Breastfeeding problems - Management

Scenario: Breast pain/discomfort in women who are breastfeeding - assessment and diagnosis

CKS safe practical clinical answers - *fast*

How do I assess a woman who develops breast pain when breastfeeding?

▪ Breast pain or discomfort in women who breastfeed is usually caused by one of the following: a full breast, breast engorgement, a blocked duct, mastitis (infectious or non-infectious), or a breast abscess. Pain or discomfort does not include the tingling sensation due to the 'letdown reflex' which is normal.

▪ **Consider causes of breast pain that are related to breastfeeding.**

o **Ask** about:

o Onset of the breast pain in relation to the birth — a full or engorged breast typically occurs in the first few days after the infant is born. A woman with a full breast experiences discomfort not pain.

o Whether one or both breasts are affected — fullness or engorgement almost always affects both breasts.

o Milk flow — milk does not flow well from an engorged breast.

o Whether it is easy for the infant to attach — the infant may find it difficult to attach and suckle from engorged breasts.

o The timing of the symptoms — pain or discomfort from a full or engorged breast is typically worse before a feed.

o **Look** for:

o Fever — absent in women with a full breast or a blocked duct; may be present in women with breast engorgement, mastitis, or a breast abscess. In women with breast engorgement the fever, if present, usually subsides within 24 hours.

o Redness — absent in women with a full breast; typically present in women with engorged breasts, a blocked duct, mastitis, or a breast abscess.

- Lump — a painful lump is typically present in women with a blocked duct or a breast abscess. There is a hard swelling (usually in a wedge-shaped distribution) in mastitis.

- A small white spot (about 1 mm in diameter) at the end of the nipple that is extremely painful when feeding — occurs in some women who have a blocked duct.

- In the absence of clinical feature of mastitis or engorgement some experts consider the possibility of ductal infection as a cause of deep breast pain that occurs during and between feeds. Other suggested but unproven causes for deep breast pain include spasm of the ducts, persistent reaction to nerve trauma, and prolactin-induced mastalgia.

- **Assess breastfeeding technique.** Ensure that the woman has an assessment by a skilled person who will observe and assess positioning and attachment, and ask about feeding patterns.

- Look for tongue tie (ankyloglossia) in the infant. Tongue tie makes attachment difficult, and may result in low milk intake.

▪ **Consider causes of breast pain that are not related to lactation.**

Basis for recommendation

Assessment of breast pain

▪ These recommendations for assessment of a woman with breast pain are based on expert opinion from a review of the causes and management of mastitis and a review of infant and young child feeding published by the World Health Organization [WHO, 2000; WHO, 2010] and in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009].

Deep breast pain

▪ A systematic review by the National Institute of Health and Clinical Excellence (NICE) identified no studies that addressed the prevalence, prevention or management of sore breasts that were caused by factors other than engorgement and mastitis. They commented that breast pain can occur during and between feeds in the absence of mastitis or engorgement and listed

suggested causes. Research is essential to identify how many women develop deep breast pain and in what circumstances sore nipples and deep breast pain are related. Trials of treatment will then be needed [NICE, 2005b]

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Assessment of breastfeeding technique

- This recommendation is based on expert opinion in a review of infant and young child feeding published by the World Health Organization [WHO, 2009].

What are the clinical features of a full breast?

- **Typical clinical features of a full breast**
  - It occurs between the second and sixth day after birth as the milk 'comes in'.
  - Both breasts are usually affected.
  - Milk flows well and sometimes leaks spontaneously.
  - The infant finds it easy to attach and suckle.
  - The breast feels hot, heavy, and hard.
  - The breast is *not* shiny, oedematous, or red.

Basis for recommendation

This information is based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization and *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation network [WHO, 2000; GAIN, 2009].

What are the clinical features of breast engorgement?

- **Typical clinical features of an engorged breast**
  - It occurs:

- In the first few days after the infant is born when there has been no or insufficient/inadequate milk removal (primary engorgement), *or*
- When feeding is less frequent or restricted, or the infant's demands have decreased (secondary engorgement).
- The breast is enlarged, swollen, and painful.
- It is often bilateral.
- The breast may be shiny and there may be oedema with diffuse red areas.
- The nipple may be stretched so that it is flat.
- Milk does not flow easily.
- The infant may find it difficult to attach and suckle.
- The woman may have a fever (this will usually settle within 24 hours).
- If untreated, lactation will be inhibited.

▪ Breast engorgement occurs more commonly in women who have had augmentation mammoplasty.

Basis for recommendation

This information is based on expert opinion from a review of the causes and management of mastitis and a review of infant and child feeding published by the World Health Organization [WHO, 2000; WHO, 2009], a review article [Barbosa-Cesnik et al, 2003], *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009], a Cochrane systematic review protocol [Mangesi and Muzinzini, 2009], and a case report [Acarturk et al, 2005].

What are the clinical features of a blocked duct?

▪ **Typical clinical features of a blocked duct**

- There is a painful lump in the breast.
- The woman has no fever.

- The skin may be red over the lump.

- A related condition is the appearance of a small (1 mm in diameter) white spot at the end of the nipple that is extremely painful when suckling; it is thought to be due to an overgrowth of epithelium (which forms a blister), or an accumulation of fatty or particulate material.

Basis for recommendation

This information is based on expert opinion from a review of the causes and management of mastitis and a review of infant and young child feeding published by the World Health Organization [WHO, 2000; WHO, 2009].

What are the clinical features of mastitis?

- **It is not possible to distinguish clinically when non-infectious mastitis has become infectious mastitis.** In both cases:

  - The woman has a painful breast.

  - Systemic symptoms of general malaise and fever are common.

  - Part of the breast (usually in a wedge-shaped distribution) is tender, red, swollen, and hard.

- **Suspect infectious mastitis** if:

  - The woman has a nipple fissure that is infected.

  - Symptoms do not improve or are worsening after 12–24 hours despite effective milk removal.

  - Bacterial culture is positive.

- For more information, see the CKS topic on Mastitis and breast abscess.

Basis for recommendation

Clinical features of non-infectious mastitis and infectious mastitis

▪ These clinical features are based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000] and review articles [Barbosa-Cesnik et al, 2003; Betzold, 2007].

Difficulty in distinguishing between non-infectious mastitis and infectious mastitis

▪ In both non-infectious and infectious mastitis, inflammation may be caused by the accumulated milk. The inflammation causes the tight junctions between the milk-secreting cells of the alveoli to open up and substances from plasma pass into the milk. Also, the increase in the pressure of the milk in the ducts and alveoli may force substances from milk into the surrounding tissue. Cytokines, both inflammatory and anti-inflammatory, are present in milk and these may induce an inflammatory response causing fever, chills, and muscle pain even when there is no infection [WHO, 2000; Betzold, 2007].

▪ Even if there is no infection initially, a secondary infection may occur [Betzold, 2007].

Suspicion of infectious mastitis

▪ These recommendations have been extrapolated from the criteria that the World Health Organization advises for starting an antibiotic [WHO, 2000; WHO, 2009]. As it is impossible to distinguish clinically between infectious mastitis and non-infectious mastitis, CKS suggests that if these criteria are present an infectious cause is more likely and antibiotic treatment appropriate.

▪ Expert opinion in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network is that in infectious mastitis, flu-like symptoms and pyrexia are more likely to last for more than 24 hours and there will be significant breast discomfort [GAIN, 2009].

What are the clinical features of a breast abscess?

▪ **Typical clinical features of a breast abscess**

o A history of recent mastitis.

o A painful, swollen lump in the breast with redness, heat, and swelling of the overlying skin.

o A fever.

- Malaise.
- On examination, the lump may be fluctuant with skin discolouration.

▪ Malaise and fever may have subsided if the woman has taken antibiotics.

What are the clinical features of presumed ductal infection?

Ductal infection is considered by some experts to be a cause of deep breast pain, but other experts dispute its existence.

▪ **Clinical features of infection of the mammary ducts** (this is not mastitis) include:

- A deep burning, aching, or shooting pain in the breast that is worse during or just after breastfeeding — this may be agonizing. There may be accompanying pain down the arm or in the back.
- The woman does not have fever or malaise.
- Clinical signs are variable and there may be:
- No redness, induration, or tenderness (that is, no clinical signs in the areola or nipple).
- Pinkness or redness, flaking, shininess, or fissure of the nipple.
- Purulent exudate or honey-coloured crusts suggesting bacterial infection.

Basis for recommendation

This information is based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000], a review article [Betzold, 2007], and in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009].

What breast conditions that are not related to lactation, cause breast pain in breastfeeding women ?

▪ **Breast conditions not related to lactation**

- Breast cancer, including inflammatory breast cancer.

- Fibroadenosis.
- Breast cyst — ruptured.
- Sub-areolar abscess (duct ectasia).
- Necrotizing fasciitis of the breasts.
- Fat necrosis of the breast.
- Paget's disease of the nipple.

▪ **Conditions of the chest wall**

- Costochondritis.
- Mondor's disease (phlebitis of the chest wall).

Basis for recommendation

This information is based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000], review articles [Giordano and Hortobagyi, 2003; Betzold, 2007], a textbook [Inch, 2000], and a case review [Cyrlak and Carpenter, 1999].

Breastfeeding problems - Management

Scenario: Nipple pain/soreness in women who are breastfeeding - assessment and diagnosis

CKS safe practical clinical answers - fast

How do I assess a woman with nipple pain/soreness?

Nipple pain or soreness in women who are breastfeeding is most commonly caused by poor attachment of the infant; this should be fully explored before considering other causes.

▪ **Ask about:**

- **Onset of the nipple pain in relation to the birth.**

o Problems with poor positioning and attachment most commonly present early in breastfeeding but may occur at any time.

o Candidal infection of the nipples is rare during the first few weeks after birth unless the woman had vaginal thrush during delivery or a history of deep breast candida or treatment with antibiotics.

o **When the nipple pain occurs.** The pain is usually:

o Present from the start of a breastfeed and throughout the feed if there is poor attachment.

o Worse just after feeds and lasting up to 1 hour if there is candidal infection of the nipple.

o Present during and immediately after breastfeeding, and when it is cold if Raynaud's disease is present.

o **The character and severity of the pain.**

o Severe pain typically occurs due to poor attachment and positioning and also in candidal infection and Raynaud's disease.

o Pain is intermittent in Raynaud's disease.

o A burning breast sensation and itching typically occur in candidal infection and eczema or dermatitis of the areola and nipple.

o Super sensitivity of the nipple to touch typically occurs in candidal infection.

o Pinpoint nipple pain typically occurs if there is a white spot/bleb.

o **Blanching of the nipple.**

o Pressure from suckling may cause blanching, compression, and pain if there is poor attachment.

o Blanching of the nipple followed by cyanosis and/or erythema suggests Raynaud's disease. The blanching occurs during and immediately after feeds, and also in between feeds if exposed to cold.

- **Change in the shape of the nipple after breastfeeding.**

- If there is any flattening of the nipple from side to side with a pressure line across the tip, then poor positioning and attachment is likely to be the cause.

- **Whether one or both breasts are affected:**

- Poor attachment may be unilateral or bilateral; candidal infection (except in the very early stages) is usually bilateral; Raynaud's disease is often bilateral but both nipples are not necessarily painful at the same time.

- **Discharge** — yellow discharge suggests coexistent bacterial infection.

  - **Look for:**

- **Inverted nipples** that predispose towards initial problems with attachment. Some inverted nipples are non-protractile which makes it more difficult for the infant to attach — protractility usually improves in the first week after the infant is born.

- **Constant loss of colour** in the nipples or part or all of the areola suggesting candidal infection. In candidal infection, the nipples may appear slightly swollen with a shiny appearance or contain fissures, or there may be mild redness around the areola. However the examination may also be normal.

- **A red rash with vesicles and crusting or with lichenification and scaling** that tends to spare the base of the nipple — suggesting eczema/dermatitis of the areola and nipple.

- **A nipple fissure.** The main cause of a nipple fissure is poor attachment.

- **Pinkness or redness, flaking, shininess, or fissure of the nipple.** Some experts associate these signs with ductal infection.

- **A typical vesicular rash of herpes simplex.**

- **Oral thrush or nappy rash in the infant,** as this suggests a possible candidal infection of the nipple.

- **Tongue tie (ankyloglossia) in the infant** which makes attachment difficult and may result in sore nipples.

▪ **Assess breastfeeding technique.** Ensure that the woman has an assessment by a skilled person who will observe and assess positioning and attachment and ask about feeding patterns.

Basis for recommendation

These recommendations are based on expert opinion in guidelines from the Breastfeeding Network [The Breastfeeding Network, 2009b], a narrative review [Mass, 2004], the *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009], guidelines on infant and child feeding from the World Health Organization [WHO, 2009], a textbook [Bardolph and Aston, 2000], and a case report [Page and McKenna, 2006].

What are the clinical features of candidal infection of the nipple?

▪ **Clinical features of candidal infection of the nipple** include:

- A burning sensation in the breast, intense itching, or severe nipple pain during and just after feeds. The pain may last up to 1 hour after feeds.
- Super-sensitivity of the nipple to touch.
- Constant loss of colour in the nipples or part or all of the areola.
- Redness of the nipple.
- Shooting pains radiating towards the chest wall, back, and shoulder.
- Bilateral symptoms (except in the very early stages) because the infant transfers the infection.
- A red flaky rash on the areola with itching or depigmentation.
- Nipples that are slightly swollen with a shiny appearance, fissure of the nipple, or mild redness around the areola. The areola and nipple may also appear normal.

▪ **Consider candidal infection if crackled nipples do not heal despite optimising attachment.** Bacterial infection is also a possibility.

▪ **Consider candidal infection of the nipple if the woman has nipple pain and risk factors for candidal infection** including:

- Recent antibiotic treatment.
- Vaginal candidiasis at delivery.
- Nipple damage.
- Use of bottles, dummies, and breast pumps in the first 2 weeks after delivery.
- An infant who has oral candidiasis.

Basis for recommendation

Clinical features

▪ The information on symptoms of candidal infection of the nipple is largely based on expert opinion from a review of the causes and management of mastitis and a review of infant and young child feeding published by the World Health Organization [WHO, 2000; WHO, 2009], a leaflet (*Thrush and breastfeeding*) published by the Breastfeeding Network [The Breastfeeding Network, 2009a], a leaflet (*Differential diagnosis of nipple pain)* produced by the breastfeeding network [The Breastfeeding Network, 2009b], a review article [Mass, 2004], and a textbook [Inch, 2000].

▪ The information on signs of candidal infection of the nipple is largely based on expert opinion from a leaflet (*Thrush and breastfeeding*) published by the Breastfeeding Network [The Breastfeeding Network, 2009a] and a review article [Fraser and Cullen, 2006].

▪ Information on the symptoms and signs of candidal infection of the nipple is also based on a prospective cohort study of 100 breastfeeding mothers which found that 89% of women with a positive culture for candidal infection from the nipple or mammary fold, or from breast milk had at least one of the following: burning sensation in the nipple or areola, stabbing pain in the breast, non-stabbing pain in the breast, shiny skin of the nipple or areola, or flaky skin of the nipple or areola [Francis-Morrill et al, 2004].

Risk factors

- This information is based on expert opinion from a leaflet (*Thrush and breastfeeding*) published by the Breastfeeding Network [The Breastfeeding Network, 2009a].

What are the clinical features of bacterial infection of the nipple?

- Typical clinical features of bacterial infection of the nipple are a yellow discharge from the nipple or a sloughy appearance.

Basis for recommendation

This information is based on expert opinion in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009].

What the clinical features of eczema or dermatitis of the areola and nipple

- **Typical clinical features of eczema or dermatitis of the nipple**

o The rash:

o Occurs acutely — as a red eruption with vesicles, crusting, and oozing.

o Occurs sub-acutely or chronically — as a dry, red, lichenified, scaling dermatitis.

o Is burning or itchy.

o Usually affects both breasts.

o May be confined to the nipple or extend beyond the areola, but tends to spare the area at the base of the nipple.

o There may be soreness, or pain of the nipple and/or areola.

o There may be a history of application of topical products to the nipple, such as soap, detergents, fragrances, chlorine clothing bleach, lanolin, beeswax, chamomile, or aloe vera.

o There may be a history of the dermatitis beginning after the infant started to take solid food.

Basis for recommendation

Clinical features

- This information is based on a description in expert review articles [Whitaker-Worth et al, 2000; Barankin and Gross, 2004] and a case report [Amir, 1993].

Use of nipple creams, lanolin, soap, or detergents on the breast

- Women with endogenous eczema are likely to develop nipple eczema.

- Women who are breastfeeding can develop a contact dermatitis of the nipple. This may be [Amir, 1993; Barankin and Gross, 2004]:

  - An irritant contact dermatitis due to soap, detergents, fragrances, chlorine clothing bleach, or other topical product used on the nipple.

  - An allergic contact dermatitis due to lanolin, beeswax, chamomile, aloe vera, or allergens in the infant's solid food.

What are the clinical features of Raynaud's disease of the nipple?

- **Typical clinical features of Raynaud's disease of the nipple**

  - There may be a history of Raynaud's disease.

  - Blanching of the nipple occurs followed by cyanosis and/or erythema.

  - Pain resolves when the nipple returns to its normal pink colour.

  - Pain is severe, debilitating, and throbbing, *and:*

  - Occurs during and immediately after breastfeeding.

  - May be precipitated by cold.

  - Nipple pain is present despite optimal attachment and positioning at the breast.

  - Raynaud's disease usually affects both nipples although not necessarily at the same time.

- For more information about the diagnosis and assessment of a person with suspected Raynaud's disease, see the CKS topic on Raynaud's phenomenon.

Basis for recommendation

This information is based on case reports of symptoms [Lawlor-Smith and Lawlor-Smith, 1997; Anderson et al, 2004; Page and McKenna, 2006].

Breastfeeding problems - Management

Scenario: Concerns about milk supply - assessment and diagnosis

CKS safe practical clinical answers - fast

How do I assess a woman who is concerned about her milk supply

- **Listen to the mother's concerns.** Particularly common is a perception of inadequate milk supply.
- **Take a feeding history.** Ask about:
  - Feeding:
  - Frequency of feeding, length of feed, night feeds.
  - Feeding difficulties (breastfeeding or other feeding).
  - Use of other fluids or foods: when started, quantity, and frequency.
  - Number of previous infants and their feeding history.
  - Use of nipple shields.
  - In the mother:
  - Changes in the breasts pre- and post-natally.
  - Past history of breast surgery.
  - Current medication.
  - Alcohol, smoking.

- Current illness.

- Stress, depression, lack of confidence, worry, rejection of the infant, or dislike of the idea of breastfeeding. (These do not directly affect milk production, but may interfere with the way in which the mother responds so that she breastfeeds less often. This can result in the infant taking less milk, and this leads to a failure in the stimulation of milk production.)

- In the infant:

- Growth chart (birthweight, weight now, length).

- Behaviour: settled or unsettled, placid or constantly crying.

- Stools: frequency, consistency.

- Urine frequency (if the infant is less than 6 months, should be at least six times a day).

- Illnesses.

- Use of a dummy.

- Tongue tie (ankyloglossia). Tongue tie makes attachment difficult, and may result in a low milk intake.

▪ **Assess breastfeeding technique.** Ensure that the woman has an assessment by a skilled person who will observe and assess positioning and attachment and ask about feeding patterns.

Basis for recommendation

These recommendations are based on expert opinion from a Canadian guideline on breastfeeding in healthy infants [British Columbia Reproductive Care Program, 1997] and guidelines from the World Health Organization [WHO, 2009].

Perceived insufficient supply of milk

▪ This is the most common reason for cessation of breastfeeding in the first 2 weeks of life in the UK [NICE, 2005b].

When should I suspect insufficient milk supply?

Mothers are often concerned that their infant is not getting enough milk, and it is important to differentiate between maternal perception and true insufficient milk supply. True insufficient milk supply occurs rarely. See Causes of low milk supply.

- **The most important cause of a low milk supply is poor attachment and positioning.**

o The most common symptoms are that the infant:

o Wants to feed more often than 2 hourly with no long intervals between feeds.

o Wants to suckle for more less than 5 minutes or more than 40 minutes (unless low birthweight or newborn).

o Is generally unsettled.

o The most common signs are:

o Poor weight gain. Soon after birth most infants may lose weight for a few days. They should be weighed by a health professional some time between the third and fifth day after birth. They should then start to gain weight. Most infants regain their birthweight in the 2 weeks after birth.

o Low urine output: less than six times in 24 hours especially if the urine is dark yellow.

- **Also suspect a low milk supply** if there is:

o A history of any of the following:

o Use of supplementary feeds as these cause the infant to suckle less and therefore less milk is produced.

o Use of a dummy as these replace suckling at the breast so the infant suckles less. They may also cause the infant to suckle less effectively therefore interfering with attachment.

o Use of a nipple shield.

o Too much solid food, too soon.

- In the mother:
- The breasts feel soft.
- The mother is not able to express her milk.

- Also suspect a poor milk supply if there is poor hydration of the infant. Suspect this if there is:
- A history of:
- Fewer than six heavy, wet nappies daily after day 6.
- Fewer than two soft yellow stools the size of a £2 coin in a 24 hour period in the first month (except during the first 4 days).
- Difficulty waking the infant because of lethargy.
- The infant feeding less than eight times within 24 hours in the first 8 weeks, and less than 5–6 times in 24 hours after 8 weeks.
- On examination of the infant:
- Signs of dehydration.

Basis for recommendation

These recommendations are based on expert opinion from a Canadian guideline on breastfeeding in healthy infants [British Columbia Reproductive Care Program, 1997], guidelines from the World Health Organization [WHO, 2009], the breastfeeding assessment form from the Unicef UK Baby Friendly Initiative 2008, adapted from a checklist in use by the Oxford Radcliffe NHS Trust [Oxford Radcliffe NHS Trust, 2008] and a patient information booklet from the Department of Health [DH, 2009].

Suspected feeding problems - overabundant milk supply

- **Suspect an overabundant milk supply:**
- **If the mother has the following symptoms:**
- Painful letdown.

- Milk spraying from the opposite breast when feeding.
- **If the infant:**
- Chokes and splutters, and arches their back when letdown occurs.
- Is colicky.
- Has frequent, often explosive loose stools which may be green.
- Gains weight rapidly.
- Has frequent wet nappies.
- Has a lot of wind.

Basis for recommendation

These recommendations are based on expert opinion from a Canadian guideline on breastfeeding in healthy infants [British Columbia Reproductive Care Program, 1997] and expert opinion in guidelines in infant and young child feeding from the World Health Organization [WHO, 2009].

Loose stools

- Ingesting large amounts of low fat milk (that is 'foremilk') means that the infant ingests large amounts of lactose, causing loose stools and colic [WHO, 2009].

Breastfeeding problems - Management

Scenario: Painless breast lump - assessment and diagnosis

CKS safe practical clinical answers - fast

How do I assess a breastfeeding woman with a painless breast lump?

- **Ask** about:
- The length of time that the lump has been present.
- Whether the lump has enlarged.

- Whether there is a family history of breast cancer.
- Nipple discharge.
- Systemic symptoms.

- **Look for signs of a galactocele:**
  - A smooth, rounded, painless, swelling in the breast.
  - Milky or creamy fluid is discharged from the nipple when the lump is pressed.

- **Look for signs which raise suspicion of cancer (rare):**
  - A discrete, fixed, hard lump, with or without skin tethering.
  - Unilateral eczematous skin or eczema of the nipple.
  - Nipple distortion.
  - Axillary lymphadenopathy.

Basis for recommendation

These recommendations on the assessment of a woman with a painless breast lump have been extrapolated from referral guidelines for suspected breast cancer from the National Institute for Health and Clinical Excellence [NICE, 2005a], and information about the clinical features of a galactocele based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000].

Breastfeeding problems - Management

Scenario: Breast pain/discomfort - management

How should I support a woman with full breasts?

- **Involve a breastfeeding specialist to assist the woman in improving the infant's attachment to the breast.** This will improve milk removal and prevent nipple damage.
  - For more information on indicators of good attachment, see Infant attachment.

- **Reassure the woman** that:

  - Fullness is due to the milk 'coming in' and is normal.

  - In a day or two her milk supply and the infant's needs will match each other.

Basis for recommendation

This recommendation is based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000] and a clinical review [Hoddinott et al, 2008].

How should I support a woman with engorged breasts?

- **Involve a breastfeeding specialist to assist the woman in improving the infant's attachment to the breast.** This will improve milk removal and prevent nipple damage.

  - For more information on indicators of good attachment, see Infant attachment.

- **Advise her to feed the infant with no restrictions** on frequency and length of feeds.

- **Teach her** how to:

  - Massage her breasts.

  - If necessary, relieve fullness and engorgement by hand expression of breast milk.

- **Advise her:**

  - To wear a well-fitting bra that does not restrict her breasts.

  - That if the breasts are *not* leaking, to avoid warm packs as these may increase swelling if the ducts are blocked. Warm packs may be used if the breasts are leaking.

  - That chilled cabbage leaves or cold gel packs may be helpful, after feeding or expressing, in reducing pain and oedema.

- **To relieve pain, offer paracetamol** as first choice.

- Ibuprofen is an alternative. Use the lowest effective dose for the shortest possible time.

How to support a woman to express breast milk

- Expressing breast milk should not be rushed. Explain that to express an adequate amount of breast milk may take up to 30 minutes.
- Teach the woman to express breast milk herself. Recommend the following:
  - Have a clean, sterilized, wide-necked container available.
  - Wash her hands thoroughly.
  - Sit or stand comfortably, and hold the container under her nipple and areola.
  - Gently massage the breast and nipple before expressing.
  - Cup her breast in her hands and feel back from the end of the nipple to the area where the breast feels different.
  - Put her thumb on her breast ABOVE the nipple and areola, and her first finger on the breast *below* the nipple and areola, opposite the thumb. Support the breast with her other fingers.
  - Gently squeeze, this should not hurt. if it hurts, the technique is wrong.
  - Release the pressure and repeat building up a rhythm.
  - At first no milk or only drops may come but after squeezing gently a few times, milk should start to drip out. It may flow in streams.
  - If the milk does not flow at all, try moving the fingers either a little way towards the nipple or a little further away.
  - When the flow slows move to the other breast.
  - Keep changing breasts until the milk stops or drips very slowly.
  - Avoid:
    - Rubbing or sliding the fingers along the skin.

- Squeezing or pinching the nipple.

- Store the milk in a sterilized container:

- In a fridge at 4°C or lower for up to 5 days, usually at the back.

- In the ice compartment of a fridge for 2 weeks.

- In a freezer for 6 months.

[DH, 2007; WHO, 2000; WHO, 2009].

What are the signs of good infant attachment and successful breastfeeding?

- Indicators of effective attachment include:

- The infant feeds with a wide mouth and an active tongue.

- More areola is visible above the infant's upper lip than below the infant's lower lip.

- The chin is touching the breast, lower lip rolled down, and nose free.

- There is no pain and breasts and nipples are comfortable.

- Nipples are the same shape as when feed began or slightly enhanced.

- Indicators of effective breastfeeding in infants include:

- Audible and visible swallowing.

- Rounded cheeks (not hollow).

- Initial rapid sucks followed by sustained rhythmic sucks and swallowing with occasional pauses.

- The infant's body is relaxed.

- A moist mouth.

- Regular soaked nappies.

- Infant lets go spontaneously or does so when the breast is gently lifted.

- Infant feeds for 5–30 minutes at most feeds.
- Infant is content after most feeds.

▪ Indicators of effective breastfeeding in the woman include:

- Breast softening.
- No compression of the nipple at the end of the feed.
- The woman feels relaxed and sleepy.

[WHO, 2000; National Collaborating Centre for Primary Care, 2006; Oxford Radcliffe NHS Trust, 2008]

Basis for recommendation

▪ This information is based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000], a review from the World Health Organization on Infant and young child feeding [WHO, 2009], and from a guideline on postnatal care from the National Institute for Health and Clinical Excellence (NICE) [National Collaborating Centre for Primary Care, 2006].

- NICE states that although warm packs improve vascular flow they may aggravate swelling if the ducts are blocked. Therefore, their use is only recommended if the breasts are leaking [National Collaborating Centre for Primary Care, 2006].
- WHO reviewed the evidence for the use of cabbage leaves, either chilled or at room temperature, for the relief of symptoms associated with engorgement. It found that cabbage leaves were as effective as cold packs in providing pain relief, but there was no evidence that they shortened the duration of the condition [WHO, 2000]. NICE also reviewed the available evidence on cabbage leaves and concluded that none of the studies were able to exclude a placebo effect [National Collaborating Centre for Primary Care, 2006].

Analgesia

▪ NICE advises an analgesic compatible with breastfeeding, such as paracetamol [National Collaborating Centre for Primary Care, 2006].

▪ For further information on the use of nonsteroidal anti-inflammatory drugs (NSAIDs) in women who are breastfeeding, see the section on Breastfeeding in the CKS topic on NSAIDs - prescribing issues.

How should I support a woman with a blocked duct?

▪ **Ensure that infant attachment is adequate.** Refer to a breastfeeding specialist where appropriate.

o Some experts recommend holding the infant with its chin pointing to the affected area of the breast to facilitate milk removal.

o Avoid obstructing the flow of milk, such as holding the breast too near the nipple or wearing clothing that is too tight.

▪ Recommend feeding from the affected breast frequently.

▪ Consider suggesting that the woman tries applying warm compresses or having a warm shower — but to only continue to do this if symptoms are relieved.

▪ **If these methods do not work, teach the woman to massage the breast *gently* using a firm movement towards the nipple.**

o Relief of symptoms and release of the milk may be helped by expression of particulate matter, or brown or greenish material that is fatty or stringy-looking. However this may not be present.

▪ **If there is a white spot on the nipple** associated with the blocked duct, remove it by bathing and then rubbing with a warm, damp towel or by using a sterile needle.

▪ **Advise the woman that recurrence is common,** and treatment should be re-started immediately should any symptoms develop.

Basis for recommendation

These recommendations are largely based on expert opinion from a review of the causes and management of mastitis published by the World Health Organization (WHO) [WHO, 2000].

▪ Massage should be done gently, as when the breast is inflamed it may sometimes make the situation worse.

Application of warm compresses or having a warm shower

▪ Expert opinion is conflicting about the use of warmth for the treatment of blocked duct. WHO recommend that women with a blocked duct should be advised to apply wet heat (such as warm compresses or a warm shower) [WHO, 2000]. However, the National Institute for Health and Clinical Excellence, in the guideline *Postnatal care: routine postnatal care of women and their babies*, caution that warm packs or hot compresses may aggravate swelling if ducts are blocked [National Collaborating Centre for Primary Care, 2006].

▪ CKS therefore recommends that use of a warm pack or a hot shower may be considered, but should be discontinued if there is no benefit.

How should I manage a woman with suspected ductal infection due to possible candida infection?

Ductal infection is considered by some experts to be a cause of deep breast pain, but other experts dispute its existence. Consider seeking specialist advice.

▪ Before investigating and treating possible ductal infection, ensure that positioning and attachment are optimal and that other causes of breast pain have been excluded.

▪ Consider prescribing fluconazole 150–300 mg as a single dose followed by 50–100 mg twice a day for 10 days (off-label use).

o Some experts recommend treatment with oral fluconazole *if* candidal infection is confirmed by culture of the breast milk.

o Other experts recommend empirical treatment with oral fluconazole if other causes of breast pain have been excluded.

▪ If bacterial infection is suspected (for example because of purulent exudate or crusts on the nipple):

o Prescribe flucloxacillin 500 mg four times a day for 10–14 days.

o Prescribe erythromycin 500 mg four times a day to women who are allergic to penicillin.

Basis for recommendation

Treatment with oral fluconazole

▪ The recommendation to only treat candidal infection if confirmed by milk culture is from a CKS expert reviewer.

▪ The recommendation to treat empirically after excluding other causes for the symptoms is based on advice in the Breastfeeding Network leaflet *Thrush and breastfeeding* [The Breastfeeding Network, 2009a].

Dose of fluconazole

▪ The recommended dose of fluconazole is based on advice in the Breastfeeding Network leaflet *Thrush and breastfeeding* [The Breastfeeding Network, 2009a].

Treatment with oral antibiotics

▪ CKS could find no guidance on the choice of antibiotic or the length of the course. We have therefore recommended the regimens that are used for mastitis.

Safety of the recommended drugs during breastfeeding

▪ For further information, see the sections on Oral antibiotics and Oral fluconazole in Prescribing information.

How should I manage mastitis?

▪ For information on the management of non-infectious and infectious mastitis, see the CKS topic on Mastitis and breast abscess.

Basis for recommendation

For recommendations on the management of mastitis and the basis for these recommendations, see the CKS topic on Mastitis and breast abscess.

How should I manage a woman with a breast abscess

- For information on the management of breast abscess, see the CKS topic on Mastitis and breast abscess.

Basis for recommendation

For recommendations on the management of breast abscess and the basis for these recommendations, see the CKS topic on Mastitis and breast abscess.

What sources of information are available for the woman?

- **Organizations with a telephone helpline and a website**

o These are staffed by breastfeeding specialists (usually another mother in her own home who has had extensive training in breastfeeding).

o Association of Breastfeeding Mothers (http://abm.me.uk): telephone 08444 122 949.

o Breastfeeding Network (www.breastfeedingnetwork.org.uk): telephone 0300 100 0210.

o NHS Choices (www.breastfeeding.nhs.uk): National Breastfeeding Helpline telephone: 0300 100 0212.

o La Leche League (www.laleche.org.uk): telephone 0845 456 1855.

o National Childbirth Trust (www.nct.org.uk): telephone 0300 330 0771.

o Foundation for the Study of Infant Deaths (http://fsid.org.uk): telephone 0808 802 6868.

o Bliss (www.bliss.org.uk); telephone 0500 618140.

- **Websites offering information**

o Best Beginnings (www.bestbeginnings.info) — includes video clips of breastfeeding, positioning, and attachment.

o Drugs in Breast milk helpline (www.breastfeedingnetwork.org.uk/drugs-in-breastmilk.html) — information on taking prescription drugs whilst breastfeeding.

o Healthtalkonline (www.healthtalkonline.org) — includes video clips of women talking about their breastfeeding experiences and web links to other information resources.

o Health Promotion Agency for Northern Ireland (www.breastfedbabies.org). Provides detailed information on breastfeeding.

o UNICEF UK Baby Friendly Initiative (www.babyfriendly.org.uk) Provides information and links to research on breastfeeding.

▪ **Booklets that can be downloaded**

o *Off to the best start* (www.dh.gov.uk). This leaflet provides information on breastfeeding, expressing milk and finding further breastfeeding help.

o *Breastfeeding and returning to work: Off to a good start* (www.healthscotland.com). Aspects of combining breastfeeding with work.

Basis for recommendation

These sources of information were suggested in a expert review article [Hoddinott et al, 2008] and by CKS expert reviewers.

Prescriptions

For information on contraindications, cautions, drug interactions, and adverse effects, see the electronic Medicines Compendium (eMC) (http://emc.medicines.org.uk), or the British National Formulary (BNF) (www.bnf.org).

Analgesia: use when required

Age from 10 years to 11 years 11 months

Paracetamol s/f susp: 250mg to 500mg up to four times a day

Paracetamol 250mg/5ml oral suspension sugar free

Take one to two 5ml spoonfuls every 4 to 6 hours when required for pain relief. Maximum of 4 doses in 24 hours.

Supply 300 ml.

Age: from 10 years to 11 years 11 months

NHS cost: £1.97

OTC cost: £3.48

Licensed use: yes

Ibuprofen s/f susp: 300mg up to three times a day

Ibuprofen 100mg/5ml oral suspension sugar free

Take three 5ml spoonfuls three times a day when required for pain relief. Do not exceed the stated dose.

Supply 300 ml.

Age: from 10 years to 11 years 11 months

NHS cost: £4.64

OTC cost: £11.12

Licensed use: yes

Age from 12 years to 17 years 11 months

Paracetamol tablets: 500mg to 1g up to four times a day

Paracetamol 500mg tablets

Take one or two tablets every 4 to 6 hours when required for pain relief. Maximum of 8 tablets in 24 hours.

Supply 50 tablets.

Age: from 12 years to 17 years 11 months

NHS cost: £0.83

OTC cost: £1.98

Licensed use: yes

Ibuprofen tablets: 200mg to 400mg three to four times a day

Ibuprofen 200mg tablets

Take one or two tablets 3 to 4 times a day when required for pain relief. Do not exceed the stated dose.

Supply 56 tablets.

Age: from 12 years to 17 years 11 months

NHS cost: £1.11

OTC cost: £2.66

Licensed use: yes

Age from 18 years onwards

Paracetamol tablets: 1g up to four times a day

Paracetamol 500mg tablets

Take two tablets every 4 to 6 hours when required for pain relief. Maximum of 8 tablets in 24 hours.

Supply 50 tablets.

Age: from 18 years onwards

NHS cost: £0.83

OTC cost: £1.98

Licensed use: yes

Ibuprofen tablets: 400mg three times a day

Ibuprofen 400mg tablets

Take one tablet three times a day when required for pain relief. Do not exceed the stated dose.

Supply 21 tablets.

Age: from 18 years onwards

NHS cost: £0.46

OTC cost: £1.10

Licensed use: yes

Suspected ductal infection: fluconazole

Age from 12 years onwards

Fluconazole capsules: 50mg twice a day for 10 days

Fluconazole 50mg capsules

Take three capsules straight away as a single dose, and then take one capsule twice a day for 10 days

Supply 23 capsules.

Age: from 12 years onwards

NHS cost: £3.84

Licensed use: no - off-label indication

Age from 18 years onwards

Fluconazole capsules: 100mg twice a day for 10 days

Fluconazole 50mg capsules

Take six capsules straight away as a single dose, and then take two capsules twice a day for 10 days.

Supply 46 capsules.

Age: from 18 years onwards

NHS cost: £7.68

Licensed use: no - off-label indication

Suspected ductal infection: flucloxacillin

Age from 10 years to 11 years 11 months

Flucloxacillin suspension: 500mg four times a day for 10 days

Flucloxacillin 250mg/5ml oral suspension

Take two 5ml spoonfuls four times a day for 10 days.

Supply 400 ml.

Age: from 10 years to 11 years 11 months

NHS cost: £107.40

Licensed use: yes

Flucloxacillin suspension: 500mg four times a day

Flucloxacillin 250mg/5ml oral suspension

Take two 5ml spoonfuls four times a day for 14 days.

Supply 600 ml.

Age: from 10 years to 11 years 11 months

NHS cost: £184.32

Licensed use: yes

Age from 12 years onwards

Flucloxacillin capsules: 500mg four times a day for 10 days

Flucloxacillin 500mg capsules

Take one capsule four times a day for 10 days.

Supply 40 capsules.

Age: from 12 years onwards

NHS cost: £4.47

Licensed use: yes

Flucloxacillin capsules: 500mg four times a day for 14 days

Flucloxacillin 500mg capsules

Take one capsule four times a day for 14 days.

Supply 56 capsules.

Age: from 12 years onwards

NHS cost: £6.26

Licensed use: yes

Suspected ductal infection (penicillin allergy): erythromycin

Age from 10 years to 11 years 11 months

Erythromycin s/f suspension: 500mg four times a day for 10 days

Erythromycin ethyl succinate 500mg/5ml oral suspension sugar free

Take one 5ml spoonful four times a day for 10 days.

Supply 200 ml.

Age: from 10 years to 11 years 11 months

NHS cost: £8.26

Licensed use: yes

Erythromycin s/f suspension: 500mg four times a day

Erythromycin ethyl succinate 500mg/5ml oral suspension sugar free

Take one 5ml spoonful four times a day for 14 days.

Supply 300 ml.

Age: from 10 years to 11 years 11 months

NHS cost: £12.39

Licensed use: yes

Age from 12 years onwards

Erythromycin e/c tablets: 500mg four times a day for 10 days

Erythromycin 250mg gastro-resistant tablets

Take two tablets four times a day for 10 days.

Supply 80 tablets.

Age: from 12 years onwards

NHS cost: £5.05

Licensed use: yes

Erythromycin e/c tablets: 500mg four times a day

Erythromycin 250mg gastro-resistant tablets

Take two tablets four times a day for 14 days.

Supply 112 tablets.

Age: from 12 years onwards

NHS cost: £7.08

Licensed use: yes

Breastfeeding problems - Management

Scenario: Nipple soreness / pain - management

Nipple pain / soreness due to poor attachment

- **Reinforce the importance of correct positioning and effective infant attachment when breastfeeding.**

o The first few sucks may be strong, but if there is nipple pain during a feed, arrange for a skilled breastfeeding specialist to observe the feed. It is likely that positioning and attachment can be improved.

- Inform the woman that:

o It is important to continue to breastfeed unless the mother finds breastfeeding too painful.

o Limiting the duration of breastfeeding does not relieve nipple soreness.

o There is no evidence that applying topical lanolin or breast milk relieves breast soreness and further research is needed.

o Incorrect positioning and attachment is not helped by the use of nipple shields or breast shells.

- **If the skin is broken and there is a scab, or if clothing sticks to the nipple:**

o Apply a thin smear of white soft paraffin or use a paraffin-impregnated gauze.

- **If the nipple does not heal with the measures described above, suspect an infection** which may be due to candida or a bacterial infection.

What are the signs of effective infant attachment and breastfeeding?

- Indicators of effective attachment include:

o The infant feeds with a wide mouth and an active tongue.

- More areola is visible above the infant's upper lip than below the infant's lower lip.
- The chin is touching the breast, lower lip rolled down, and nose free.
- There is no pain and breasts and nipples are comfortable.
- Nipples are the same shape as when feed began or slightly enhanced.

▪ Indicators of effective breastfeeding in infants include:

- Audible and visible swallowing.
- Rounded cheeks (not hollow).
- Initial rapid sucks followed by sustained rhythmic sucks and swallowing with occasional pauses.
- The infant's body is relaxed.
- A moist mouth.
- Regular soaked nappies.
- Infant lets go spontaneously or does so when the breast is gently lifted.
- Infant feeds for 5–30 minutes at most feeds.
- Infant is content after most feeds.

▪ Indicators of effective breastfeeding in the woman include:

- Breast softening.
- No compression of the nipple at the end of the feed.
- The woman feels relaxed and sleepy.

[WHO, 2000; National Collaborating Centre for Primary Care, 2006; Oxford Radcliffe NHS Trust, 2008]

Basis for recommendation

Management of sore nipples

- These recommendations are from the National Institute for Health and Clinical Excellence (NICE) guideline *Postnatal care: routine postnatal care of women and their babies* [National Collaborating Centre for Primary Care, 2006].

- Sore nipples are usually due to suction trauma that is secondary to poor attachment. Therefore, effective attachment when breastfeeding is essential for prevention of nipple pain.

- Improving positioning and attachment is likely to be more effective than 'resting the nipples and expressing'. Removing the infant from the breast in order to heal the nipples creates a problem of maintaining sufficient milk production. Less milk will be removed from the breast by expressing than is removed by suckling [Royal College of Midwives, 2002].

- A systematic review by NICE concluded that no one treatment has been shown to be effective for relieving sore nipples. Hydrogel dressings may increase the incidence of infection and nipple shields may interfere with attachment. Further research is needed on breast milk or lanolin applied to the nipples, and the use of breast shells [NICE, 2005b].

Management of nipple damage

- These recommendations are based on expert opinion from a textbook [Inch, 2000] and a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000]. For treatment of a nipple fissure without mastitis, moist wound healing is recommended either with paraffin-impregnated gauze [Inch, 2000] or by using white soft paraffin alone [The Breastfeeding Network, 2002]. Moist wound healing prevents the epithelium from drying out and reduces the trauma when the nipple is stretched (along with the breast tissue) during feeding. However, only improved attachment will allow the nipple to heal [Inch, 2000].

Suspicion of bacterial infection of the nipple

- This recommendation is based on expert opinion in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009]. This seems reasonable, considering:

o A prospective study of 227 breastfeeding women found that 64 women (28%) had a crack, fissure, or exudate of the nipple. Of these, 36% were colonized by *Staphylococcus aureus* [Livingstone et al, 1996].

How should I manage a woman with suspected candidal infection of the nipple

- **Provide information and support to the mother:**

o To continue to breastfeed.

o To wash her hands well after each nappy change.

o To wash and sterilize dummies, teats, nipple shields, and toys that are put in the mouth.

- **Treat both the mother and the infant simultaneously.**

- For the mother:

o Prescribe miconazole 2% cream first-line. Advise the woman to apply the cream to the nipples after every breastfeed for 2 weeks, even if symptoms have resolved, and to wipe away any visible cream before the next feed.

o If the nipples are very red and inflamed, prescribe hydrocortisone 1% cream as well. A combination cream or ointment (miconazole 2% with hydrocortisone 1%) may be used.

o If a nipple fissure is also present, infection with *Staphylococcus aureus* may be present. Prescribe Fusidic acid cream or ointment to be used after every breastfeed for 5–7 days.

o If the symptoms do not resolve or get worse (such as deep pain developing) then check that:

o Attachment and positioning are optimum.

- There is no other cause for the symptoms.

- Prescribe fluconazole 150–300 mg as a single dose followed by 50–100 mg twice a day for 10 days. Continue local treatment in both the mother and the infant.

▪ Treat the infant at the same time:

- Advise applying miconazole gel gently with a clean finger to all mucosal surfaces in the mouth. For dosage information, see Miconazole oral gel. Continue for 48 hours after the lesions have healed. Do not apply on a spoon as there is a risk of choking.

- 0–4 weeks: 1 mL (applied directly onto the affected areas of the infant's mouth) two to four times daily.

- Over 1 month: 2.5 mL (applied directly onto the affected areas of the infant's mouth) twice daily.

- If the thrush does not resolve, seek specialist advice.

Basis for recommendation

Information for the mother

▪ These recommendations are based on expert opinion from a leaflet *Thrush and breastfeeding,* published by the Breastfeeding Network [The Breastfeeding Network, 2009a].

Treat both the mother and the infant simultaneously

▪ This recommendation is based on expert opinion from a leaflet *Thrush and breastfeeding,* published by the Breastfeeding Network [The Breastfeeding Network, 2009a] and a review article [Fraser and Cullen, 2006].

Choice of antifungal treatment in the mother

▪ The Breastfeeding Network in a leaflet *Thrush and breastfeeding* [The Breastfeeding Network, 2009a]:

- Recommends the use of miconazole cream for candidal infection of the nipple. They point out that miconazole gel should not be used on the nipples as it is unlikely to penetrate the skin.

- Advises against the use of clotrimazole 1% cream as there are anecdotal reports that it is associated with allergic reactions.

- Miconazole is also recommended for candidal infection of the nipple in a narrative review [Wiener, 2006]. Although nystatin may be used, there seems to be more resistance to this compared with miconazole.

- Nystatin cream is no longer available.

Use of corticosteroid cream if the nipples are red

- This recommendation is based on expert opinion from a leaflet (*Thrush and breastfeeding*) published by the Breastfeeding Network [The Breastfeeding Network, 2009a].

Topical antibiotic for a nipple fissure

- This recommendation is based on expert opinion from a leaflet (*Thrush and breastfeeding*) published by the Breastfeeding Network [The Breastfeeding Network, 2009a].

- A prospective study of 227 breastfeeding women found that 64 women (28%) had a crack, fissure, or exudate of the nipple. Of these, 36% were colonized by *Staphylococcus aureus* [Livingstone et al, 1996].

- CKS suggests the use of fusidic acid for suspected staphylococcal infection.

Use of an oral antifungal in women if miconazole cream is ineffective

- The recommendation to prescribe oral treatment as well as topical treatment if topical treatment alone is ineffective is based on expert opinion from a leaflet (*Thrush and breastfeeding*) published by the Breastfeeding Network [The Breastfeeding Network, 2009a]:

- There are no large randomized controlled trials to guide treatment, only a few small studies and anecdotal reports.

- The World Health Organization recognizes fluconazole as being compatible with breastfeeding.

Choice of topical antifungal in an infant

- This recommendation is based on good evidence from a prospective randomized trial which found that, in immunocompetent infants, miconazole oral gel is significantly more effective than nystatin suspension in the treatment of oropharyngeal thrush.

Safety of the recommended antifungals

- For further information, see the sections on Miconazole oral gel and Oral fluconazole in Prescribing information.

How should I support a woman with suspected bacterial infection of the nipple?

- Prescribe fusidic acid 2% cream to be used after every breastfeed for 5–7 days.
- If the infection is severe, prescribe an oral antibiotic. Use flucloxacillin 500 mg four times a day for 7 days.
- If the woman is allergic to penicillin, prescribe erythromycin 500 mg four times a day for 7 days.

Basis for recommendation

These recommendation are based on expert opinion in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009] and an expert review [Betzold, 2007].

Use of fusidic acid after every breastfeed

- This recommendation is based on expert advice in a textbook [Inch, 2000].

Choice of topical or oral antibiotics

- Expert opinion from a textbook [Inch, 2000] states that fusidic acid is often sufficient for treating bacterial infection of the nipple. This appears reasonable, considering:
  - A prospective study of 227 breastfeeding women found that 64 women (28%) had a crack, fissure, or exudate of the nipple. Of these, 36% were colonized by *Staphylococcus aureus* [Livingstone et al, 1996].

- Limited evidence from a small, randomized, prospective study suggests that breastfeeding women with sore nipples and a break in the skin from which *S. aureus* had been cultured were more likely to improve and less likely to develop mastitis if treated with oral antibiotics rather than with a topical antibiotic (fusidic acid or mupirocin) or optimal breastfeeding technique alone [Livingstone and Stringer, 1999]. However, as most women will not be colonized with *S. aureus*, only a small number of women would benefit from an antibiotic (oral or topical).

- CKS therefore recommends the use of a topical antibiotic (unless the infection is severe) until more evidence is available. Future Cochrane systematic reviews will investigate:

- Interventions for treating painful nipples among breastfeeding women [Dennis et al, 2008].

- Interventions for preventing mastitis after childbirth [Crepinsek et al, 2008].

- An oral antibiotic is recommended if infection is severe based on expert opinion in *Guidelines on the treatment, management & prevention of mastitis* for Northern Ireland published by the Guidelines and Audit Implementation Network [GAIN, 2009]. As a staphylococcus is the most likely infecting organism, CKS recommends flucloxacillin 500 mg four times a day for 7 days. If the women is allergic to penicillin, erythromycin 500 mg four times a day may be used instead. Guidelines from the Health Protection Agency (HPA) recommend a 7 day course of antibiotics for staphylococcal skin infections [HPA, 2009].

Safety of the recommended antibiotics during breastfeeding

- For further information, see the sections on Oral antibiotics and Fusidic acid cream or ointment in Prescribing information.

How should I support a woman with eczema or dermatitis of the nipple

- **Avoid possible precipitating factors:**

- Commercial nipple creams and lanolin.

- Soap and shampoo on the breasts and nipples.

- Swimming in chlorinated water.

▪ **If the eczema has started after the infant begins solid foods** there is a possibility that the woman is allergic to the food in the infant's mouth. Therefore advise:

- Breastfeeding before offering solid foods.

- Giving the infant a drink of water to rinse food from the mouth before a feed.

- Rinsing the nipple area with expressed breast milk or water after each feed.

- If symptoms still continue then if possible identify and eliminate the offending food from the infant's diet.

▪ **Advise the woman to apply a corticosteroid ointment or cream thinly to her nipples.**

- The corticosteroid ointment or cream should be applied twice a day, immediately after a feed. Any visible cream or ointment and should be gently wiped off before the next feed.

- If the eczema is mild, use a low-potency ointment or cream (such as hydrocortisone 1%).

- If the eczema is moderate or severe use a moderate-potency steroid ointment or cream for 3–5 days only (for example clobetasone butyrate 0.05%), followed by a low-potency ointment or cream.

- Stop the corticosteroid ointment as soon as the eczema has cleared.

▪ Use fusidic acid ointment or cream after every breastfeed for 5–7 days if the eczema is infected.

▪ **If the eczema is unilateral and does not respond to treatment,** suspect Paget's disease of the nipple and refer urgently (within 2 weeks).

Basis for recommendation

Avoid possible precipitating factors

- This recommendation is based on expert opinion from review articles [Whitaker-Worth et al, 2000; Barankin and Gross, 2004] and a case report [Amir, 1993].

o Irritant contact dermatitis may be caused by soaps, detergents, chlorine, clothing bleach, fragrances, and ointments containing irritants.

o Allergic contact dermatitis may be due to: a delayed hypersensitivity reaction to chamomile, beeswax, or lanolin in nipple creams; allergens in the infant's solid food; and preservatives in topical antifungal creams.

Eczema that has started since the infant has taken solid foods

- The recommendations to manage possible maternal allergy to food in the infant's mouth are based on expert opinion from a review article [Barankin and Gross, 2004] and a case report [Amir, 1993].

Treatment with topical corticosteroids

- These recommendations are based on expert opinion in a review article [Barankin and Gross, 2004].

Use of fusidic acid

- These recommendations are based on expert opinion in guidelines from the Health Protection Agency (HPA) who recommend using the same treatment for infected eczema as for impetigo. The recommendation to apply after every breastfeed is based on expert opinion in a textbook [Inch, 2000].

Safety of topical corticosteroids and fusidic acid during breastfeeding

- For further information, see the sections on Topical corticosteroids and Fusidic acid cream or ointment in Prescribing information.

How should I manage a woman with Raynaud's disease of the nipple?

- Ensure that infant attachment and positioning is optimal.
- Provide support and information on the following:
  - Avoid exposure to cold, to wear warm clothing, and breastfeed in a warm environment.
  - Apply local heat or have a warm shower.
  - If appropriate:
  - Stop smoking as this may cause vasoconstriction.
  - Avoid caffeine as this may cause rebound vasoconstriction.
- Consider prescribing a trial of nifedipine for 2 weeks, either as 5 mg immediate release three times a day or as 30 mg modified release once a day. If symptoms recur after stopping the nifedipine, re-start and continue for as long as necessary.
- Explain to the mother that Raynaud's disease of the nipple may reoccur in future pregnancies and during future breastfeeding.

Basis for recommendation

Attachment and positioning

- This recommendation is based on expert advice in a textbook [Royal College of Midwives, 2002].

General advice

- These recommendations are based on expert advice from the authors of case reviews [Garrison, 2002; Hardwick et al, 2002; Anderson et al, 2004].

Safety of nifedipine during breastfeeding

- Nifedipine is considered to be suitable for use by women who are breastfeeding (off-label use). For further information, see the section on Nifedipine in Prescribing information.

Dose of nifedipine

- The recommended dose of nifedipine is based on the expert opinion of authors of three case reviews [Garrison, 2002; Anderson et al, 2004; Page and McKenna, 2006].

Duration of course of nifedipine

- A two week course of nifedipine is recommended initially based on the expert opinion of authors of two case reviews [Garrison, 2002; Anderson et al, 2004].

- CKS recommends that nifedipine is continued for as long as necessary if symptoms recur after a 2 week course as nifedipine is considered to be suitable for use by women who are breastfeeding.

Recurrence in future pregnancies

- The recommendation to provide support and information to women who have Raynaud's disease of the nipple may reoccur in future pregnancies is based on the expert opinion from the author of a case review [Anderson et al, 2004].

Prescriptions

For information on contraindications, cautions, drug interactions, and adverse effects, see the electronic Medicines Compendium (eMC) (http://emc.medicines.org.uk), or the British National Formulary (BNF) (www.bnf.org).

Preventing soreness

Age from 10 years onwards

White soft paraffin BP

White soft paraffin solid
Apply thinly to the affected nipple(s) after each breastfeed. Gently wipe away any visible ointment from the nipple before the next feed.
Supply 500 grams.

Age: from 10 years onwards
Licensed use: no - off-label indication

Paraffin-impregnated gauze

Paraffin gauze dressing BP sterile normal loading 175-220g per square metre 10cm x 10cm
Use as directed.
Supply 10 dressings.

Age: from 10 years onwards

NHS cost: £3.00
Licensed use: yes

Suspected Candida: mother

Age from 10 years onwards

1st line: miconazole cream for application to the nipples

Miconazole 2% cream
Apply a small amount of cream to the affected nipple(s) after every breastfeed for 14 days.
Gently wipe away any visible cream from the nipple before the next feed.
Supply 30 grams.

Age: from 10 years onwards
NHS cost: £1.82
Licensed use: no - off-label dose
Patient information: It is important that you complete the 14 day course, even if your symptoms disappear after a few days.

1st line: miconazole + hydrocortisone cream for application to the nipples

Miconazole 2% / Hydrocortisone 1% cream
Apply a small amount of cream to the affected nipple(s) after every breastfeed for 14 days.
Gently wipe away any visible cream from the nipple before the next feed.
Supply 30 grams.

Age: from 10 years onwards
NHS cost: £2.28
Licensed use: no - off-label indication
Patient information: It is important that you complete the 14 day course, even if your symptoms disappear after a few days.

Age from 12 years onwards

Fluconazole capsules: 50mg twice a day for 10 days

Fluconazole 50mg capsules
Take three capsules straight away as a single dose, and then take one capsule twice a day for 10 days
Supply 23 capsules.

Age: from 12 years onwards
NHS cost: £3.84
Licensed use: no - off-label indication

Age from 18 years onwards

Fluconazole capsules: 100mg twice a day for 10 days

Fluconazole 50mg capsules
Take six capsules straight away as a single dose, and then take two capsules twice a day for 10 days.
Supply 46 capsules.

Age: from 18 years onwards
NHS cost: £7.68
Licensed use: no - off-label indication

Suspected Candida: infant

Age under 1 month

Miconazole s/f oral gel: use 1ml four times a day

Miconazole 20mg/g oromucosal gel sugar free
Measure 1ml using the oral syringe provided. Then, using a clean finger, apply the gel in small amounts until the whole of the inside of the mouth has been covered. Do NOT apply the gel near the back of the throat (risk of choking). Apply the gel two to four times a day, after feeds. Supply 15 grams.

Age: under 1 month
NHS cost: £2.85
Licensed use: no - off-label age

Patient information: Use after feed. Do not apply the gel to the back of the throat as this can cause choking in young babies. Continue treatment for 48 hours after lesions have healed. Consult your doctor if condition has not improved after 7 days of treatment.

Age from 1 month to 3 months

Miconazole s/f oral gel: use 2.5ml twice a day

Miconazole 20mg/g oromucosal gel sugar free
Measure 2.5 ml using the oral syringe provided. Then, using a clean finger, apply the gel in small amounts until the whole of the inside of the mouth has been covered. Do NOT apply the gel near the back of the throat (risk of choking). Apply the gel twice a day, after feeds. Supply 80 grams.

Age: from 1 month to 3 months
NHS cost: £4.38
Licensed use: no - off-label age

Patient information: Use after feeds. Do not apply the gel to the back of the throat as this can cause choking in young babies. Continue treatment for 48 hours after lesions have healed. Consult your doctor if condition has not improved after 7 days of treatment.

Age from 4 months to 1 year 11 months

Miconazole s/f oral gel: use 2.5ml twice a day

Miconazole 20mg/g oromucosal gel sugar free
Measure 2.5 ml using the oral syringe provided. Then, using a clean finger, apply the gel in small amounts until the whole of the inside of the mouth has been covered. Do NOT apply the gel near the back of the throat (risk of choking). Apply the gel twice a day, after feeds. Supply 80 grams.

Age: from 4 months to 1 year 11 months
NHS cost: £4.38
Licensed use: yes

Patient information: Use after feed or food and drink. If there are separate lesions, a small amount of gel can be smeared on to the affected area twice a day with a clean finger. Continue treatment for 48 hours after lesions have healed. Consult your doctor if condition has not improved after 7 days of treatment.

Suspected Staph

Age from 10 years to 11 years 11 months

Flucloxacillin oral solution: 500mg four times a day

Flucloxacillin 250mg/5ml oral solution
Take two 5ml spoonfuls four times a day for 7 days.
Supply 300 ml.

Age: from 10 years to 11 years 11 months
NHS cost: £92.16
Licensed use: yes

Erythromycin s/f suspension: 500mg four times a day

Erythromycin ethyl succinate 500mg/5ml oral suspension sugar free
Take one 5ml spoonful four times a day for 7 days.
Supply 140 ml.

Age: from 10 years to 11 years 11 months
NHS cost: £6.20
Licensed use: yes

Age from 10 years onwards

Fusidic acid 2% cream: 5 days

Fusidic acid 2% cream
Apply a small amount of cream to the affected nipple(s) after every breastfeed for 5 days.
Gently wipe away any visible cream from the nipple before the next feed.
Supply 15 grams.

Age: from 10 years onwards
NHS cost: £1.92
Licensed use: yes
Patient information: Do not use for more than 7 days. If infection is still present after this, return to your doctor.

Fusidic acid 2% cream

Fusidic acid 2% cream
Apply a small amount of cream to the affected nipple(s) after every breastfeed for 7 days.
Gently wipe away any visible cream from the nipple before the next feed.
Supply 15 grams.

Age: from 10 years onwards
NHS cost: £1.92
Licensed use: yes
Patient information: Do not use for more than 7 days. If infection is still present after this, return to your doctor.

Age from 12 years onwards

Flucloxacillin capsules: 500mg four times a day

Flucloxacillin 500mg capsules
Take one capsule four times a day for 7 days.
Supply 28 capsules.

Age: from 12 years onwards
NHS cost: £3.13

Licensed use: yes

Erythromycin gastro-resistant tablets: 500mg four times a day

Erythromycin 250mg gastro-resistant tablets
Take two tablets four times a day for 7 days.
Supply 56 tablets.

Age: from 12 years onwards
NHS cost: £3.54
Licensed use: yes

Suspected eczema / dermatitis: topical corticosteroids

Age from 10 years onwards

Low potency: hydrocortisone 1% cream

Hydrocortisone 1% cream
Apply thinly to the affected nipple(s) twice a day, after feeds. Make sure that you wipe off any remaining cream before the next breastfeed.
Supply 30 gram.

Age: from 10 years onwards
NHS cost: £1.73
Licensed use: no - off-label indication

Low potency: hydrocortisone 1% ointment

Hydrocortisone 1% ointment
Apply thinly to the affected nipple(s) twice a day, after feeds. Make sure that you wipe off any remaining cream before the next breastfeed.
Supply 30 g.

Age: from 10 years onwards
NHS cost: £2.39
Licensed use: no - off-label indication

Moderate potency: clobetasone butyrate 0.05% cream

Clobetasone 0.05% cream
Apply thinly to the affected nipple(s) twice a day, after feeds, for up to 5 days. Make sure that you wipe off any remaining cream before the next breastfeed.
Supply 30 gram.

Age: from 10 years onwards
NHS cost: £1.86
Licensed use: no - off-label indication

Moderate potency: clobetasone butyrate 0.05% ointment

Clobetasone 0.05% ointment
Apply thinly to the affected nipple(s) twice a day, after feeds, for up to 5 days. Make sure that you wipe off any remaining ointment before the next breastfeed.
Supply 30 g.

Age: from 10 years onwards
NHS cost: £1.86
Licensed use: no - off-label indication

Suspected Raynaud's disease

Age from 10 years to 17 years 11 months

Nifedipine capsules: 5mg three times a day

Nifedipine 5mg capsules
Take one capsule three times a day.
Supply 84 capsules.

Age: from 10 years to 17 years 11 months
NHS cost: £3.02
Licensed use: no - off-label age
Patient information: Do NOT eat or drink products containing grapefruit juice whilst taking this medicine.

Age from 10 years onwards

Nifedipine m/r tablets (Adalat LA®): 30mg once a day

Adalat LA 30 tablets
Take one tablet once a day.
Supply 28 tablets.

Age: from 10 years onwards
NHS cost: £7.59
Licensed use: no - off-label indication
Patient information: Do NOT eat or drink products containing grapefruit juice whilst taking this medicine.

Age from 18 years onwards

Nifedipine capsules: 5mg three times a day

Nifedipine 5mg capsules
Take one capsule three times a day.
Supply 84 capsules.

Age: from 18 years onwards
NHS cost: £3.02
Licensed use: yes
Patient information: Do NOT eat or drink products containing grapefruit juice whilst taking this medicine.

Breastfeeding problems - Management

Scenario: Problems with milk supply - management

Supporting the mother concerned about her milk supply

- Ensure that the mother has sufficient support. Many mothers who are concerned that their infant is not getting enough milk are usually anxious and in need of effective support to build confidence.

- Explain to the mother that exclusive breastfeeding is normally sufficient to support growth and development during the first 6 months of life.
- **Ensure that the woman has an assessment by a skilled person** who will enable the woman to have confidence in her ability to produce sufficient milk and who will be able to:
- Observe and assess the feeding pattern.
- Give information and support about effective positioning, infant attachment and sucking behaviour.
- **Provide information and support to the mother so that she can be sure that her infant is getting enough milk** if she is exclusively breastfeeding and the infant:
- Has plenty of wet nappies: at least six heavy, wet nappies in 24 hours.
- Is growing and gaining weight.
- Is awake and alert for some of the time.
- From the fourth day passes at least two soft, yellow stools a day (each stool at least £2 coin size) for the first few weeks.
- Is generally calm and relaxed during feeds.
- Is content after most feeds.
- **Explain to the woman** that:

- Soon after birth an infant may lose weight for a few days. Most recover their birthweight by the end of the first week if they are healthy and feeding well. All infants should have recovered their birthweight by 2 weeks of age.
- It is normal in the early weeks of breastfeeding for an infant to feed 8–12 times in 24 hours. Although this may decline to eight times in 24 hours once breastfeeding is well established, the infant may sometimes increase the frequency of feeding such as during growth spurts.
- **Discourage the use of a dummy** until breastfeeding is well established.

Basis for recommendation

Sufficient support

- This recommendation is based on best clinical practice.

Explanation to the mother

- This recommendation is based on expert advice in a policy statement from the American Academy of Paediatrics [Gartner et al, 2005].
- Concerns about an insufficient milk supply are common reasons for giving supplementary feeds or ceasing to breastfeed [National Collaborating Centre for Women's and Children's Health, 2008].

Assessment and support from a skilled person

This recommendation is based on expert opinion in a review article [Hoddinott et al, 2008].

- Effective attachment and milk removal are the key to an adequate supply. Expert opinion in a review article is that evidence suggests that good information and support will resolve most problems of perceived insufficiency [Fraser and Cullen, 2006].

Information for the mother regarding signs of an adequate milk supply

- This recommendation is based on expert opinion in a guideline *Antenatal care: routine care for the healthy pregnant woman* from the National Institute for Health and Clinical Excellence [National Collaborating Centre for Women's and Children's Health, 2008], expert advice in a

guideline from the department of Health [DH, 2007] and the breastfeeding assessment form from the Unicef UK Baby Friendly Initiative 2008, adapted from a checklist in use by the Oxford Radcliffe NHS Trust [Oxford Radcliffe NHS Trust, 2008].

Information for the mother on early transient weight loss

- This recommendation is based on expert opinion from a review article on infant and young child feeding [WHO, 2009].

Information about feeding patterns

- This recommendation is based on expert opinion from a policy statement from the American Academy of Paediatrics [Gartner et al, 2005].

Information about avoidance of the use of a dummy

- This recommendation is based on expert opinion from a policy statement from the American Academy of Paediatrics [Gartner et al, 2005]. Use of a dummy may interfere with the establishment of breastfeeding in some infants. Guidelines from the World Health Organization do not recommend use of a dummy [WHO, 2009]. However a systematic review from the National Institute for Health and Clinical Excellence reviewed the available evidence and concluded that existing evidence suggests no effect of dummy use on the duration of breastfeeding. However early use of a dummy and use by first time mothers had been associated with more negative outcomes: therefore there may be circumstances in which the continuance of breastfeeding may become vulnerable because of the use of a dummy [NICE, 2005b].

How should I support a woman with low milk supply

- **Seek urgent paediatric advice if there are concerns about the well-being of the infant,** such as dehydration or poor weight gain.
- **Ensure that the woman has an assessment by a skilled person, such as a midwife,** who will enable the woman to have confidence in her ability to produce sufficient milk and who will be able to:
  - Observe and assess the feeding pattern.
  - Provide information and support about effective positioning, infant attachment, and sucking behaviour.

- Encourage frequent feeds, breast drainage, and about how to express breast milk after feeds to stimulate milk production.
- Provide information and support about building up milk supply by offering both breasts at each feed and alternating between breasts.
- Increase skin-to-skin contact as this will increase opportunities for breastfeeding.

- **If the above measures fail, the infant may need supplementary feeds.**
- Discuss with women who have had a breast-reduction surgery that breastfeeding is possible but partial breastfeeding may be necessary.
- In exceptional circumstances a galactagogue may be prescribed (a galactagogue is a drug to boost a faltering milk supply). CKS recommends seeking specialist advice before prescribing a galactagogue.

- A galactagogue should only be used when:
- Treatable causes, such as ineffective attachment and positioning have been optimised.
- Increased frequency of breastfeeding, hand expression of milk, and breast pumps have all been tried without effect.
- There is a faltering milk supply due to illness in the infant or mother or due to prematurity.
- There has been unavoidable separation of the infant and mother.
- After expression of milk by hand or by pump for weeks, there is a decline in milk production.
- Re-lactation (reestablishing milk supply after cessation of breastfeeding) is advisable.
- There are no drugs licensed in the UK for this purpose.
- Domperidone is the drug of choice because of its adverse effect profile and efficacy, and because only small amounts pass into breast milk.

What are the signs of effective infant attachment and efficient breastfeeding?

- Indicators of effective attachment include:
  - The infant feeds with a wide mouth and an active tongue.
  - More areola is visible above the infant's upper lip than below the infant's lower lip.
  - The chin is touching the breast, lower lip rolled down, and nose free.
  - There is no pain and breasts and nipples are comfortable.
  - Nipples are the same shape as when feed began or slightly enhanced.
- Indicators of effective breastfeeding in infants include:
  - Audible and visible swallowing.
  - Rounded cheeks (not hollow).
  - Initial rapid sucks followed by sustained rhythmic sucks and swallowing with occasional pauses.
  - The infant's body is relaxed.
  - A moist mouth.
  - Regular soaked nappies.
  - Infant lets go spontaneously or does so when the breast is gently lifted.
  - Infant feeds for 5–30 minutes at most feeds.
  - Infant is content after most feeds.
- Indicators of effective breastfeeding in the woman include:
  - Breast softening.
  - No compression of the nipple at the end of the feed.
  - The woman feels relaxed and sleepy.

[WHO, 2000; National Collaborating Centre for Primary Care, 2006; Oxford Radcliffe NHS Trust, 2008]

Basis for recommendation

Seek urgent medical advice if the infant is unwell

- CKS has based this recommendation on accepted clinical practice.
- Hypernatraemic dehydration can occur in a healthy full-term infant owing to poor milk supply [Hoddinott et al, 2008].

Assessment, information and support

- These recommendations are based on expert opinion in a review article [Hoddinott et al, 2008] and a Canadian guideline on breastfeeding healthy infants [British Columbia Reproductive Care Program, 1997], and guidelines from the the National Institute for Health and Clinical Excellence (NICE) [National Collaborating Centre for Primary Care, 2006]. NICE comments that expert opinion forms the basis of evidence as there are no research studies evaluating methods of feeding enhancement, and that frequent feeds (including night feeds) stimulate milk production.

Suggestion to use supplementary feeds

- This recommendation is based on expert opinion in a Canadian guideline on breastfeeding healthy infants [British Columbia Reproductive Care Program, 1997].

Women who have had a reduction mammoplasty

- This recommendation is based on expert opinion in a review article [Hoddinott et al, 2008]. Milk supply may be reduced in women who have had breast-reduction surgery, owing to interruption of nerves or blood supply.
- Limited evidence from small retrospective studies shows that women are able to breastfeed after reduction mammoplasty. Encouragement to breastfeed is important and some women may need to use supplementary feeds.
    - A retrospective study of 178 women who had had reduction mammoplasty found that of 74 women who had given birth and attempted to breastfeed, 52 (70%) were successful [Kakagia et al, 2005].

- A retrospective study of 78 women who had given birth after breast reduction surgery found that of the 37 women who chose to breastfeed, 15 women did so exclusively, and eight women breastfed with supplementation [Brzozowski et al, 2000].

Information on the use of a galactagogue

- This recommendation is based on expert advice from the UK Medical Information (UKMI) who reviewed the evidence on galactagogues and advised that domperidone is the drug of choice. The UKMI stated that the most commonly used dosage is 10 mg to 20 mg three to four times daily [UKMi, 2010a].
- Guidelines from the World Health Organization suggest that rarely re-lactation is advisable in infants who are malnourished or ill [WHO, 2009].

How should I support a woman with overabundant milk supply

- Ensure that the woman has an assessment by a skilled person who will be able to:
  - Observe and assess the feeding pattern.
  - Give information and support about effective positioning, infant attachment and sucking behaviour.
  - Provide information about early feeding cues in order to encourage feeding as soon as the infant is hungry, but calm (early feeding cues).
  - If the infant is unable to attach effectively to the breast because of an overabundant milk supply, it may be helpful to express a little milk until the flow slows and then attach the infant to the breast. It is important to express only a small amount or the oversupply will continue.
  - Advise the mother to feed on one breast per feed. This means that the infant will get more fat-rich milk (sometimes called the 'hindmilk') but monitor this carefully to prevent a large drop in the milk supply.
  - If the forceful letdown reflex continues some women may find it helpful to lie on their back to breastfeed. Some women find that holding their fingers close to the areola during feeds is helpful but care needs to be taken to avoid blocking ducts.

Basis for recommendation

These recommendations are based on advice from a Canadian guideline on breastfeeding in healthy infants [British Columbia Reproductive Care Program, 1997], guidelines on infant and young child feeding from the World Health Organization [WHO, 2009], and a review article [Hoddinott et al, 2008] and a textbook [Lawrence and Lawrence, 1999].

Breastfeeding problems - Management

Scenario: Painless breast lump - management

How do I support a breastfeeding woman who develops a painless breast lump?

- **Refer all breastfeeding women who develop a painless breast lump to a breast surgeon.**
  - If breast cancer is suspected, refer urgently (to be seen within 2 weeks).
  - Advise the woman to continue breastfeeding.
- **If the woman has a suspected galactocele:**
  - Discuss continuing breastfeeding as normal.
  - Refer for:
  - Confirmation of the diagnosis by ultrasonography or aspiration.
  - Treatment by aspiration (the cyst usually fills up again after a few days and repeated aspiration is needed) or surgical excision under local anaesthetic.

Basis for recommendation

Referral of all women with a painless breast lump

- CKS recommends, based on good clinical practice, that all breastfeeding women who develop a painless breast lump should be referred to a breast surgeon so that a diagnosis can be made.

Urgent referral for suspected breast cancer

- This recommendation is based on referral guidelines for suspected breast cancer from the National Institute for Health and Clinical Excellence [NICE, 2005a].

Management of a galactocele

- These recommendations are based on on expert opinion from a review of the causes and management of mastitis published by the World Health Organization [WHO, 2000].