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Increasing Milk Supply - use of Galactagogues

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Galactagogues are substances that aid the initiation and maintenance of milk supply at a level which meets the needs of the baby. The production of milk is controlled by the hormone prolactin. Nipple stimulation controls the release of prolactin whilst oxytocin controls the release of the milk, experienced as the letdown.

Poor milk supply can result from:

- Less than perfect positioning and attachment of the baby at the breast resulting in incomplete breast drainage
- Infrequent, restricted, limited feeds

Reduction in milk supply is frequently noted after premature delivery with milk supply maintained only by expression over a period of weeks (DaSilva 2004 and Wan 2008). Smoking is associated with decreased milk production and smokers are more likely to wean earlier because of low milk supply or to notice inhibition of letdown (Vio 1991 and Hopkinson 1992).

Many cultures have their own remedies to increase milk supply (Riordan and Auerbach 1998). In the past Guinness and Vitamin B supplements have been advocated widely. There is limited research evidence to support its effectiveness. However if a mother believes it will help her, the positive effect may be apparent - whether due to placebo or genuine effect is unknown.

Medicinal products which have been shown to increase milk supply produce their effect by dopamine antagonism, generally as a side effect, whilst having other therapeutic effects. Use of these medicines as galactagogues is outside of the licence application and prescribers are required to take ultimate responsibility for their use.

Many women perceive that their milk production is inadequate and it is the commonest reported reason given for cessation of breastfeeding earlier than the mother had intended. Medication should not be advocated as a solution to unfounded concerns or where additional support and

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encouragement as well as consistency of information are the prime need. Expert assessment of the latch and the effectiveness of feeding is essential.

Metoclopramide (Maxolon ®)

This drug is used as an anti-nauseant. Clinical studies have shown that it increases prolactin levels and consequentially milk supply at a dose of 10milligrammes three times daily. However it can produce extra-pyramidal side effects including tremor and slow, shuffling movements as well as precipitating depression (Ingram 2011, BNF)

Domperidone (Motilium ®)

This drug is used to speed gastric emptying and is used for dyspepsia after meals, reflux oesophagitis and vomiting (BNF). It is available as an over the counter medicine to treat bloating after meals. The normal dose is 10milligrammes three times a day. Reports of higher doses have been published (reported in Gabay 2002) but care should be taken if mother or child have a history of cardiac problems or are on interacting medication. Reported side effects are unusual but can include headache, diarrhoea, mood swings and feeling dizzy. The drug has been evaluated as a randomised double blind; placebo controlled trial although this only involved 20 women (reported in Gabay 2002). Warnings issued by the FDA in June 2004 reported concerns over IV use, which are not applicable in these circumstances (Hale 2014). Further concerns on use and limitations on dose and indication were published by MHRA and EMC in May 2014.

*Important -please see separate sheet on Domperidone use in breastfeeding
<http://www.breastfeedingnetwork.org.uk/wp-content/dibm/BfN%20statement%20on%20domperidone%20as%20a%20galactagogue.pdf>

Sulpiride and Chlorpromazine have been noted to have galactagogue properties but side effects limit their effectiveness. (Hale 2014, Jones 2013, BNF)

If no increase in milk supply is noted after seven days of taking medication, consideration should be given to removing the medication rather than continuing to expose mother and child.

Fenugreek

This is a herbal spice, which is a member of the pea family whose seeds are used amongst other things as the artificial flavour in maple syrup. Anecdotal reports of its effectiveness go back to 1945 (reported in Gabay 2002) but no formal studies have been located. Its mechanism of action has been theorised as stimulation of sweat production (the breast is a specialised sweat gland). The recommended dose is 2-3 capsules three times a day (Newman 2009). Since herbal remedies are not standardised the exact amount of fenugreek may vary. Reported adverse events are rare and include maple syrup like odour of the sweat and urine, diarrhoea and aggravation of the symptoms of asthma (Lawrence 1998) although it has also been suggested as a remedy for asthma. Fenugreek can also interact with insulin and warfarin and anyone taking medication is advised to seek advice from a medical practitioner or herbalist. It also stimulates the uterus and should not be used in pregnancy. Hypoglycaemic effects (low blood sugar levels) have also been reported Vijayakumar (2005). Milk production is said to increase within 24-72 hours (Humphrey 2003).

It is important to note that natural products can vary in strength. The fact that they are natural products does not imply their use is without risk. **Other natural remedies** said to increase milk supply include anise, basil, blessed thistle, caraway, chasteberry and fennel but evidence is anecdotal rather than scientific. (Kellymom 2011, Humphrey 2003, Lawrence 1998)

In a paper by Shawahna 2018 it is suggested that all mothers recommended to take fenugreek should have a risk:benefit discussion so that they are fully informed.

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Risks of fenugreek (Shawahna 2018)

Not all practitioners said that they would discuss the full list;

Fenugreek has anticoagulant effects

- 1 Breastfeeding women who have a history of any clotting related disorder need to be warned not to take fenugreek
- 2 Breastfeeding women who have a history of vaginal bleeding disorder need to be warned not to take fenugreek
- 3 Breastfeeding women who are at risk of any bleeding disorder need to be warned not to take fenugreek
- 4 Breastfeeding women need to be warned that fenugreek might be associated with menstrual breakthrough bleeding
- 5 Breastfeeding women who are on anticoagulants need to be warned not to take fenugreek
- 6 Breastfeeding women who are on non-steroidal anti-inflammatory drugs (NSAIDs) need to be warned not to take fenugreek

Fenugreek might be associated with abortion

- 7 Women planning to become pregnant need to be warned that fenugreek is a potential utero-stimulant and might cause spontaneous abortion
- 8 Women with a history of previous miscarriage need to be warned not to take fenugreek
- 9 Women planning to become pregnant need to be warned that fenugreek might impair fetal development

Risks associated with using fenugreek on other co-morbidities

- 10 Breastfeeding women need to be warned that fenugreek might cause nausea and vomiting
- 11 Breastfeeding women need to be warned that fenugreek might cause diarrhea in the mother and her breastfed infant
- 12 Breastfeeding women with a history of asthma need to be warned that fenugreek might worsen the symptoms of their asthma
- 13 Breastfeeding women need to be warned that fenugreek might cause dehydration

Fenugreek could be associated with hypotension

- 14 Breastfeeding women with a history of or at risk of hypotension need to be warned not to take fenugreek
- 15 Breastfeeding women with a history of or at risk of dizziness need to be warned not to take fenugreek
- 16 Breastfeeding women who are on anti-hypertensive medications need to be warned not to take fenugreek

Fenugreek could be associated with hypoglycemia

- 17 Breastfeeding women with a history of or at risk of hypoglycemia need to be warned not to take fenugreek
- 18 Diabetic breastfeeding women whose disease is controlled by medications or insulin need to be warned not to take fenugreek

Other adverse effects

- 19 Breastfeeding women need to be warned that fenugreek might cause fever

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20 Breastfeeding women need to be warned that fenugreek might cause excessive sweating

21 Breastfeeding women taking diuretics, laxatives, mineralocorticoids, and/or other hypokalemic agents need to be warned that fenugreek may worsen hypokalemia

Nursing supplementer (SNS) devices may prove effective in aiding additional nipple stimulation through suckling. Breast compression may also stimulate milk flow and encourage the baby to suckle.

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