lifestyle choice

It matters to the health of the mum

It matters to the health of the baby

It matters to our health economy

#### DADS ARE THE BEST BREASTFEEDING SUPPORTERS

Support your partner with breastfeeding to ensure your little one has the best start in the game called life

Breastmilk provides all the goodness that your baby needs for the first 6 months of life. It is also valuable to your baby if he/she is on solids. Formula milk cannot provide all the special protective factors that nature adds to breastmilk to make it special for **your** baby.

Breastmilk is always available at the right temperature, in the right amount – and the packaging is perfect!

#### BE A SUPPORTER

Support the BEST team in the world

YOUR TEAM



#### DID YOU KNOW?

If your partner breastfeeds your new baby will be at lower risk of:

- Diarrhoea and other tummy infections
- Chest Infections
- Ear infections
- Urine infections
- Asthma
- Eczema
- Childhood diabetes
- Obesity

#### BUT did you also know ?

If your partner breastfeeds **she** will have a reduced risk of ;

- Breast cancer
- Ovarian cancer
- Weak Bones in later life

**AND** she will get her figure back faster

#### So what can YOU do to help?

Some Dads feel left out if they can't feed their baby. But breastmilk is protecting your partner and your baby. Isn't that the most important thing?

You can play with your baby, sing (they don't care how much in or out of tune you are or what you sing!), bath your baby or just enjoy being together as a family

You can earn her thanks by bringing her a cup of tea and a snack when she's breastfeeding of course!

#### SUPPORT GROUP TELEPHONE NUMBERS

**REMIND** you partner to call for help from one of the numbers she was given after the baby was born if she:

- Finds breastfeeding painful
- Is concerned that everything isn't going as she expected
- Needs to talk to other mums

Healthcare professionals and all involved in the care of breastfeeding mothers need training on breastfeeding, the safety of drugs in breastmilk and to develop a sensitivity to the needs of mothers around infant feeding

**Contact details**

**[wendy@breastfeeding-and-medication.co.uk](mailto:wendy@breastfeeding-and-medication.co.uk)**

**[www.facebook.com/breastfeedingandmedication](https://www.facebook.com/breastfeedingandmedication)**

