Infant Feeding - Antenatal Hand Expressing of Colostrum

Guideline information

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Summary of document:
This guideline aims to ensure that all staff of HDUHB promote, support and protect breastfeeding.

Scope:
This guidelines aim to provide information for all staff (all midwifery staff, neonatal unit ward staff, paediatricians, obstetricians, diabetic care teams) who are providing direct clinical care to pregnant women and birthing people who are diabetic or any other woman or birthing person who has an increased risk for whom early delivery is planned or when potential difficulties with establishing early breastfeeding are anticipated.

To be read in conjunction with:
1075 - Infant Feeding – Breastfeeding Guideline (opens in a new tab)
794 - Infant Feeding Policy - To Support Baby Friendly Initiative Health Visiting Standards (opens in a new tab)
988 - Neonatal Hypoglycaemia Guideline (opens in a new tab)

Patient information:
Include links to Patient Information Library

Owning group:
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1.0 – New Guideline

Keywords
Breastfeeding, Hand Expressing, Colostrum

Glossary of terms
GD - Gestational Diabetes
Colostrum - The earliest breastmilk produced and it is made up of immune factors, protein, sugar, and fats.
HDUHB - Hywel Dda University Health Board

Contents

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Aim

What is the aim of the document and if/when implemented what will it achieve?

The aim of this document is to:

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Objectives

Bullet point the main headings to show how the aim will be achieved.

The aim of this document will be achieved by the following objectives:

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Introduction and Purpose of the Written Control Document

Hywel Dda University Health Board (HDUHB) breastfeeding policy recognises that breastfeeding is the healthiest way for a woman to feed her baby and acknowledges the important health benefits known to exist for the mother and her child and also in terms of the wider public health agenda.

Babies of mothers with Type1 and Type 2 diabetes or gestational diabetes (GD) are at increased risk of hypoglycaemia in the early post-natal period. This often results in babies whose mothers intend to breastfeed, receiving formula milk. This intervention may have a negative impact on the success of breastfeeding and thus adversely affect the future health of both mother and child.

Research suggests that it is advisable to avoid early exposure to bovine products in the child of the diabetic mother as this has been associated with a subsequent increased risk of developing diabetes.

To address the issues of both needing to provide supplementation and protecting the baby's future wellbeing it is becoming established practice in many maternity units to discuss "personal milk banking" with pregnant diabetic or GD women. However this mode of care is increasingly being offered to any mother for whom early delivery is planned or whose baby could be at risk of requiring additional supplementation or where potential difficulties are identified with establishing breastfeeding e.g. structural anomalies such as cleft lip/palate. In addition pregnant women themselves are coming forward and seeking information about this practice as part of their personal preparation for breastfeeding.

Personal milk banking is antenatal (from about 36 weeks of pregnancy) hand expressing and storage (freezing) of colostrum. Mother's own milk can thus be given to her baby in the early postnatal period via an alternative feeding method as a first line measure in the prevention of hypoglycaemia or when baby cannot be fed directly at the breast.

Nipple and breast stimulation (and consequent release of oxytocin) has been suggested as a means of performing contraction stress tests and inducing labour. The evidence for induction of labour remains

unclear. In view of this it would be prudent to avoid advocating antenatal hand expressing when the mother has a low lying placenta in order to reduce any potential risk of ante-partum haemorrhage. Antenatal hand expressing is also discouraged if there is a history of uterine pain, ante-partum haemorrhage, multiple pregnancy *with risk factors apparent,* cervical suture in situ or fetal compromise where uterine tightening might cause complications. Antenatal hand expressing is also discouraged in circumstances when a pregnant woman has been advised to refrain from sexual intercourse.

Hand expressing is a learnt skill and practice in pregnancy may help mothers to master it effectively. This may result in greater maternal confidence and colostrum being obtained more easily in the early postnatal period.

Guidelines for Practice

Mandatory 16 week conversation: As part of routine care all women should have a discussion regarding the importance of colostrum and offered the “Colostrum: Nature’s perfect first baby food leaflet” (Appendix 1).

Mandatory 34 week conversation: following assessment and discussion with the midwife, women should be positively offered information on antenatal hand expressing by sharing & discussing the information leaflet “Preparing for feeding your baby-before the birth”? (Appendix 2).

This particularly applies to:

- Pregnant women with diabetes of any aetiology
- Women for whom early delivery is planned: particularly early or planned caesarean section as this is associated with early lactation/breastfeeding difficulties (Zanardo et al 2010)
- Women for whom potential difficulties with establishing early breastfeeding can be predicted e.g. cleft lip/palate identified on scan
- Enquiries from pregnant women interested in practically preparing for feeding their baby

Contraindications to antenatal hand expressing: This does not apply if a mother has a low lying placenta, gives a history of uterine pain, ante-partum haemorrhage, multiple pregnancy, cervical suture in situ or fetal compromise where uterine tightening might cause complications or when a mother has been advised to refrain from sexual intercourse.

This discussion could be instigated either by the community midwife or the antenatal clinic/diabetic clinic midwife. The discussion should be recorded in the case notes.

If the woman wishes to undertake antenatal hand expressing baby then at the 34 week contact a plan of care should be drawn up including teaching the technique of hand expressing using a breast model and providing information regarding storage of milk.

From about 36 weeks mother should be encouraged to hand express colostrum about 2-3 times a day for up to about 5-10 minutes per session and store her milk either in sterile syringes or small bottles.

If/when colostrum flows more freely a gallipot can be provided for the woman to express into - inform of need to sterilize this between expressing episodes.

Colostrum obtained at each expressing should be put into back of the fridge. All of the colostrum collected in a 24 hour period can be combined into one container labelled and stored in the freezer.

Mother should record her name, date of birth and the date and time of expressing on the storage container (a permanent marker pen is useful for this purpose).

The colostrum can be stored in the home freezer and transported to hospital in a cool bag with ice blocks. In hospital the milk should be stored in the fridge or freezer on the maternity ward or Neonatal Unit.

Care should be taken to ensure that the mother's desire to use her own milk as supplementation for her baby is highlighted in the case notes and communicated to all staff caring for the mother and the baby.

The midwife caring for the mother or the neonatal unit staff should ensure that the milk is taken out of the freezer and defrosted in good time before the birth.

After the birth, mother and baby should receive usual good practice of skin to skin contact for at least an hour and assisted with an early first breastfeed. Baby should be kept in skin contact with mother to promote thermo-regulation and physiological stability.

Stored colostrum can be given to the baby if necessary via an alternative feeding method (cup, syringe, feeding tube).

Support for Transgender and Non-Binary Parents

Trans men, trans women, and non-binary individuals may choose to breastfeed, or chest feed their babies. It is not necessary to have given birth to breastfeed or chest feed.

Some transgender and non-binary parents have a full milk supply. If an individual has had chest (top) surgery they may be able to produce some milk. Many factors will affect the amount of milk an individual can produce.

There should be an early referral to the Lactation Consultant in HDUHB for individualised care planning.

Non-Gestational Lactation – Breast Feeding withing giving Birth

It is not necessary to give birth in order for a parent to successfully breast feed their child. Indeed non-gestational parents can start preparing for breastfeeding as soon as they decide to grow their family.

In order to support parents who wish to induce non gestational lactation, there should be an early referral to the Lactation Consultant in HDUHB for individualised care planning.

Flow Diagram: Antenatal Hand Expressing of Colostrum: for Pregnant Women with Diabetes of any Aetiology or any Woman if Potential Difficulties with Establishing Early Breast Feeding can be Anticipated

16 weeks – Mandatory Antenatal Conversation
Share and Discuss HDUHB information leaflet 'Colostrum Nature's Perfect First Baby Food' (see appendix 1)

34 weeks – Mandatory Antenatal Conversation
Consider if the woman would benefit from or would be receptive to information on antenatal hand expressing. Ensure woman has not been advisd to refrain from sexual intercourse and exsure absence of a low lying placenta, ante-partum haemorrhage, uterine paine, cervical suture in situ, and multiple pregnancy with risk factors apparent or fetal compromise where uterine tightening might cause complications.

Share and Discuss HDUHB information leaflet 'Preparing for feeding your baby – before the birth?' (see Appendix 2)

- Teach hand expressing: Use breast model to demonstrate
- Support and encourage woman to practice the technique on the breast model
- Discuss realistic expectations regarding very small amounts of colostrum to be expected particularly in the early days: ("Glisten -> drop -> drip")
- Discuss how to collect drops of colostrum directly from the nipple with a colostrum collector
- Consider provision of small supply of sterile colostrum collectors and discuss how the woman can obtain further supplies if necessary
- Discuss storage of colostrum: Collect syringe from a 24 hour period, store in back of fridge. At 24 hours label container and store in freezer.
- Discuss arrangements to bring stored colostrum into hospital in cool bag with ice block (woman to provide these)

Admission for birth of baby
If necessary, alert maternity ward or NNU that mother will be transferring store of colostrum

On Ward
Transfer store of colostrum from cool bag to fridge to freezer on Maternity Ward/NNU – depending when birth is anticipated. When delivery time is known arrange for removal of milk from freezer for defrosting ready to give to baby.

After the birth
Routine optimal practice: skin contact for at least 1 hour and support with early first breastfeed. Use of stored EBM as supplementation if necessary, given via alternative feeding methods (cup, syringe)

References

Forster d et al (2017) *Advising women with with diabetes in pregnancy to express breastmilk in late pregnancy (Diabetes and Antenatal Milk Expressing [DAME]): a multicentre, unblinded, randomised controlled trial* The Lancet

Zanardo et al (2010). *Elective Cesarean Delivery: Does It Have a Negative Effect on Breastfeeding?* *Birth*

Regan J (2013) *The Influence of Mode of Delivery on Breastfeeding Initiation in Women with a Prior Cesarean Delivery: A Population-Based Study* Breastfeeding medicine

Appendix 1 – 16-week Leaflet: Provided bilingually in Accordance with HDUHB Policy

Why is Colostrum important?

A baby is very vulnerable in the first few hours and days. Colostrum is rich in protein and also contains antibodies plus many other important protective factors which protect your baby during this time.

The first few days outside of mum's womb

Babies need a gradual and gentle introduction to life outside of the womb. The volume of Colostrum increases gradually each day which allows your baby's kidneys to adapt to the change from being fed by the umbilical cord.

How much does my baby need?

A newborn baby's tummy is very small, the size of a small marble in fact. Your body knows that your baby only needs a small amount of food. Just a teaspoon or two (5-10ml) of Colostrum provides all the goodness and protection your baby needs.

Changes on the 3rd day

Around the 3rd day after birth, milk flow increases and your breasts may feel fuller but this soon settles down. From then on a mother's milk is continually changing to meet her growing baby's needs; this is completely different to formula milk which never changes and does not provide any protection for your baby.

Appendix 2 – 34-week Leaflet: Provided bilingually in Accordance to HDUHB Policy

Preparing for feeding your baby - Before the birth?

Colostrum is a mother's important first milk for her baby. It has important immunity and protective factors and is the perfect food for a new baby. Some babies have a tricky start to feeding; having a small store of mum's colostrum ready can help baby in the first 24 hours after the birth

You can begin **antenatal expressing** colostrum at around 36 weeks. This can be particularly useful for women with diabetes, multiple birth or if early birth/ Caesarian section is expected or planned. **Your midwife will show you how to hand express using a breast model**

You can hand express about 2-3 times a day for about 5-10minutes

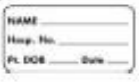
Initially don't expect to see more than a glisten on the nipple, this may be followed by a little drop before you get a drip! Some women don't see much or any colostrum & that's fine too – just getting your breasts ready can be helpful for helping your milk to "come in" around day 3 after the birth

Helping your milk to flow
Gentle breast massage,
Apply warmth or express after shower or bath

How to hand express
Wash your hands
Place your thumb & finger at the base of your nipple and then move them back about 2-3cm. Gently compress and release - build up a rhythm but avoid sliding your fingers on your skin in case it makes you sore. Move your fingers around your breast to express all areas and then move to the other breast

Collecting your milk
Your midwife will help you get started with some special little syringes.
You collect the drops in the syringe each time you express in 24hours – keep the syringe in the fridge in between and then store in the freezer.

Going in to have your baby ☺
Bring your frozen colostrum in a cool bag with a cool block inside. Ask the midwife to store this in the ward milk fridge or freezer depending when your baby is expected to be born



Storing & Labelling your milk
Name, your date of birth and the date the milk was expressed. When taken out of the freezer, store in the fridge and use within about 24hours

Very occasionally expressing may stimulate mild contractions.
If these occur each time you express, stop expressing and discuss with your midwife for further guidance

AN HE 2020 34w conversation SB IFC

Appendix 3 – What the hospital will provide

The hospital will provide the mother with:

1. Sterile oral (purple) syringes to collect colostrum 1-2 mls, syringe caps and a sterile plastic collection cup

2. Mother's identification labels for syringes (mother to write date and time on each label and place on the syringe)

3. "common questions asked by mothers" information

4. Booklet – Bump Baby & Beyond which illustrates hand expressing

Instruct the mother to bring the frozen colostrum with her when she is admitted and to give it to the staff as soon as possible. Advisable to store it in ice packs in a cool box between home and hospital to make sure it remains frozen. Store dated and labelled colostrum in the Dinefwr Ward Freezer – labelled "frozen colostrum/breastmilk". Use frozen colostrum in the date sequence it has been expressed.

ON ADMISSION

- All expressed colostrum must be stored in the freezer in the locked store room ensuring it is correctly labelled.

- Any unused colostrum will be returned to the mother on discharge or discarded appropriately.

Appendix 4 – Common Questions asked by Mothers

Is hand expressing difficult?
Hand expressing is easy to learn and will get easier with practice
Success comes with practice. Follow the instructions on hand expressing in the booklet "Off to the best start".

Can I use a pump instead?
Hand expressing is more effective than a pump during pregnancy and for the first 24 hours after delivery. As you will only express small amounts, using a pump may cause you to lose some of that precious colostrum.

When can I start expressing?
Colostrum can be saved from 37 weeks of pregnancy. Discuss with the midwife if you are at an earlier gestation and need to express.

How often do I need to express?
You can express up to three times in the same day. You won't trigger labour provided you express for a few minutes three times per day, unless you are already at risk of early labour. Start with 3-5 minutes on each breast for a total of 5-10 minutes.

How much colostrum will I express?
This varies from mother to mother. It may not seem a lot but a baby's first feed is not more than a teaspoon in the first 24 hours so every drop expressed is previous (liquid gold). Save all expressed colostrums, no matter how small.

If I cannot express any milk does this mean I have no milk?
Not all mothers leak colostrum. Do not worry if no colostrum is expressed (it may be the technique) this does not mean that you will not produce milk or breastfeed successfully.

How do I collect and freeze the expressed milk?
You can express directly into a sterile container or use a syringe to draw up the colostrum. Place the expressed colostrum in the coldest part of the fridge. Once you have expressed for the last time that day, label and date the syringe before putting it in the freezer. You can store all the syringes together in a box or a sealed zipped bag.

How long can colostrum be safely refrigerated?
It can be safely refrigerated up to 48 hours but ideally freeze as soon as possible after the 3rd expression or within (24 hours).

When do I take the colostrum with me to the hospital?
When you come into hospital, please bring any labelled frozen colostrum/milk with you between freezer blocks in a cool bag. On admission ask the staff to store your frozen colostrum immediately in the freezer on Dinefwr Ward so it does not defrost.

For more information on breastfeeding and the diabetic mother La Leche League have produced an excellent leaflet:
"The Diabetic Mother and Breastfeeding" current cost £2.50.