Appendix 12A - Guidance for the Management and Treatment of Thrush (Candidiasis) in Breastfeeding

Background

Between 3-26% of women who breastfeed are estimated to suffer from lactation mastitis. Among the various causes, superficial, and particularly deeper, ductal *Candida* infection is widely thought to be responsible for the severe radiating nipple pain that some women experience during breast feeding. There are, however, two areas of contention as far as this entity is concerned:

- Difficulties in making the diagnosis; breast milk contains lactoferrin and other fungistatic substances, therefore culturing the expressed breast milk is unlikely to show the presence of fungi. This is reflected in the sometimes conflicting results in studies of this condition.
- The drugs used are largely "off-label" if used in either the lactating mother or her baby.

There is little doubt that this is, however, a very poorly studied subject; health professionals have subjected the issue to very little study while lay groups, who have very extensive experience of this problem, have found it almost impossible to get the funding needed to study the subject rigorously (drug companies can see no profit in funding the study of this problem because patents have expired).

It must be remembered that most pain, especially when feeding is being established, is almost always due to poor positioning – an easily solved problem as long as the mother can access experienced support and advice from breastfeeding support groups and staff (see below). Unresolved breast engorgement, eczema, Raynaud’s phenomenon and tongue-tie are other occasional causes of pain. Features that suggest *Candida* as a cause for their symptoms are listed below.

Symptoms / signs suggestive of thrush

**In mother:**
- Increased nipple sensitivity or itchy nipples
- Maternal pain after feeds – not resolved by optimising positioning and attachment
- Bilateral breast pain
- Permanent loss of colour in the nipple / areola (or may appear red and shiny)
- Absence of pyrexia or red area on the breast
- History of recent antibiotic use
- Current or past nipple trauma

**In baby:**
- Signs of thrush infection in mouth / nappy area

Action if seen by GP

- Refer to Midwife, Public Health Nurse / Health Visitor or Breastfeeding Specialist for assessment of breastfeeding to exclude other causes of breast / nipple pain, especially poor latch and sub-optimal positioning and attachment and to provide on-going support with breastfeeding.
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- Treat mother and baby even if only one is symptomatic

Action if seen by Midwife / Public Health Nurse

- Carry out a thorough breastfeeding assessment, including observation of a complete feed, to exclude other causes, especially poor latch and sub-optimal positioning and attachment
- If treatment is required, referral should be made to the patient’s GP, ideally following discussion to outline the assessment, diagnosis and plan of care, and treatment requested as per treatment regime.

Treatment regime

White tongue in baby & asymptomatic (or non-breast feeding) mother:
- Some babies develop white tongues after delivery. If the mother is breastfeeding and not exhibiting pain, or if the baby is bottle-fed, nystatin oral suspension should be prescribed.

White tongue in baby & symptomatic breast feeding mother:
*First line treatment:*
- Combination of miconazole cream for the mother and oral gel for the baby as below.

*Second line treatment:*
- If symptoms do not resolve, oral fluconazole may be necessary in the mother along with continued topical treatment for both mother and baby.

Doses:

* Treatment of mother*
  - **Miconazole 2% cream:** apply a small amount of cream to nipples after every feed. Washing the nipples prior to the next feed is unnecessary and may cause further damage, however any cream that can be seen should be wiped off.
  - If the nipples are very red and inflamed a combination of **miconazole 2% with hydrocortisone 1% cream** (e.g. Daktacort®) applied as described above may be helpful
  - **Fluconazole:** Give an initial 150–300mg loading dose, and then 50–100 mg twice a day by mouth for at least ten days
  - Analgesia for breast pain as necessary

* Treatment of baby*
  - **Nystatin oral suspension:** 100 000 units (1 ml) 4 times daily after feeds
  - **Miconazole oromucosal gel** 1.25 ml gently smeared around the baby’s mouth four times a day after feeds.

Note: nystatin is *fungistatic* whereas miconazole is *fungicidal* and has been shown to be clinically better in eradicating oral *Candida* in infants (Hoppe, 1997)

Licensing Information and safety considerations

**Fluconazole:**
- Fluconazole is not licensed for use during lactation. It is however licensed for direct administration to and used in infants (including premature infants weighing <1000g). The amount of fluconazole excreted into breast milk is 0.6mg/kg/day, compared to the dose for use in babies and children of 6mg/kg/day. Therefore mothers should be reassured that the small amount of any fluconazole that they take systemically is unlikely to harm the baby
Nystatin:
• Nystatin oral suspension is not licensed for neonates (i.e. infants up to the age of 4 weeks) yet this is one group highly likely to receive it. The Department of Health (Non Medical Prescribing Policy 27 July 2007) has advised that Community Practitioner Nurse Prescribers may prescribe nystatin oral suspension for a neonate providing there is a clear diagnosis of oral thrush and it is within their own competency.

Miconazole oral gel:
• Miconazole oral gel is licensed for use in babies from 4 months of age. The licensed dose for use in infants from 4-24 months is 1.25ml four times daily after feeds. For children aged 2 years and older, 2.5ml should be applied four times daily.
• After more than 30 years of unchanged use the manufacturer, Janssen-Cilag, with the support of the MHRA, chose to change its licensed use in May 2008 from infants over 1 month of age to infants over 4 months. This change appears to have been brought about following a case report of a baby who choked on the gel that had been applied to the mother’s nipples (De Vries et al, 2004). Thus risks of choking seem to be related to the method of administration and parents / carers should be advised to apply small amounts of the gel at a time and to do so with a clean finger. A spoon should not be used to administer the gel to babies.

Multi-disciplinary working between GP, Midwife, Public Health Nurse and Breastfeeding Support Services
• Midwives, Public Health Nurses and other breastfeeding support staff are required to undertake training in breastfeeding management and attend regular updates and should be seen as experts to whom mothers may be referred if they are experiencing nipple / breast pain.
• Specialist support for breastfeeding is also available from Gina Graham, Breastfeeding Support Co-ordinator Tel: 0774 8704901, g.graham@nhs.net, Irene Fenske, Infant Feeding Advisor Tel: 0781 063 7767, irene.fenske@nhs.net or the Breastfeeding Clinic at Victoria Hospital (Tel: 07585909587 for appointment Mon-Fri).

Information for pharmacists
• Information in this appendix follows the guidance for ‘off label’ use of medications in the NHS Fife “Policy for the use of Unlicensed Medicines”
• All medications described in this guidance are safe, at the doses given, for both the lactating mother and her infant in the combinations suggested above however interactions with other medications may occur.
• Pharmacists may be asked about the safety of fluconazole in breastfeeding and miconazole in young infants by GPs, other health care professionals or by mothers and should ensure that they are aware of this local guidance.
• Breastfeeding mothers requesting information / treatment for thrush directly from pharmacists, should be referred for breastfeeding assessment by a midwife, Public Health Nurse / Health Visitor or Breastfeeding Specialist (as for GPs above).
References


Further information:


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