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PRACTICE POINTER

Providing effective evidence based support for breastfeeding women in primary care

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What you need to know

- Many mothers do not find breastfeeding as easy as they expect and may have concerns or encounter challenges. For most breastfeeding women, challenges can be resolved with early, sensitive, skilled help
- Mothers often have concerns about their breast milk supply being adequate, but few have true milk insufficiency. Encourage them to boost and maintain their supply by breastfeeding in response to their baby's feeding cues
- Infant crying can be distressing and parents may be tempted to attribute this to gastrointestinal problems such as gastro-oesophageal reflux disease or cow's milk allergy, but these conditions are rare (<5%); support women by listening carefully to their concerns and carry out a full assessment in accordance with guidance from the National Institute for Health and Care Excellence
- Remote breastfeeding support is best used to complement rather than replace face-to-face support

Baby Kyle was born at term by caesarean section after an uneventful first pregnancy. His birthweight was 3.550 kg and now at 2 weeks old he has regained his birthweight. His mother Ellie has contacted the surgery to make an appointment with the GP and attends a video consultation. Ellie is breastfeeding Kyle and explains she has struggled to access the breastfeeding support she would have liked because of the pandemic. She is concerned Kyle is not getting enough milk. She reports pain when feeding and explains that he has been crying and unsettled after feeds. Ellie has searched online and wonders if Kyle has a cow's milk protein allergy and she asks if she should exclude dairy from her diet. She is tearful and reports feeling low and isolated.

The World Health Organization recommends exclusive breastfeeding for six months with continued breastfeeding until 2 years and beyond.[1 2] Breast milk contains many bioactive factors, such as immune factors and cytokines that help protect against infection, and hormones and growth factors that help to regulate energy intake and maturation of the infant's organs.[3] Even in high income countries, babies who are not breastfed are at increased risk of gastroenteritis,[4 5] otitis media,[6] obesity, and diabetes.[7] Breast milk is also a significant factor in development of the microbiome,[8] which appears to affect gene expression and to be associated with lifelong effects on health and wellbeing (eg, the prevention of obesity).[9] Importantly, women who breastfeed have a reduced risk of breast cancer and a probable reduced risk of type 2 diabetes and ovarian cancer.[10] Breastfeeding is more than provision of nutrition for infants; it can provide increased opportunity for relationship building between mother and baby. Yet globally in 2019 only around 44% of babies were exclusively breastfed from birth to 5 months.[11] The UK has some of the lowest breastfeeding rates worldwide and 80% of women stop before they want to.[12] In a 2020 survey, almost half (45.3%) were still breastfeeding any amount at six months,[13] while at the same time, 82% of women also used infant formula.

Both exclusivity and duration of breastfeeding are increased when support is offered to breastfeeding women.[14] This article provides an overview of best practice information and practical ways for primary care practitioners to support mothers to navigate common breastfeeding challenges. We also consider what is likely to be most effective when providing support during the covid-19 pandemic.

In this article we refer to mothers and women but this information may also apply to other lactating people. Be sensitive to people's preferred terms such as chestfeeding or human milk feeding.

Why do breastfeeding women need support?

Breastfeeding is learnt by mother and baby together and mothers often do not find breastfeeding as easy as they anticipated. Even women who are highly motivated to breastfeed can feel unsupported and undermined by early breastfeeding challenges, social norms, and subtle influences such as marketing of breast milk substitutes. When women encounter breastfeeding challenges in a context of cultural or social expectation to breastfeed, their sense of themselves as "good mothers" can be compromised, in some cases leading to loss of self-confidence and breastfeeding self-efficacy.[15]

Social norms around infant feeding vary across different population groups, and younger women, those from the lowest socioeconomic groups, and those who have spent less time in education are less likely to start and continue to breastfeed.[12] The best available evidence suggests that in the UK, women from ethnic minority groups are more likely to practise any breastfeeding, but rates of exclusive breastfeeding beyond one week are comparable with white mothers.[12] Some migrant women report a need to supplement with formula after migration because of a lack of familial support and differences in culture.[16] Women with a range of long term health conditions (eg, diabetes, epilepsy) are more likely to experience problems breastfeeding and cease exclusive breastfeeding before six months, which can

be attributed to additional difficulties in initiation of breastfeeding and inconsistent and poor advice about the safety of medications.[17]

Aggressive marketing of breast milk substitutes despite the International Code on the Marketing of Breast milk Substitutes[18] has contributed to the myth that formula milks are almost equivalent to breast milk.[19] Large multinational companies undermine breastfeeding through advertising, sponsorship of professional events, and provision of free samples and gifts,[20] which has led to infant formula being viewed as a normal food rather than a specialist food required for the small number of infants who cannot receive breast milk. As growth in sales of formula milks has now slowed in high income countries,[21] formula companies are aggressively targeting growing economies,[20] and growth in sales is now exceeding 10% in many low and middle income countries.[21] Given that the harms of not breastfeeding are greater in low and middle income countries,[10] this is particularly troubling.

However, a Cochrane review examining the effectiveness of breastfeeding support for healthy women with healthy term babies found moderate quality evidence that timely, skilled support can help resolve common concerns regarding breast milk supply or breast and nipple pain, and more women are able to breastfeed exclusively and for longer.[14] Women and infants with medical and/or social care needs benefit from additional breastfeeding support to help reduce inequities in breastfeeding rates.[22 23] Providing effective support hinges on paying attention to women's emotional wellbeing, actively listening, and acknowledging women's concerns (box 1).

Box 1: How to support women to continue breastfeeding

- Actively listen to mothers, encourage them to share what is important to them and reflect back to acknowledge understanding
- Use a facilitative style of support[24] and encourage mothers to return for further support if needed
- Use a discursive two-way exchange so mothers can understand why a particular suggestion might work[15]
- Provide practical realistic information that is personalised[15 24]
- Support mothers to spend time with their baby in skin-to-skin contact[25]
- Encourage mothers to feed their baby in response to feeding cues
- Guide women verbally and consider using models of the breast or baby to explain and demonstrate how to hold their baby for feeding
- Refer to specialist breastfeeding support to ensure effective feeding through good positioning and attachment of the baby at the breast
- Consider perinatal mental health at every contact and make use of resources such as the RCGP perinatal toolkit in your assessment

How to support breastfeeding women with common challenges

Concerns about breast milk supply

Many women are concerned that when infants are unsettled or cry after feeding it means that they do not have enough milk for their baby, and this is a common reason for early cessation and/or decreased exclusivity of breastfeeding.[26] The actual prevalence of milk insufficiency is unknown (although it is often quoted to be 1%), and evidence suggests that perceived milk insufficiency is not associated with an actual milk insufficiency in healthy women.[27] However, this information alone rarely eases concerns about an unsettled, unpredictable baby,[12 28] and it can be hard to judge the amount of milk a baby is taking.

Additional early support from infant feeding teams may be necessary for some women.[17 29] Systematic review level evidence suggests that women with diabetes in pregnancy[30] and obesity[31] are more likely to have delayed lactogenesis II (onset of copious milk production usually between 48 and 72 hours after birth, stimulated by a drop in progesterone). A systematic review of observational studies found that women who birth by caesarean section are less likely to initiate breastfeeding.[29] They are also more likely to experience breastfeeding difficulties[32] but once breastfeeding is initiated they are equally likely to be breastfeeding at six months.[32] A cohort study conducted in the UK found that women with hypertensive disorder were less likely to be breastfeeding at 6 to 8 weeks but did not find any significant differences in breastfeeding outcomes in women who experienced major obstetric haemorrhage or high dependency or intensive care admission.[33] Although these are under-researched, other conditions that might cause insufficient milk supply include breast hypoplasia[34] and some types of breast surgery, especially if ducts have been damaged.

When a baby is consuming too little breast milk, the most likely reasons are restricted access to the breast (ie, not feeding often enough in response to early feeding cues, such as stirring, opening mouth, sucking fingers, rooting) and/or ineffective feeding causing inadequate milk transfer.[35] If not resolved these will lead to reduced breast milk supply, so encourage mothers to spend time skin to skin with their baby to elicit instinctive behaviours and to notice early feeding cues. Infant factors that make it difficult for the infant to remove milk include tongue tie[36] and other conditions that make it difficult to sustain suckling, such as heart disease or neonatal infection.

The most accurate indicator of sufficient feeding is infant weight gain. Women can also be reassured by observable signs, such as breasts feeling softer after feeds and nappy content: more than six heavy wet nappies and at least two yellow stools in a baby more than 5 days old.[37 38] Because milk production is stimulated by the baby suckling at the breast, milk supply can be supported or increased by breastfeeding more frequently, when the baby is well latched and observably swallowing.

The range of "normal" infant feeding behaviours is wide, so for babies with normal growth and weight gain and no other concerning features on assessment, reassure parents that young babies feed often, and cluster feeding may also occur. Refer any women with feeding concerns and/or babies with slow or static weight gain to the midwife, health visitor, or local infant feeding team early for holistic assessment and support. Interventions that improve self-efficacy, such as verbal encouragement and praise, are more likely to be effective than education alone,[39] so supportive communication with women when they have such concerns is crucial. Key ways of enhancing and maintaining a good supply of breast milk are presented in box 2.

Box 2: Practical tips for maintaining breast milk supply[35]

- Encourage parents to be attentive to early feeding cues, such as stirring, opening mouth, sucking fingers, rooting, and to offer a feed before their baby is crying
- Explain that the baby should be able to feed from the first breast until satisfied and then to offer the second breast at each feed. The first breast can be offered again if needed as more milk will have been made
- Encourage mothers to look for signs their baby is breastfeeding effectively—long, slow, rhythmic sucking and swallowing, with pauses during the active feeding stage of a feed

- Encourage unrestricted feeding in response to baby's feeding cues
- Reassure mothers that frequent feeding and cluster feeding in response to early cues is normal behaviour
- Explain the need to avoid over full breasts as this will reduce supply—gentle hand expression of breast milk may be helpful
- Encourage mother and baby to stay close and encourage the mother to spend time skin to skin with her baby to increase production of oxytocin, which is responsible for the "let down" of breastmilk
- Suggest relaxation techniques and skin-to-skin contact with the baby (to enhance oxytocin production) if the mother is feeling stressed because the baby is crying[40]
- Do not suggest supplements of formula unless clinically indicated—reduced suckling at the breast will lead to actual reduced breast milk supply

Nipple pain

Pain in the nipples is experienced by a high proportion of breastfeeding women (36% to 79% across studies)[41 42] and is one of the most common reasons for breastfeeding cessation in the first week.[12] In most women, the pain is a result of trauma to the nipple through suboptimal attachment,[43] while a smaller proportion of women also experience visible damage to their nipples (eg, cracks).[42] Nipple pain may be associated with decreased feeding or ineffective removal of milk, which can adversely affect breast milk supply.[41] It can also increase the risk of milk stasis and mastitis.[44] Suboptimal attachment and nipple cracks are not the only causes of pain: assess nipple pain using the detailed guidance provided by Amir et al.[45] Reassure women with no signs of more serious causes that pain is often transient (for many, reduces after 10 days[46 47]), responds to adjustment to improve attachment, and can be eased for most women with topical application of a few drops of expressed breast milk (which contains anti-infective components) and support.[14]

Engorgement and mastitis

When breasts are engorged, the flow of breast milk within the ducts can be obstructed. Stasis can, in turn, cause an inflammatory response owing to components of milk entering the tissues or capillaries. Obstruction of milk ducts and surrounding inflammation can then lead to blocked ducts and mastitis[48] as well as reduced supply of breast milk. Encourage women to recognise and alleviate engorgement in response to the baby's feeding cues in order to prevent blocked ducts and mastitis.[49] A warm compress may reduce the inflammation and help the milk to flow, and gentle hand expression or use of a breast pump can be used to relieve engorgement if the baby is not ready to feed.

Mastitis is inflammation of the breast with or without infection, characterised by a wedge shaped area of the breast that is hot, swollen, red (or changed in colour in women with darker skin) and tender, often accompanied by a raised temperature and the mother feeling unwell.[50] The first line of treatment is to encourage frequent feeding starting on the affected breast to lessen the pain during initial milk ejection; reassure mothers that breastfeeding is safe at all stages of mastitis.[49] A nursing baby does this most effectively, but gentle hand expression may be helpful to soften the area around the nipple to enable the baby to attach more easily. Some women also find a warm compress or shower helpful. Non-steroidal anti-inflammatory medications might reduce oedema and help the flow of breast milk, and paracetamol may also help as pain can affect the production of oxytocin and inhibit the let-down of milk. Mastitis is usually self-limiting, and if frequent effective breastfeeding is achieved, the mother should begin to feel better within 24 hours. Little evidence is available on the effectiveness of antibiotic therapy for mastitis;[51] however, if symptoms are not improving within 24 hours of onset or if the mother is increasingly clinically unwell, consider an antibiotic.[52] If the mother remains clinically unwell and there is no improvement within 48 hours of oral antibiotic therapy, abscess and/or sepsis is possible so refer to hospital.[53]

Feeding concerns related to the crying infant

GPs may be the first to be contacted by mothers experiencing distress when their baby remains unsettled and crying after feeds. Periods of crying may relate to hunger, discomfort, or tiredness. Colic affects up to 20% of infants,[54] is most common in the first six weeks of life, and is defined as recurrent and prolonged periods of crying, fussing, or irritability that occurs without obvious cause and which cannot be prevented or resolved. Examine the baby to exclude underlying physical cause resulting from disease, injury, or illness that presents with crying. Note whether growth is normal. Colic usually resolves from three months and in most cases by six months. Trials of treatment are not helpful and may be harmful in the absence of symptoms suggesting organic disease.[55] The wish to offer a solution to parental distress caused by their crying baby can be strong, but inappropriate treatments can distract or delay the resolution of stressful feeds and an unsettled baby. Listen carefully to parents and inquire with non-judgmental language about mood and support, since seeking care for a baby who is crying may reflect anxiety over feeding, poor support, or both (box 3). Carefully consider in your assessment whether infant behaviours that are typical for age and developmental stage—including regurgitation and crying—are generating parental concerns about gastrointestinal function and be aware these are easily medicalised.

Box 3: Conversations to support breastfeeding mothers and enable shared decision making

How is she/are they feeling?

Listen to her feelings, acknowledge concerns, and respond empathically

How is feeding going?

Ask open questions, with active non-judgmental listening to deepen understanding. How the mother is feeding her baby tells you much about her experiences and available support.

Identify concerns

Often mothers find their concerns overwhelming, so encouraging her to verbalise them will help her to identify what is troubling her (see Perinatal Mental Health Toolkit)[56]

Explore understanding of how breastfeeding works

It can be reassuring for the woman to know that while breastfeeding she cannot overfeed her baby, and that closeness through feeding provides comfort and rest, as well as food. Support from the infant feeding team will help her identify signs of adequate milk intake and how to maximise her supply

Summarise

Share evidence and treatment options to inform decision making. Summarise options with immediate and longer term goals. Ensure the mother knows how to access support locally and out of hours (eg, via the National Breastfeeding Helpline)

Avoid directive questions

These can feel challenging and are rarely constructive (eg, are you still breastfeeding?)

More than 40% of infants younger than 3 months of age might have some regurgitation of feeds or gastro-oesophageal reflux.[57] It can be distressing to observe overt regurgitation of a breast milk feed for a parent struggling with milk supply, and the possibility of reflux is a common cause of concern in parents of young children. Most reflux is "functional" or physiological and does not cause harm; it

will improve over time and resolves by the age of 1 year.[57] Fewer than 5% of infants have gastro-oesophageal reflux disease (GORD),[42] but distinguishing between physiological reflux and GORD is challenging, and despite a constant prevalence, evidence suggests that prescriptions for acid-suppressing treatments in children are increasing.[58] The National Institute for Health and Care Excellence (NICE) offers detailed guidance on investigating GORD in infants, and advises against offering acid-suppressing medications to children with regurgitation alone.[59]

Non-IgE cow's milk allergy (a delayed immune mediated allergic response to one or more proteins in cow's milk typically manifesting between 2 and 72 hours after ingestion) is also very uncommon in breastfeeding infants, affecting approximately 0.5-1% of babies,[60] and is nonetheless a common concern for breastfeeding parents with a fussy baby. Non-IgE allergy presents with a cluster of symptoms: gastrointestinal symptoms such as vomiting, abdominal flatus and discomfort, aversion to feeds, blood in stools in an otherwise well baby; moderate treatment-resistant atopic eczema; upper respiratory symptoms (rhinorrhoea) among other symptoms, and associated with a family history of allergy.[61] Perceived abdominal discomfort, flatus, "colic" or crying alone are unlikely to be a response to cow's milk allergy and do not justify advice to exclude cow's milk from a breastfeeding mother's diet, as the idea of making this dietary change without proved allergy could undermine a woman's confidence and risk early cessation of breastfeeding.[62] In any suspected allergy, a full assessment should be carried out in accordance with NICE guidance.[63]

Encourage breastfeeding and enlist the support and expertise of an infant feeding specialist to observe feeding as this provides useful information and may assist in avoiding over or misdiagnosis. In particular, observing a feed—as well as following both NICE and Cochrane guidance—can facilitate appropriate diagnosis.[19 57]

Medications and breastfeeding

Breastfeeding women and their physicians frequently have questions about whether different medications are safe to take while nursing. Breastfeeding women require treatment for ongoing chronic conditions as well as newly diagnosed ones such as infection, postpartum depression and anxiety, and musculoskeletal issues that may or may not be related to nursing. An overview of prescription guidance for some medications relevant in the postnatal period is summarised in table 1. Non-pharmacological management of these and other conditions, when possible as a first line of treatment, is lower risk for both mother and infant, but is not always feasible or effective.

Table 1 | Examples of medications commonly prescribed in the postnatal period and during breastfeeding[64]

Medications	Summary	Safety in infants	Considerations
Analgesics			
Paracetamol	First line and most widely used analgesic in lactation	Amount in breast milk is low. Even if baby is receiving paracetamol liquid directly, the breastfeeding mother can take a full dose	Treatment of pain is important. Most analgesics are unlikely to cause harm to the well, term infant. No mother should be left in pain because she is breastfeeding.
Non-steroidal anti-inflammatory drugs (NSAIDS) Ibuprofen Diclofenac Celecoxib	Ibuprofen—highly plasma protein bound so low levels in breast milk. Limited data on diclofenac but short half-life implies this is acceptable. Low levels of celecoxib in breast milk	No adverse effects in infants with ibuprofen in case reports, so this is the preferred NSAID. No significant adverse effects known with diclofenac use (case reports). Celecoxib is safe based on available data.	NSAIDS listed are considered safe. Naproxen has a long half-life and a study (gastrointestinal effects) and case report suggested rare adverse effects (haematological effects)
Opioids[65] Dihydrocodeine Tramadol	Dihydrocodeine is the preferred opioid analgesic because it is metabolised by a different pathway. Tramadol—level in breast milk is low; influenced by maternal metabolism	All opioids should be used at lowest possible dose for shortest possible time as they cause drowsiness in infants[66]	Consider for moderate acute pain not relieved with paracetamol and NSAIDs—usually only for first few days after birth. **Avoid codeine. MHRA recommend not to be used during lactation**[67]
Antibiotics			
Penicillins Cephalosporins Macrolides Trimethoprim Nitrofurantoin	Can be taken during lactation	Any antibiotic licensed for use in children is compatible with breastfeeding—may produce temporary lactose intolerance (presenting with loose stools and/or gastric discomfort in the baby)[68]	Prescribe when clinically indicated according to sensitivity/infection. Long term use of tetracyclines can cause damage to teeth and bones of infants. Metronidazole—avoid single high doses; lower/conventional doses can be used with caution
Antifungals			
Miconazole Clotrimazole Fluconazole	Miconazole cream applied to the nipples of a lactating mother with proved nipple thrush sparingly, after feeds, is recommended. Clotrimazole may be used to treat maternal vaginal thrush. Fluconazole may be used to treat vaginal thrush as a single oral dose and/or thrush on the nipple	Miconazole oral gel is more effective than nystatin in treating oral thrush (unlicensed use in babies <12 weeks due to risk of method of application). Absorption of clotrimazole is negligible, and it is not contraindicated during lactation. Fluconazole is not contra-indicated in lactation, but half-life is prolonged in a neonate and may lead to stomach pains and vomiting in the baby	Use topicals as initial treatment. Confirm diagnosis based on assessment by infant feeding specialist and culture. A swab may differentiate between bacterial and fungal infection, which produce similar symptoms. Fluconazole should only be prescribed after confirmation of diagnosis by a qualified lactation expert who has assessed effective positioning and attachment.[69] Oral treatment (with fluconazole) should be accompanied by topical application of miconazole cream applied sparingly after each feed and miconazole oral gel applied gently to the oral mucosa of the baby 4 times a day (outside of licence under 4 months)
Antivirals			
Aciclovir	Significant transfer into breast milk but not known to be harmful even at the highest dose 800 mg 5 times a day	No reported harm to infants. Amount in breast milk even with significant transfer is a fraction of the neonatal dose and low bioavailability to infant	Topical aciclovir (in gel or water miscible cream) is safe. Benefits of oral aciclovir for maternal health where indicated outweighs any risk to infant
Antidepressants			
Sertraline Citalopram Amitriptyline	Sertraline is the antidepressant of choice when breastfeeding. Citalopram is also widely used during lactation. Amitriptyline is secreted into milk in small amounts, as it is extensively plasma protein bound	Highly plasma protein bound and low relative infant dose. Sertraline is safe to use with a meta-analysis showing no adverse effects and normal development noted in infants.[70] Citalopram—no evidence of adverse events or effect on long term development. Amitriptyline—maternal drowsiness should be considered as many mothers choose to co-sleep with their babies to facilitate feeds overnight	Under recognition and under treatment of depression cause significant harm to the mother, infant, and wider family. Risks of not treating depression are likely to outweigh risks of treating with sertraline in most cases. Fluoxetine has longer half-life than other selective serotonin reuptake inhibitors. Some reports of colic but also drowsiness in breastfed babies. Dosulepin and imipramine despite risk profile can be considered when alternatives required.
Contraception			
Progesterone only Depot progesterone injection/implant Coil—progesterone	Progesterone only—overall hormone levels in milk have been found to be low. A meta-analysis showed that early compared with delayed insertion of a progesterone coil (LNG-IUS) did not have negative effects on continuation of breastfeeding[71]	Fair quality evidence shows that progesterone-containing contraception has no adverse effects on infant growth and development	Faculty of Sexual and Reproductive Healthcare guidelines suggest lowest risk is with copper coil or progesterone coil (LNG-IUS) within 48 hours of delivery, including after caesarean section, or after 4 weeks postpartum.[72] Combined oral contraception—the benefits after 6 weeks should be weighed against the risk of a drop in lactation before 6 months post partum

Table 1 | Examples of medications commonly prescribed in the postnatal period and during breastfeeding[64] *(Continued)*

Medications	Summary	Safety in infants	Considerations
Galactagogues			
Domperidone Metoclopramide	Domperidone has superior side effect profile, efficacy, and limited passage into milk compared with metoclopramide	Avoid when mother or baby have cardiac issues.[73] Use to increase milk supply is outside of licence application	**Only consider galactagogues after a full feeding assessment by an infant feeding specialist, ensuring optimal positioning, attachment and observation of feeding**

Supplementary sources of information should be used when making therapeutic decisions; for example, the Drugs and Lactation Database (LactMed)[74] or the UK Drugs in Lactation Advisory Service (UKDILAS)[75] as the British National Formulary does not contain quantitative data on which to base individual decisions. NICE PH11.

In the UK The Breastfeeding Network has a specialist Drugs in Breast milk service run by pharmacists druginformation@breastfeedingnetwork.org.uk

Most medications are unlicensed for breastfeeding women, which has led to reticence in prescribing, but usually good data are available to assess risk and benefits for both mothers and babies and to prescribe appropriately. In general, drugs licensed for use in infants do not pose a hazard. Neonates (especially premature infants) are at greater risk than babies over 28 days of age from exposure to drugs via breast milk, because of immature excretory functions and the consequent risk of drug accumulation. Discuss with women the likely benefits of medication, as well as the possible risks—including the risk of early cessation of breastfeeding—for the health of both the mother and her infant, and share decision making. Keep in mind that some women breastfeed beyond infancy.

Helpful online resources to consult when prescribing[75-77] include "Don't say stop—look it up," a joint campaign to support GP and primary care staff when prescribing[78] (see box 'Further educational resources and sources of support'). Seek advice from specialist pharmacists when in doubt and consider local prescribing guidance. Consider breastfeeding support from an infant feeding specialist and/or donor milk to support medication choices that necessitate temporary cessation of breastfeeding, with a view to re-establishing feeding as soon as feasible if ongoing lactation is desired by the woman.

Support for breastfeeding women during the covid-19 pandemic

Avoiding separation of mothers and babies remains essential for supporting breastfeeding during the pandemic.[79] No evidence suggests that SARS-CoV-2 is transmitted through breast milk,[80] but respiratory hygiene and masks are recommended for breastfeeding mothers who have covid-19.[81] Covid-19 vaccination is **not** contra-indicated and is to be encouraged in breastfeeding women.[82 83] A growing number of prospective trials with small numbers of participants has found antibodies to SARS-CoV-2 in the breast milk of lactating women vaccinated against the virus. The extent to which these antibodies protect infants from infection is, however, unknown.

Remote consultation may be a barrier to establishing rapport when assessing breastfeeding and providing support. As online interactions become more commonplace, it has become possible to provide most kinds of support online, for example demonstrating aspects of effective feeding using a doll. Women may struggle, however, to feel supported on issues such as latch and tongue tie with remotely provided care.[84] Continuity of care with the same provider facilitates remote consultations and helps to build rapport. A 2021 systematic review found that although remotely provided support can be effective, particularly to sustain exclusive breastfeeding, it should complement rather than replace face-to-face support. Consider providing a follow-up face-to-face assessment,[85] especially when assessing infants when the concern is excessive crying, to exclude potential serious causes such as underlying illness.

Case scenario conclusion

Ellie had a full feeding assessment by her health visitor and online support which helped her learn how to improve her baby's attachment and reduce the pain at the start of feeds. She reported that she was now able to breastfeed Kyle more comfortably without any dietary restrictions. She was feeling more confident breastfeeding and Kyle was much more settled, gaining weight well, and following his growth centile. Ellie received ongoing support and treatment with sertraline from her GP for low mood.

Education into practice

- Are you familiar with sources of support for breastfeeding women in your local area?
- Think about the last time you talked with a breastfeeding woman—to what extent do you think she felt able to share her concerns and any decisions? How might you alter your questions next time?
- Do you know how many women who present at your practice with breastfeeding concerns are referred for lactation assessment and support?

Further educational resources and sources of support

- GP Infant Feeding Network GPIFN (UK) A national network of primary care professionals and supportive colleagues: https://gpifn.org.uk/
- National Breastfeeding Helpline (0300 100 0212) is open every day of the year from 9.30 am to 9.30 pm. Support is also available in Welsh and Polish on the same number and in Bengali and Sylheti on 0300 456 2421, and via ContactSCOTLAND for people who have hearing or speech impairments. There is also a webchat function and support via 121 messenger on Facebook and Instagram: http://www.national-breastfeedinghelpline.org.uk/
- Human Milk Foundation, a charity that can provide donor milk: https://humanmilkfoundation.org/
- UK Drugs in Lactation Advisory Service: https://www.sps.nhs.uk/articles/ukdilas/
- The Breastfeeding Network. Drugs in breast milk information service: https://m.facebook.com/BfNDrugsinBreastmilkinformation/
- https://www.breastfeedingnetwork.org.uk/breastfeeding-ad-perinatal-mental-health/
- https://www.breastfeedingnetwork.org.uk/drugs-factsheets/
- UNICEF BFI guidance sheets to help health professionals to provide care remotely: https://www.unicef.org.uk/babyfriendly/guidance-documents/
- UNICEF e-learning for GPs: https://www.unicef.org.uk/babyfriendly/training/e-learning/e-learning-for-gps/

Information resources for breastfeeding women

- UNICEF Baby Friendly. Hand expression: https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/breastfeeding-resources/hand-expression-video/
- Attaching your baby at the breast: https://globalhealthmedia.org/portfolio-items/attaching-your-baby-at-the-breast/
- Positions for breastfeeding: https://globalhealthmedia.org/portfolio-items/breastfeeding-positions/
- What to do about breast pain: https://globalhealthmedia.org/portfolio-items/what-to-do-about-breast-pain/
- Is your baby getting enough milk? https://globalhealthmedia.org/portfolio-items/is-your-baby-getting-enough-milk/
- Off to the best start leaflet: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2010/11/otbs_leaflet.pdf
- National Childbirth Trust. Newborn baby poo in nappies: what to expect. https://www.nct.org.uk/baby-toddler/nappies-and-poo/newborn-baby-poo-nappies-what-expect

How this article was made

This article was created using expertise and clinical guidelines and searches of Ovid Medline, CINAHL, Cochrane Database of Systematic Reviews, Academy of Breastfeeding Medicine, and clinical guidelines. GPs were consulted using a survey to ask what was important to them.

How breastfeeding women were involved in the creation of this article

Women and breastfeeding peer supporters were asked by a Breastfeeding Network (BfN) peer supporter what aspects of breastfeeding support they thought it was most important for primary care professionals to know. The responses were used to inform the focus of the article.

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1 World Health Organization. The optimal duration of exclusive breastfeeding. Report of an expert consultation. Geneva: World Health Organization, March 28-30, 2001.
2 Kramer MS, Kakuma R. Optimal duration of exclusive breastfeeding. *Cochrane Database Syst Rev* 2012;8:CD003517.pmid: 22895934
3 Gila-Diaz A, Arribas SM, Algara A, etal. A review of bioactive factors in human breastmilk: A focus on prematurity. *Nutrients* 2019;11:1307. doi: 10.3390/nu11061307 pmid: 31185620
4 Horta B, Victora C. *Short-term effects of breastfeeding: a systematic review on the benefits of breastfeeding on diarrhoea and pneumonia mortality.* World Health Organization, 2013.
5 Frank NM, Lynch KF, Uusitalo U, etalTEDDY Study Group. The relationship between breastfeeding and reported respiratory and gastrointestinal infection rates in young children. *BMC Pediatr* 2019;19:339. doi: 10.1186/s12887-019-1693-2 pmid: 31533753
6 Bowatte G, Tham R, Allen KJ, etal. Breastfeeding and childhood acute otitis media: a systematic review and meta-analysis. *Acta Paediatr* 2015;104:85-95. doi: 10.1111/apa.13151 pmid: 26265016
7 Horta BL, Loret de Mola C, Victora CG. Long-term consequences of breastfeeding on cholesterol, obesity, systolic blood pressure and type 2 diabetes: a systematic review and meta-analysis. *Acta Paediatr* 2015;104:30-7. doi: 10.1111/apa.13133 pmid: 26192560
8 Stewart CJ, Ajami NJ, O'Brien JL, etal. Temporal development of the gut microbiome in early childhood from the TEDDY study. *Nature* 2018;562:583-8. doi: 10.1038/s41586-018-0617-x pmid: 30356187
9 Cryan JF, Dinan TG. Mind-altering microorganisms: the impact of the gut microbiota on brain and behaviour. *Nat Rev Neurosci* 2012;13:701-12. doi: 10.1038/nrn3346 pmid: 22968153
10 Victora CG, Bahl R, Barros AJD, etalLancet Breastfeeding Series Group. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet* 2016;387:475-90. doi: 10.1016/S0140-6736(15)01024-7 pmid: 26869575
11 UNICEF. Infant and young child feeding, 2019. https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/
12 McAndrew F, Thompson J, Fellows L, Large A, Speed M, Renfrew M. *Infant Feeding Survey 2010.* Health and Social Care Information Centre, 2012.
13 Harrison S, Alderdice F, Henderson J, Quigley M. *You and Your Baby: A national survey of health and care.* National Perinatal Epidemiology Unit, University of Oxford, 2020.
14 McFadden A, Gavine A, Renfrew MJ, etal. Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database Syst Rev* 2017;2:CD001141. doi: 10.1002/14651858.CD001141.pub5 pmid: 28244064
15 Marshall JL, Godfrey M, Renfrew MJ. Being a 'good mother': managing breastfeeding and merging identities. *Soc Sci Med* 2007;65:2147-59. doi: 10.1016/j.socscimed.2007.06.015 pmid: 17681409
16 Odeniyi AO, Embleton N, Ngongalah L, Akor W, Rankin J. Breastfeeding beliefs and experiences of African immigrant mothers in high-income countries: A systematic review. *Matern Child Nutr* 2020;16:e12970. doi: 10.1111/mcn.12970 pmid: 32141195
17 Scime NV, Patten SB, Tough SC, Chaput KH. Maternal chronic disease and breastfeeding outcomes: a Canadian population-based study. *J Matern Fetal Neonatal Med* 2020;24:1-8. doi: 10.1080/14767058.2020.1743664 pmid: 32208754
18 World Health Organization. *International code of marketing of breast-milk substitutes.* World Health Organization, 1981.
19 Enabling breastfeeding for mothers and babies. *Cochrane Special collection*: Cochrane, 2017. https://www.cochrane.org/news/cochrane-library-special-collection-enabling-breastfeeding-mothers-and-babies
20 Save the Children. Don't push it: why the formula milk industry must clean up its act. London: Save the Children, 2018 https://www.savethechildren.org.uk/content/dam/gb/reports/health/dont-push-it.pdf.
21 Piwoz EG, Huffman SL. The impact of marketing of breast-milk substitutes on WHO-recommended breastfeeding practices. *Food Nutr Bull* 2015;36:373-86. doi: 10.1177/0379572115602174 pmid: 26314734
22 Šumilo D, Kurinczuk JJ, Redshaw ME, Gray R. Prevalence and impact of disability in women who had recently given birth in the UK. *BMC Pregnancy Childbirth* 2012;12:31. doi: 10.1186/1471-2393-12-31 pmid: 22540347
23 Rayfield S, Oakley L, Quigley MA. Association between breastfeeding support and breastfeeding rates in the UK: a comparison of late preterm and term infants. *BMJ Open* 2015;5:e009144. doi: 10.1136/bmjopen-2015-009144 pmid: 26567257
24 Schmied V, Beake S, Sheehan A, McCourt C, Dykes F. Women's perceptions and experiences of breastfeeding support: a metasynthesis. *Birth* 2011;38:49-60. doi: 10.1111/j.1523-536X.2010.00446.x pmid: 21332775
25 Moore ER, Bergman N, Anderson GC, Medley N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev* 2016;11:CD003519. doi: 10.1002/14651858.CD003519.pub4 pmid: 27885658
26 Royal College of General Practitioners. Perinatal Mental Health Toolkit. 2021. https://www.rcgp.org.uk/clinical-and-research/resources/toolkits/perinatal-mental-health-toolkit.aspx.
27 Gatti L. Maternal perceptions of insufficient milk supply in breastfeeding. *J Nurs Scholarsh* 2008;40:355-63. doi: 10.1111/j.1547-5069.2008.00234.x pmid: 19094151
28 Galipeau R, Dumas L, Lepage M. Perception of not having enough milk and actual milk production of first-time breastfeeding mothers: is there a difference? *Breastfeed Med* 2017;12:210-7. doi: 10.1089/bfm.2016.0183 pmid: 28326807
29 Brockway M, Benzies K, Hayden KA. Interventions to improve breastfeeding self-efficacy and resultant breastfeeding rates: a systematic review and meta-analysis. *J Hum Lact* 2017;33:486-99. doi: 10.1177/0890334417707957 pmid: 28644764
30 Prior E, Santhakumaran S, Gale C, Philipps LH, Modi N, Hyde MJ. Breastfeeding after cesarean delivery: a systematic review and meta-analysis of world literature. *Am J Clin Nutr* 2012;95:1113-35. doi: 10.3945/ajcn.111.030254 pmid: 22456657
31 De Bortoli J, Amir LH. Is onset of lactation delayed in women with diabetes in pregnancy? A systematic review. *Diabet Med* 2016;33:17-24. doi: 10.1111/dme.12846 pmid: 26113051
32 Chang Y-S, Glaria AA, Davie P, Beake S, Bick D. Breastfeeding experiences and support for women who are overweight or obese: A mixed-methods systematic review. *Matern Child Nutr* 2020;16:e12865. doi: 10.1111/mcn.12865 pmid: 31240826
33 Hobbs AJ, Mannion CA, McDonald SW, Brockway M, Tough SC. The impact of caesarean section on breastfeeding initiation, duration and difficulties in the first four months postpartum. *BMC Pregnancy Childbirth* 2016;16:90. doi: 10.1186/s12884-016-0876-1 pmid: 27118118
34 Furuta M, Sandall J, Cooper D, Bick D. Severe maternal morbidity and breastfeeding outcomes in the early post-natal period: a prospective cohort study from one English maternity unit. *Matern Child Nutr* 2016;12:808-25. doi: 10.1111/mcn.12176 pmid: 25720327
35 Kam RL, Amir LH, Cullinane M. Is there an association between breast hypoplasia and breastfeeding outcomes? A systematic review. *Breastfeed Med* 2021;16:594-602. doi: 10.1089/bfm.2021.0032 pmid: 33891493
36 Baby Friendly UNICEF. Breastfeeding resources https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/breastfeeding-resources/.
37 Webb AN, Hao W, Hong P. The effect of tongue-tie division on breastfeeding and speech articulation: a systematic review. *Int J Pediatr Otorhinolaryngol* 2013;77:635-46. doi: 10.1016/j.ijporl.2013.03.008 pmid: 23537928
38 Peek RJ, Wilson N, Cronin-Preece E. Growth concerns in the early weeks of life. *BMJ* 2020;370:m3533. doi: 10.1136/bmj.m3533 pmid: 32958514
39 UNICEF. *Off to the best start.* London: Start4Life. 2015. https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2010/11/otbs_leaflet.pdf.

40 Galipeau R, Baillot A, Trottier A, Lemire L. Effectiveness of interventions on breastfeeding self-efficacy and perceived insufficient milk supply: A systematic review and meta-analysis. *Matern Child Nutr* 2018;14:e12607. doi: 10.1111/mcn.12607 pmid: 29655287

41 Uvnäs-Moberg K, Handlin L, Petersson M. Self-soothing behaviors with particular reference to oxytocin release induced by non-noxious sensory stimulation. *Front Psychol* 2015;5:1529. doi: 10.3389/fpsyg.2014.01529 pmid: 25628581

42 Kent JC, Ashton E, Hardwick CM, etal. Nipple Pain in Breastfeeding Mothers: Incidence, Causes and Treatments. *Int J Environ Res Public Health* 2015;12:12247-63. doi: 10.3390/ijerph121012247 pmid: 26426034

43 McClellan HL, Hepworth AR, Garbin CP, etal. Nipple pain during breastfeeding with or without visible trauma. *J Hum Lact* 2012;28:511-21. doi: 10.1177/0890334412444464 pmid: 22689707

44 Buck ML, Amir LH, Cullinane M, Donath SMCASTLE Study Team. Nipple pain, damage, and vasospasm in the first 8 weeks postpartum. *Breastfeed Med* 2014;9:56-62. doi: 10.1089/bfm.2013.0106 pmid: 24380583

45 Amir LH, Donath SM, Garland SM, etal. Does Candida and/or Staphylococcus play a role in nipple and breast pain in lactation? A cohort study in Melbourne, Australia. *BMJ Open* 2013;3:002351. doi: 10.1136/bmjopen-2012-002351 pmid: 23474794

46 Amir LH, Forster DA, Lumley J, McLachlan H. A descriptive study of mastitis in Australian breastfeeding women: incidence and determinants. *BMC Public Health* 2007;7:62. doi: 10.1186/1471-2458-7-62 pmid: 17456243

47 Dennis CL, Jackson K, Watson J. Interventions for treating painful nipples among breastfeeding women. *Cochrane Database Syst Rev* 2014;12:CD007366. doi: 10.1002/14651858.CD007366.pub2 pmid: 25506813

48 Amir LH, Baeza C, Charlamb JR, Jones W. Identifying the cause of breast and nipple pain during lactation. *BMJ* 2021;374:n1628. doi: 10.1136/bmj.n1628 pmid: 34257068

49 Amir LHAcademy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #4: Mastitis, revised March 2014. *Breastfeed Med* 2014;9:239-43. doi: 10.1089/bfm.2014.9984 pmid: 24911394

50 Crepinsek MA, Taylor EA, Michener K, Stewart F. Interventions for preventing mastitis after childbirth. *Cochrane Database Syst Rev* 2020;9:CD007239.pmid: 32987448

51 World Health Organization. *Mastitis: causes and management.* World Health Organization, 2000.

52 Jahanfar S, Ng CJ, Teng CL. Antibiotics for mastitis in breastfeeding women. *Cochrane Database Syst Rev* 2013;2:CD005458.pmid: 23450563

53 National Institute for Health and Care Excellence. Mastitis and breast abscess. Clinical Knowledge Summaries. NICE, 2021. https://cks.nice.org.uk/topics/mastitis-breast-abscess/.

54 Royal College of Obstetricians and Gynaecologists. Bacterial Sepsis following Pregnancy. Green-top Guideline No. 64b, 2012.

55 Lucassen PL, Assendelft WJ, van Eijk JT, Gubbels JW, Douwes AC, van Geldrop WJ. Systematic review of the occurrence of infantile colic in the community. *Arch Dis Child* 2001;84:398-403. doi: 10.1136/adc.84.5.398 pmid: 11316682

56 Zeevenhooven J, Koppen IJN, Benninga MA. The new Rome IV Criteria for functional gastrointestinal disorders in infants and toddlers. *Pediatr Gastroenterol Hepatol Nutr* 2017;20:1-13. doi: 10.5223/pghn.2017.20.1.1 pmid: 28401050

57 National Institute for Health and Care Excellence. Gastro-oesophageal reflux disease in children and young people: diagnosis and management (NG1) https://www.nice.org.uk/guidance/ng1: National Institute for Health and Care Excellence, 2015. Updated 2019.

58 O'Reilly D, Conway R, O'Connor L, Fitzpatrick P. Use of anti-reflux medications in infants under 1 year of age: a retrospective drug utilization study using national prescription reimbursement data. *Eur J Pediatr* 2020;179:1963-7. doi: 10.1007/s00431-020-03837-8 pmid: 33051717

59 National Institute for Health and Care Excellence. GORD in children: How should I assess a child with suspected gastro-oesophageal reflux disease? Clinical Knowledge Summaries: NICE, 2020.

60 Vandenplas Y, Koletzko S, Isolauri E, etal. Guidelines for the diagnosis and management of cow's milk protein allergy in infants. *Arch Dis Child* 2007;92:902-8. doi: 10.1136/adc.2006.110999 pmid: 17895338

61 National Institute for Health and Care Excellence. Food allergy in children and young people: Diagnosis and assessment of food allergy in children and young people in primary care and community settings. London: NICE 2011. Updated 2018.

62 Munblit D, Perkin MR, Palmer DJ, Allen KJ, Boyle RJ. Assessment of evidence about common infant symptoms and cow's milk allergy. *JAMA Pediatr* 2020;174:599-608. doi: 10.1001/jamapediatrics.2020.0153 pmid: 32282040

63 National Institute for Health and Care Excellence. Cow's milk allergy in children. Clinical Knowledge Summaries: NICE, 2021.

64 Mathew JL. Effect of maternal antibiotics on breast feeding infants. *Postgrad Med J* 2004;80:196-200. doi: 10.1136/pgmj.2003.011973 pmid: 15082839

65 Pinheiro E, Bogen DL, Hoxha D, Ciolino JD, Wisner KL. Sertraline and breastfeeding: review and meta-analysis. *Arch Womens Ment Health* 2015;18:139-46. doi: 10.1007/s00737-015-0499-y pmid: 25589155

66 Abdelhakim AM, Sunoqrot M, Amin AH, Nabil H, Raslan AN, Samy A. The effect of early vs. delayed postpartum insertion of the LNG-IUS on breastfeeding continuation: a systematic review and meta-analysis of randomised controlled trials. *Eur J Contracept Reprod Health Care* 2019;24:327-36. doi: 10.1080/13625187.2019.1665175 pmid: 31517549

67 Faculty of Sexual & Reproductive Healthcare. *UK medical eligibility criteria for contraceptive use. 2016.* Amended, 2019.

68 Domperidone: risks of cardiac side effects. *Drug Safety Update.* 2014. https://www.gov.uk/drug-safety-update/domperidone-risks-of-cardiac-side-effects

69 Drugs and Lactation Database (LactMed). 2021. https://www.ncbi.nlm.nih.gov/books/NBK501922/.

70 Kearney L. UKDILAS: General principles for medicine use during breastfeeding. Midlands and East Medicines Advice Service (Midlands site) & UK Drugs in Lactation Advisory Service. 2020. https://www.sps.nhs.uk/articles/ukdilas-general-principles-for-medicine-use-during-breastfeeding/

71 UK Medicines Information. Medicines in lactation specialist advisory service. https://www.ukmi.nhs.uk/activities/specialistServices/default.asp?pageRef=2.

72 Breastfeeding Network. Drugs Factsheets. 2019. https://www.breastfeedingnetwork.org.uk/drugs-factsheets/

73 Hospital Infant Feeding Network. Don't say stop look it up. 2019. https://www.hifn.org/dontsaystop

74 National Institute for Health and Care Excellence. Breastfeeding problems. Clinical Knowledge Summaries. 2017. https://cks.nice.org.uk/topics/breastfeeding-problems/

75 Ito S. Opioids in breast milk: pharmacokinetic principles and clinical implications. *J Clin Pharmacol* 2018;58(Suppl 10):S151-63. doi: 10.1002/jcph.1113 pmid: 30248201

76 Jones W. *Breastfeeding and medication.* 2nd ed. Routledge, 2018doi: 10.4324/9781315098739.

77 Kearney L. Which weak opioids can be used during breastfeeding? Considering the evidence for codeine, dihydrocodeine, and tramadol. 2018. https://www.sps.nhs.uk/articles/which-weak-opioids-can-be-used-during-breastfeeding/.

78 Medicines and Healthcare products Regulatory Agency. Codeine for analgesia: restricted use in children because of reports of morphine toxicity. Drug Safety Update2013;6:S1.

79 Renfrew MJ, Cheyne H, Craig J, etal. Sustaining quality midwifery care in a pandemic and beyond. *Midwifery* 2020;88:102759. doi: 10.1016/j.midw.2020.102759 pmid: 32485502

80 Lackey KA, Pace RM, Williams JE, et al. SARS-CoV-2 and human milk: What is the evidence? *Maternal Child Nutr* 2020;16:e13032-n/a.

81 Centers for Disease Control and Prevention. Care for breastfeeding people: interim guidance on breastfeeding and breast milk feeds in the context of covid-19. 2021. https://www.cdc.gov/coronavirus/2019-ncov/hcp/care-for-breastfeeding-women.html.

82 Public Health England. Coronavirus (covid-19) vaccination information for public health professionals. COVID-19: the green book, chapter 14a. 2021. https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a

83 American College of Obstetricians and Gynaecologists. Covid-19 vaccination considerations for obstetric-gynecologic care, 2020. https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/12/covid-19-vaccination-considerations-for-obstetric-gynecologic-care?utm_source=redirect&utm_medium=web&utm_campaign=int

84 Brown A, Shenker N. Experiences of breastfeeding during COVID-19: Lessons for future practical and emotional support. *Matern Child Nutr* 2021;17:e13088. doi: 10.1111/mcn.13088 pmid: 32969184

85 Gavine A, Marshall J, Buchanan P, etal. Remote provision of breastfeeding support and education: systematic review and meta-analysis. *Matern Child Nutr* (In press).