NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Centre for Clinical Practice – Surveillance Programme

Recommendation for Guidance Executive

Clinical guideline

CG37: Postnatal care - Routine postnatal care of women and their babies

Publication date

July 2006, Clinical Guideline Addendum 37.1 published December 2014

Previous review dates

3-year review: 2009 (no update)

5-year review: 2011 (no update)

Exceptional review: 2013 (the section of the guideline on reducing the risk of sudden infant death syndrome (SIDS) should be updated)

Surveillance report for GE (post consultation)

January 2015

Surveillance recommendation

GE is asked to consider the proposal to update the section of the guideline on genital tract sepsis within the sepsis guideline that is in development (anticipated publication in July 2016) and that once this is done, the recommendations in CG37 relating to postpartum sepsis be stood down and to cross refer to the new sepsis guideline. In addition, it is proposed that the guideline recommendation(s) on immunisation be replaced with a cross reference to the Public Health England/Department of Health guidance, Immunisation against infectious disease (2013), popularly known as the Green Book.

The discrete update on reducing the risk of sudden infant death syndrome (SIDS) agreed by GE in July 2013 has now been published http://www.nice.org.uk/guidance/cg37/evidence/cg37-postnatal-care-full-guideline-addendum2

Key findings

	Potential impact on guidance	
	Yes	**No**
Evidence identified from literature search		✓
Feedback from Guideline Development Group	✓	
Feedback from stakeholders during consultation	✓	
Anti-discrimination and equalities considerations		✓

No update*	CGUT update	Standard update	Transfer to static list	Change review cycle
✓				

*the update of the genital tract sepsis section of the guideline is to be taken forward through the development of the sepsis guideline (anticipated publication date July 2016)

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Centre for Clinical Practice – Surveillance Programme

8-year surveillance review of CG37: Postnatal care - Routine postnatal care of women and their babies

Recommendation for Guidance Executive

Background information

Guideline issue date: July 2006

3-year review: 2009 (no update)

5-year review: 2011 (no update)

Exceptional review: 2013 (the section of the guideline on reducing the risk of sudden infant death syndrome (SIDS) should be updated)

8-year review: 2014

NCC: National Clinical Guidelines Centre (Formerly NCC for Primary Care)

Findings of the current (8-year) surveillance review

1. For the 8-year surveillance review, a search to identify randomised controlled trials and systematic reviews was carried out for articles published between 1 September 2011 (the end of the search period for the 2011 surveillance review) and 6 March 2014 and relevant abstracts were assessed.
2. Clinical feedback was obtained from members of the GDG through a questionnaire survey; five responses were received with one respondent suggesting an update and the others either stated no or gave no specific opinion.
3. No new research evidence was identified for any section of the guideline that may impact on current recommendations or research recommendations.

Main conclusions of previous surveillance reviews

4. CG37 was previously reviewed for update at its 3- and 5-year points in 2009 and 2011 respectively; and also underwent an exceptional review in 2013. No new evidence was identified at the 3- and 5-year review points that indicated a significant change in clinical practice and there were no factors that would invalidate or change the direction of guideline recommendations.
5. The exceptional review in 2013 was of the section of the guideline on reducing the risk of SIDS and was carried out following referral from the Department of Health. This surveillance review recommended that the section of the guideline on reducing the risk of SIDS (section 7.8.2 of the full guideline: Reducing the risk of SIDS) should be updated and was signed-off by Guidance Executive as an update topic in July 2013. This discrete update has now been published http://www.nice.org.uk/guidance/cg37/evidence/cg37-postnatal-care-full-guideline-addendum2

Summary of stakeholder feedback

6. Stakeholders were consulted about the following proposal over a two week consultation period:

The guideline CG37: Postnatal care should not be considered for an update at this time

7. In total 16 stakeholders commented on the surveillance review proposal during the two-week consultation period (see Appendix 1).
8. Seven stakeholders disagreed with the review proposal to not update the guideline, six agreed to not update at this time and three stakeholders did not state a definitive position or had no substatntive comments.
9. Comments from the stakeholders who disagreed with the surveillance proposal related to a number of issues, including:
    - the need to include advice relating to breastfeeding support for mothers whose babies are admitted to a neonatal unit, however, as acknowledged by the stakeholder, the guideline is on routine care and this would not constitute “routine postnatal care”.
    - it would be useful to have current evidence available and cited in the guideline, even if the recommendations are not changed, however, we did not identify any new evidence through our searches that is likely to change current guideline recommendations and in the absence of any such evidence, our current process does not involve editorial amendment of existing recommendations or the updating of the evidence base around these recommendations.
    - concerns around postpartum sepsis and lack of basic observations citing the most recent evidence from the UK Confidential Enquiries into Maternal Deaths report (December 2014). Further to our assessment of this new evidence it is proposed that the section of the guideline on genital tract sepsis be updated within the sepsis guideline which is in development (anticipated publication in July 2016) and that once this is done, the recommendations in CG37 relating to postpartum sepsis be stood down to refer to the new sepsis guideline.

- suggestions for editorial amendment of wording of recommendations in the guideline “where the subject, context or supporting information has changed or requires amendment” but current editorial processes are not in place to take this forward.
- inconsistency between the Public Health England/Department of Health guidance, Immunisation against infectious disease (2013), popularly known as the Green Book and the postnatal care guideline recommendation on the timing of MMR vaccination in women who also require the anti-D immunoglobulin injection when both are not given simultaneously - further to this observation and the fact that current vaccination policy is included in the Green Book it is proposed that the recommendation(s) relating to the timing of MMR vaccination in the guideline be replaced with a cross reference to the Green Book, but without doing an update.

10. A number of stakeholders also commented on areas excluded from the original scope, including the following:
    - there appears to be no mention of the care of neonates with neonatal jaundice in the guideline, however, neonatal jaundice is the subject of NICE clinical guideline 98 (CG98 Neonatal jaundice).There is a partial update currently scheduled using the Standing Committee for Updates via the Clinical Guidelines Update Team http://www.nice.org.uk/guidance/cg98
    - the need to give Vitamin D and Omega-3 fish oil supplements to postnatal mothers and provided references, however the Vitamin D study is an exploratory observational study while the references for omega-3 fish oils are on antenatal supplementation. Hence these would not meet our inclusion criteria for the surveillance review.
    - “the paragraph on contraception is rather short”, however, full details on long acting contraception are covered by NICE Clinical Guideline 30 Long-acting reversible contraception (update) http://www.nice.org.uk/guidance/cg30. NICE does not have plans currently to develop further guidance on contraception.
    - there are no recommendation(s) regarding the management of babies born to hepatitis B infected mothers or for women who missed the recommended pertussis vaccination in pregnancy, however, the Green Book and Public Health England’s Vaccination against pertussis information booklet provided by the consultee, already gives guidance on these issues in quite a lot of detail.

Ongoing trials

11. One ongoing trials was identified. The MAMMiS study is an RCT conducted within a large NHS region in Scotland that aims to test the impact of two physical activity consultations and a 10-week group pram-walking program on physical activity behaviour change. Completion date is not known.

Anti-discrimination and equalities considerations

12. None identified.

Implications for other NICE programmes

13. This guideline relates to a published Quality Standard on postnatal care (QS37)
14. An update of the genital tract sepsis section of the guideline is unlikely to impact on the Quality Statements of QS37.

Conclusion

15. Following consultation feedback on the proposal not to update the guideline and subsequent consideration of the most recent UK Confidential Enquiries into Maternal Deaths report (December 2014), it is proposed that the section of the guideline on genital tract sepsis be updated within the sepsis guideline which is in development (anticipated publication in July 2016) and that once this is done, the recommendations in CG37 relating to postpartum sepsis be stood down and cross refer to the new sepsis guideline.
16. Regarding the inconsistency between the Public Health England/Department of Health guidance, the Green Book (2013) and the postnatal care guideline recommendation on the timing of MMR vaccination in women who also require the anti-D immunoglobulin injection when both are not given simultaneously, it is proposed that the recommendation(s) relating to this in the postnatal care guideline be replaced with a cross reference to the Green Book, but without doing an update.

Mark Baker – Centre Director
Sarah Willett – Associate Director
Philip Alderson – Consultant Clinical Adviser
Khalid Ashfaq – Technical Analyst

Centre for Clinical Practice
January 2015

Appendix 1 - Consultation comments and response

Surveillance review consultation comments table
9 August 2014 – 12 September 2014

Stakeholder	Do you agree that the guidance should not be updated?	Comments on equality issues or areas excluded from the original scope	Comments If you disagree please explain why	Response
Royal College of Paediatrics and Child Health	Disagree		We think the guideline is reasonable as far as its current scope is concerned. We think NICE should consider including more advice relating to breastfeeding support for mothers whose babies are admitted to a neonatal unit. Although it might be considered that this does not constitute “routine postnatal care”, roughly 10% of babies are admitted for a period to a neonatal unit, and this is a particularly at risk group for breast feeding failure. There is some published evidence on measures which can improve the success of obtaining breast milk by expression, and ultimately establishment of breast feeding in this situation.	Thank you for your comment. However, as acknowledged, this guideline is on routine postnatal care and advice relating to breastfeeding support for mothers whose babies are admitted to a neonatal unit would not constitute “routine postnatal care”
UNICEF UK Baby Friendly Initiative	Agree	Agree / Disagree (please delete as appropriate) Agree NB: Comment re: pg. 13. Three research recommendations – bullet point 3 - Evaluation of the Baby Friendly Initiative. Please note changes have taken place in UNICEF UK Baby Friendly Initiative since the NICE CG37, 2011, review. Whilst these add to current clinical practice and do not detract from the		Thank you for your comment which relates to a research recommendation in the guideline, and for bringing the new UNICEF UK Baby Friendly Initiative standards (2012) to our attention. These new standards incorporate the previous standards as specified in the Ten Steps to Successful Breastfeeding (2006) and the

Stakeholder	Do you agree that the guidance should not be updated?	Comments on equality issues or areas excluded from the original scope	Comments If you disagree please explain why	Response
		current NICE PN guidance it would be more appropriate to recommend research based on the new UNICEF UK Baby Friendly standards, 2012. Background: In 2012, UNICEF UK Baby Friendly Initiative published revised standards for maternity, neonatal, health visiting (or specialist public health nursing) and children's centre (or equivalent early years' community settings) services. These were the result of a large consultation involving clinicians, academics, policy makers and mothers. These new standards incorporate the previous standards as specified in the Ten Steps to Successful Breastfeeding and Seven Point Plan for Sustaining Breastfeeding in the Community, but update and expand them to fully reflect the evidence base. Based on the evidence, the standards provide a framework for health professionals to support mothers to feed and build a close and loving relationship with their infant and aim to deliver the best outcomes for mothers and babies in the UK. .		Seven Point Plan for Sustaining Breastfeeding in the Community (UNICEF UK 2004), both of which are included in the existing guideline. We recognise that the revised standards update and expand previous standards and as acknowledged by you these do not detract from the current NICE Postnatal care guideline. You contend that it would be more appropriate to recommend research based on these standards, however, we did not identify any new evidence through our searches that is likely to change current guideline recommendations and in the absence of any such evidence, our current process does not involve editorial amendment of existing recommendations or research recommendations. We will however keep this information on file for the next surveillance review.

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		For more information on the standards; Guide to the Baby Friendly standards (2012) http://www.unicef.org.uk/BabyFriendly/Resources/Guidance-for-Health-Professionals/Writing-policies-and-guidelines/guide-to-the-baby-friendly-initiative-standards/ and the evidence: UNICEF UK (2013) The evidence and rationale for the UNICEF UK Baby Friendly Initiative Standards. http://www.unicef.org.uk/Documents/Baby_Friendly/Research/baby_friendly_evidence_rationale.pdf		
The Royal College of Midwives	Disagree		The RCM remains very concerned about the current standard of postnatal care when so many surveys continue to identify that the care women are receiving is not meeting their needs. We consider that this justifies an update of the guideline at this time. It has been a considerable time since the guideline underwent a full update. We were surprised and disappointed that the decision was made not to update the guideline in 2012 when we were already concerned about the lack of implementation of current evidence. The update should include a more in depth literature review than has been undertaken here, in order to find the literature covering more than	Thank you for bringning the survey on postnatal care to our attention. Unfortunately, as this is not an RCT or systematic review we are unable to consider it as part of our surveillance review. The aim of guideline surveillance is to identify those trigger studies which may indicate a need to update guideline recommendations which is why the study types considered are limited to RCTs and systematic reviews. We

Stakeholder	Do you agree that the guidance should not be updated?	Comments on equality issues or areas excluded from the original scope	Comments If you disagree please explain why	Response
			high level RCTs and systematic reviews to access the important views of women and their families. We know that It is also useful for practitioners and the public to have current evidence available and cited in the guideline, even if the recommendations are not changed. The opinion of a small group of the original GDG appears to have a strong influence on this recommendation not to update. In order to adequately reflect the needs of current practice, we think that opinion should be sought from a larger stakeholder body, which is likely to need longer than a 2 week timeframe We do not agree with the statement below suggesting that there is no evidence that discussion about the length of stay in the maternity unit is not happening. Our recent surveys Pressure points - the case for better postnatal care have found that that these discussion are not taking place and consequently women are not taking part in the decision making. *Feedback from the GDG indicates that postnatal care has changed since the guideline was written and women now receive shorter hospital/maternity-lead unit stays and fewer postnatal visits. However, no references were provided and no evidence on this was identified through the surveillance review. In addition, the*	also use intelligence from the GDG questionnaire and relevant websites to determine clinical areas within the guideline where new evidence exists that may have an impact on current guideline recommendations in addition to taking consideration of any safety aspects and drug licensing. It is not our aim to conduct a full systematic review of the literature as this will be done whenever an update of a guideline is taken forward. We note, however, that you are aware that discussions about the length of stay in the maternity unit, as recommended by the guideline, may be variable. However, failure to follow the guidance recommendations is a local implementation issue. Through the surveillance review of the postnatal care guideline no new evidence was identified which would change the direction of the recommendations other than those relating to genital tract sepsis. Currently, NICE does

Stakeholder	Do you agree that the guidance should not be updated?	Comments on equality issues or areas excluded from the original scope	Comments If you disagree please explain why	Response
			guideline states that "length of stay in a maternity unit should be discussed between the individual woman and her healthcare professional, taking into account the health and well-being of the woman and her baby and the level of support available following discharge" and there is no evidence identified that this is not happening We agree with the view of this GDG member below that highlights the potential risk for inequalities here - when some women may be finding it difficult to get to postnatal clinics. This concurs with some women's experience identified in our recent **pressure points surveys** when 43% of midwives documented the use of clinics for postnatal care *One GDG member observed that following unit discharge, women in some areas may now be asked to attend a postnatal clinic rather than receive a home contact from their midwife. They suggested that this may lead to inequalities with women who are unwell or unable to get to a clinic potentially missing out on care.*	not update guidance if there is no evidence indicating that recommendations for clinical practice require changes.
NHS England	Disagree		Several reviewers commented on concerns around postpartum sepsis and lack of basic observations. Recent new observational evidence (Acosta CD, Kurinczuk JJ, Lucas DN, Tuffnell DJ, Sellers S, Knight M; United Kingdom Obstetric Surveillance System. Severe maternal sepsis in the UK,2011-2012: a national case-control study. PLoS Med. 2014 Jul 8;11(7):e1001672.) highlights further that maternal sepsis is a problem in the UK. In addition, the most recent evidence from the	Thank you for your comment and for bringing our attention to the most recent evidence from the UK Confidential Enquiries into Maternal Deaths report (December 2014). Further to our assessment of this new evidence it has been agreed that the section of the guideline on genital tract

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			UK Confidential Enquiries into Maternal Deaths (concerning deaths occurring from 2009-2012) is due for publication on December 9th 2014. This will robustly identify whether or not there remain concerns around basic postnatal observations, and it is vitally important that the evidence from this report is considered. We would propose that a decision on review of the guideline be postponed until this evidence is reviewed.	sepsis will be updated within the sepsis guideline which is in development (anticipated publication in July 2016) and that once this is done, the recommendations in CG37 relating to postpartum sepsis will be stood down to refer to the new sepsis guideline
HQT Diagnostics	Disagree	Check for Vitamin D blood level	***Low Vitamin D [25(OH)D] is a significant factor in PostNatal Depression*** Suggest all new mothers are given a loading dose, with advice to continue supplements for at least 6 months or while breast feeding Target blood level - specifically to minimise Depression - is 75 nmol/L In the absence of blood tests, suggest women weighing less than 75 kg are advised to take 100 micrograms (4,000 IU) per day and women over 75kg are given 2 x 100 micrograms (2x 4,000 IU) per day for 6 months References: www.vitamindwiki.com/An+Exploratory+Study+of+Postpartum+Depression+and+Vitamin+D+-+May+2010 www.vitamindwiki.com/Overview+Pregnancy+and+vitamin+D	Thank you for your comment and for providing references. However the Vitamin D study is an exploratory observational study. Hence this study would not meet our inclusion criteria.
		Advise Omega-3 Fish Oil	***Low Omega-3 Index is a significant factor in breastfeeding problems*** Suggest all new mothers are advised to take 10mL of Omega-3 Fish Oil a day while they are breastfeeding. This is of benefit to both the mother and her baby	Thank you for your comment and for providing references. However the study on omega-3 fish oils are on antenatal supplementation. Hence this study would not meet our

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			References: www.expertomega3.com/omega-3-study.asp?id=21 www.hqt-diagnostics.com/Clinicians	inclusion criteria.
Digital Assessment Service, NHS Choices	Agree			Thank you
NCT	Agree			Thank you
Public Health Wales	Agree			Thank you
Department of Health			No substantive comments to make	Thank you
The British Association for Counselling and Psychotherapy	No comment		The British Association for Counselling and Psychotherapy (BACP) welcomes the opportunity to comment on the National Institute for Health and Care Excellence's (NICE) consultation on 'Postnatal care: Routine postnatal care of women and their babies'. With over 40,000 members working to the highest professional standards, BACP is recognised by legislators, national and international organisations and the public as the leading professional body and the voice of counselling and psychotherapy in the UK. BACP recognises that the 8-year surveillance review did not produce anything which would contradict the current guidance. However, BACP would suggest that the research in the 8-year surveillance review is taken into account in NICE's guidance. The guidance focuses on routine care and monitoring of the mother's health after birth, rather than addressing specific interventions, stating that if a women's 'baby blues' persist,	Thank you for your comment. The postnatal care guideline already states that it should be used in conjunction with the guideline on antenatal and postnatal mental health. An update of the antenatal and postnatal mental health guideline was published in December 2014 and psychosocial and psychological interventions for preventing postpartum depression, the title of the Cochrane review by Dennis and Dowswell (2013) is one of the areas that have been covered in the update, which involved in-depth systematic literature reviews of the most up-to-date and robust

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			necessary referrals should be made for assessments. Some areas of the results of the 8-year surveillance review are not mentioned in the current guidance. The surveillance review consultation document refers to Dennis and Dowswell (2013), whose work concluded that psychosocial and psychological interventions reduce the number of women who develop postpartum depression. BACP would like clarification on how the research on interventions in the 8-year surveillance review will impact on the guidance, if NICE's recommendation that an update to the guidance should not be considered at this time. NICE's 'Antenatal and postnatal mental health: Clinical management and service' guidance contains information about specific referral interventions. BACP therefore would recommend that as 'Antenatal and postnatal mental health' is updated, the results from the surveillance review for 'Postnatal care: Routine postnatal care of women and their babies' should be considered. Additionally, BACP recommends that 'Antenatal and postnatal mental health' should be clearly referenced at the end of the 'Mental health and well-being' section of 'Postnatal care: Routine postnatal care of women and their babies' guidance. Bibliography:	evidence for the clinical and cost effectiveness of the interventions and services covered by the scope. All relevant trials within the Cochrane review by Dennis and Dowswell (2013) have been covered in this update.

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			Dennis CL and Dowswell T. (2013) Psychosocial and psychological interventions for preventing postpartum depression. [Review][Update of Cochrane Database Syst Rev. 2004;(4):CD001134; PMID: 15495008]. Cochrane Database of Systematic Reviews 2:CD001134.	
Maternal OCD	Disagree		1. Does the terminology of this guideline match the most recent (going through consultation comments) APMH guideline? They need to be consistent. 2. We are not clear why there is only a focus on 'baby blues' and PND within the review? Is this the case within the full guideline? 3. Has the evidence that has been reviewed included the most recent evidence/research	Thank you for your comments. Determining whether the terminology of the postnatal care is consistent with the guideline on antenatal and postnatal mental health is beyond the scope of this surveillance review. Through the 8-year surveillance review of CG37 we identified 82 studies (RCTs and systematic reviews) relating to all four clinical areas of the guideline. None of these impact on guideline recommendations. The aim of the surveillance review is to identify new evidence (RCTs and systematic reviews) that had become available since the guideline was published or last reviewed and make an assessment about whether the new evidence is likely to impact on the guideline recommendations.

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			reviewed by the APMHGDG? For any health professional and woman there needs to be an awareness that postnatal mental health can take different forms otherwise other types of postnatal mental health problems i.e. OCD/PTSD/Postpartum Psychosis will get missed. This can have an impact on the mother and child from mild to severe. 4. We were unable to open the full guideline however it does not appear to be inclusive of all postnatal mental health problems and it seems to focus most of the attention on postnatal physical problems – they cannot be approached in isolation, physical and mental health has to be approached equally.	An update of the antenatal and postnatal mental health guideline was published in December 2014. This update involved in-depth systematic literature reviews of the most up-to-date and robust evidence for the clinical and cost effectiveness of the interventions and services covered by the scope. The postnatal care guideline should be used in conjunction with the guideline on antenatal and postnatal mental health. The scope of the postnatal care guideline covers routine postnatal care of women and their babies. The guideline on antenatal and postnatal mental health gives advice on on mental health problems during pregnancy and after giving birth. These guidelines should be used in conjunction with each other.
UHL NHS TRUST – Yvonne Benjamin (GDG member)	Disagree	There appears to be no mention of the care of neonates with neonatal jaundice in the guideline, recent research evidence available and changes in midwifery practice which involves the screening at home of neonates with this condition via a	Please see the relevant publications, on neonatal jaundice, CG98 and QS57	Thank you for your comment, however, neonatal jaundice is the subject of NICE clinical guideline 98 (CG98 Neonatal jaundice) and is currently scheduled to be updated using the Standing Committee for

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		Transcutaneous Bilirubinometer, promotes a higher standard of care for neonates, thus preventing the serious condition of kernicterus as a result of lack of recognition of neonatal jaundice which requires in-patient treatment		Updates via the Clinical Guidelines Update Team http://www.nice.org.uk/guidance/cg98. Transcutaneous bilirubinometry will be covered by this update.
Faculty of Sexual and Reproductive Healthcare	Agree	The paragraph on contraception is rather short. We would suggest consideration be given to: • Refering to relevant FSRH CEU guidelines, e.g. UKMEC, Postnatal Sexual and Reproductive Health, other CEU Guidelines. Hyperlinks should also be added in text of electronic version if possible. FSRH Guidelines / Website details should also be mentioned in the section 'Related Guidelines'. • Starting times of post-partum contraception should be mentioned, in particular also starting times for intrauterine methods and DMPA. • Effect on hormonal methods on breastfeeding • Lactationional amenorrhoea, incl. effectiveness of LAM. • Some info on post-partum sterilisation		Thank you for your comment, however, full details on long-acting reversible contraception are covered by NICE Clinical Guideline 30 Long-acting reversible contraception (update) http://www.nice.org.uk/guidance/cg30
Royal College of Nursing			Royal College of Nursing have no comments to submit to inform on the above clinical guideline surveillance review.	Thank you

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UK National Screening Committee (Now part of Public Health England)	Disagree	<u>Neonatal/congenital hepatitis B</u> Within the current guideline there are no recommendation(s) made regarding the management of babies born to hepatitis B infected mothers. Recommendations should be made on the process in which an infant receives a complete course of hepatitis B vaccination and, at age 12 months, receive a blood test for hepatitis B infection (HBsAg), in line with DH's Immunisation against infectious disease: the Green Book, chapter 18: Hepatitis B. Where hepatitis B is covered in other guidelines, the recommendations made do not sufficiently cover this topic. Therefore we suggest that this guideline's scope should be expanded to include this important area. *Supporting comments* -When a women is identified as infected with hepatitis B through antenatal screening, hepatitis B vaccine (and if appropriate, hepatitis B immunoglobulin) should be ordered so that they are available at least 6 weeks prior to the estimated delivery date. -Infants of mothers with hepatitis B (whether they are delivered in hospital	We have also identified areas in the current list of recommendations where the subject, context or supporting information has changed or requires amendment. *1.2.60 Anti-D immunoglobulin should be offered to every non-sensitised Rh-D-negative woman within 72 hours following the delivery of an RhD-positive baby.* *1.2.61 Women found to be sero-negative on antenatal screening for rubella should be offered an MMR (measles, mumps, rubella) vaccination following birth and before discharge from the maternity unit if they are in hospital.* *1.2.62 MMR vaccine may be given with anti-D (Rh0) immunoglobulin injection provided that separate syringes are used and the products are administered into different limbs. If not given simultaneously, MMR should be given 3 months after anti-D (Rh0) immunoglobulin.* **UKNSC comment**: There should be an agreed mechanism to inform the woman and primary care of the importance and need to administer the second dose of MMR. Also, the green book does not outline that MMR should be deferred for anti-D. It states "Where rubella protection is required for post-partum women who have received anti-D immunoglobulin, no deferral is necessary as the response to the rubella component is normally adequate (Edgar and Hambling, 1977; Black *et al*., 1983)." Maternal screening **UKNSC comment:** Further detail should be noted	Thank you for highlighting these issues. Regarding the inconsistency between the Public Health England/Department of Health guidance 'The Green Book' (2013) and the postnatal care guideline recommendation on the timing of MMR vaccination in women who also require the anti-D immunoglobulin injection when both are not given simultaneously has been agreed that the recommendation(s) relating to this in the postnatal care guideline will be replaced with a cross reference to the Green Book, but without doing an update. The other areas you have highlighted would not be sufficient reason for us to update CG37 whilst other national guidance for the NHS already exists in these areas. We do not have mechanisms to simply signpost to other guidance outside of an evidence-driven update of the guidance, therefore, we would have to wait until the next surveillance time point to do

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		or at home) should receive the first vaccine dose of hepatitis B vaccine, and if the mother is highly infectious, hepatitis B immunoglobulin, within 24 hours of birth. -Where an unbooked mother presents in labour, an urgent HBsAg test should be performed to ensure that vaccine can be given to babies born to positive mothers within 24 hours of birth. -There should be locally commissioned services with coordination between primary and secondary care to ensure that the recommended vaccination course (0,1,2 and 12 months) is completed on schedule. -There should be an agreed mechanism for maternity units to inform the child health records departments (CHRD) as part of the birth notification process, of all babies born to hepatitis B infected mothers, and, if the first dose of vaccine (and hepatitis B immunoglobulin, if indicated) was administered. -If subsequent hepatitis B vaccine doses are given to the infant in NHS acute trusts, there should be an agreed mechanism for the Acute Trust to inform CHRDs and the child's GP	for women who have not been screened before delivery as described in the UKNSC recommendation below [this is also applicable to the intrapartum care guideline]:. Priority should be given to hepatitis B, HIV and syphilis. The approach to offering the tests should be based on a case by case assessment. Considerations should include the stage of labour and risk factors specific to these infectious diseases. For HIV refer to the British HIV Association guideline: (http://www.bhiva.org/PregnantWomen2008.aspx) For hepatitis B refer to the DH Green Book: (www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_108820.pdf) Point of care testing should not be used for routine screening purposes. A system should be in place to ensure that tests have been performed and that, where this has not happened, screening for all four conditions is offered prior to discharge from maternity services *1.4.11 A complete examination of the baby should take place within 72 hours of birth. This examination should incorporate a review of parental concerns and the baby's medical history should also be reviewed including: family, maternal, antenatal and perinatal history; fetal, neonatal and infant history including any previously plotted birth-weight and head circumference; whether the baby has passed meconium and urine (and urine stream in a boy).*	this. However, we will note your comments and ensure they are followed up as part of the next surveillance review of CG37. In response to your comments regarding physical examination and screening of the newborn, whilst you have indicated that further guidance is needed, it should be noted that the guidance does not override the responsibility of healthcare professionals and others to make decisions appropriate to the circumstances of each patient, in consultation with the patient and/or their guardian or carer. Similarly, guidance is not designed to be prescriptive, while they assist the practice of healthcare professionals, they do not replace their knowledge and skills.

Stakeholder	Do you agree that the guidance should not be updated?	Comments on equality issues or areas excluded from the original scope	Comments If you disagree please explain why	Response
		that vaccination has been given so that vaccine uptake is monitored. Pertussis vaccination in pregnancy… Although the pertussis vaccination programme is prenatal and this document is about postnatal period, we believe a recommendation should be made advising women who have missed the recommended vaccination in pregnancy that they should ask their GP about getting it as soon as possible, in the two months following delivery. Although this will not provide passive protection to the infant it could potentially protect the mother from pertussis infection and thereby reduce the risk of exposure to her infant. This is in line with PHE's information for health professionals: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338567/PHE_pertussis_in_pregnancy_information_for_HP_2014_doc_V3.pdf We would suggest a recommendation like: If a woman did not receive pertussis containing vaccine during the recommended time period (28-32 weeks) in pregnancy, they should be advised that they can still receive pertussis-containing vaccine (from	*Appropriate recommendations made by the NHS National Screening Committee should also be carried out* **UKNSC comment**: Can it be clarified what guidance should be followed for conditions found in the newborn infant physical examination, specifically for the conditions identified that are not explored further in this or other NICE guidance (for example in cases of undescended testis). *1.4.12 The newborn blood spot test should be offered to parents when their baby is 5–8 days old.* **UKNSC comment**: Can it be made clear in the evidence to recommendation supporting text that screening can be offered up until 1 year (with the exception of cystic fibrosis) for infants that are not born in England. *1.4.14 A hearing screen should be completed before discharge from hospital or by week 4 in the hospital programme or by week 5 in the community programme* **UKNSC comment**: In around 25% of cases screening is undertaken in community sites or in the home setting and would not be subject a hospital discharge process. In such cases the testing will at >10 days of age, this is also in line with the Map of Medicine. Can this be made clear in the evidence to recommendations supporting text. *1.4.15 Parents should be offered routine immunisations for their baby according to the*	

Stakeholder	Do you agree that the guidance should not be updated?	Comments on equality issues or areas excluded from the original scope	Comments If you disagree please explain why	Response
		their GP) in the two months following birth i.e. up until their child receives their first dose of pertussis containing vaccine.	*schedule recommended by the Department of Health* **UKNSC comment**: The citation made for the department health recommendations should be amended to - DH *Immunisation against Infectious Disease – the Green Book* (Chapter 18 on Hepatitis B – updated 2009 and Chapter 28 on rubella susceptibility – updated 2010) http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079917	
Maria Jenkins International Trade Solutions (GDG – lay member)	Agree		Agree that the paper should not be reviewed	Thank you

Appendix 2 - Decision matrix

Surveillance and identification of triggers for updating CG37. The table below provides summaries of the evidence/intelligence that were identified.

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
Planning the content and delivery of care			
<u>Models for delivering care</u> One RCT[1] tested the feasibility of using a 24-hour telephone hotline to address common postnatal concerns among first-time Lebanese mothers. The authors concluded that it is feasible to use a telephone hotline as an intervention in the post-partum period and that algorithms could be developed to provide standardized answers to the most common questions One study[2] described Swedish fathers' views of a recently-introduced, more family-centred postnatal care model. The authors concluded that a true family perspective should be applied in postnatal care with the new parents viewed as a family unit, not as medical cases only, and that staff working in postnatal wards should be given the opportunity to involve fathers in postnatal care One Australian study[3] used action research methods to design strategies	<u>Models for delivering care</u> A systematic review of qualitative studies[14] exploring women's perceptions and experiences of professional or peer breastfeeding support identified strong evidence for adoption of models and arrangements that emphasise relationship-based care by facilitating provision of more continuity of care and individualised care and advice for women; practical help for women who need it; antenatal education; postnatal advice and support; midwifery/nursing education to enhance communication and information provision skills; and support schemes that cater to women from all socio-economic groups.	A GDG member commented that there is some work starting to emerge about fast track discharge after caesarean section and that this would have an impact on hospital/postnatal economics, however, there is very limited work so far, small numbers and not high quality research. One GDG member observed that following unit discharge, women in some areas may now be asked to attend a postnatal clinic rather than receive a home contact from their midwife. They suggested that this may lead to inequalities with women who are unwell or unable to get to a clinic potentially missing out on care. Another GDG member felt that postnatal care has changed since the guideline was written and women now receive shorter hospital/Midwife-lead unit stays, fewer postnatal visits, and often are not seen at home but in a	The new evidence identified is essentially in line with current guideline recommendations that emphasise individualised care which is relationship-, information- and competency-based. Hence this new evidence would not change the direction of current guideline recommendations on models for delivering care. Feedback from the GDG indicates that postnatal care has changed since the guideline was written and women now receive shorter hospital/maternity-lead unit stays and fewer postnatal visits. However, no references were provided and no evidence on this was identified through the surveillance review. In addition, the guideline states that "length of stay in a maternity unit should be discussed between the individual woman and her healthcare professional, taking into account the health and well-being of the woman

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
to improve hospital-based postnatal care. The result was a key strategy called 'One to One Time' which would provide women with an uninterrupted period of time each day with a midwife who was available to listen to their needs and concerns and discuss issues related to their health and that of their baby. Principles of care One study[4] evaluated multifaceted strategies to improve the quality and content of hospital-based postnatal care in a metropolitan Australian hospital. The authors concluded there is the potential for individualised care to impact on outcomes for women. One study[5] evaluated the impact of providing Lebanese women with written educational material, on their satisfaction with care and use of health services postpartum. The authors concluded that in the context of high female literacy, the intervention is effective and requires few resources. Optimal length of stay on the postnatal ward One study[6] identified predictors and outcomes of postpartum mothers'		group setting or a drop-in clinic in the community. However, no references were provided and no evidence on this was identified through the surveillance review.	and her baby and the level of support available following discharge" and there is no evidence identified that this is not happening at the moment.

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
perceptions of their readiness for hospital discharge. The authors concluded that there was a sequential relationship between the quality of discharge teaching, readiness for discharge, post-discharge coping and utilization of family support and health care services. Number of postnatal contacts One RCT[7] evaluated the effect of weekly home visits by health visitors on 'low-risk' first-time families in Northern Ireland, as compared to one planned visit. The authors concluded that weekly postpartum visits to 'low-risk' mothers had variable effects Experiences or views of mothers/fathers/care-givers One report of a survey[8] of first-time mothers' experiences of their postnatal care in the UK was identified. The overarching indication was that the NICE guideline on postnatal care was not being implemented in line with the intended ethos One national survey[9] of women's experiences of their maternity care in England indicated that women rated their postnatal care less positively than other aspects of care.			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
One qualitative study[10] on UK women's experiences and expectations of in-patient postnatal revealed that how staff inter-act with women could make a difference to care as a positive or negative experience and that the units need to consider how individual staff communicate information to women. One cohort study[11] investigated the perceived quality of, and satisfaction with, postpartum care among caregivers and care receivers of a community hospital in Norway. Results showed that although mothers' evaluations of overall care and service did not differ significantly from that of the maternity ward staff. They rated the importance of assistance with child care during the night significantly higher than did the staff. One study[12] investigated Swedish women's experiences of postnatal hospital care. The authors concluded that women are not necessarily either satisfied or dissatisfied with care in a general sense and that in order to provide individualised care, the carer needs to be aware of individual differences			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
One Swedish study[13] focussed on new parents' discontent with postpartum care. A main finding was that the close emotional attachment between parents was not always supported by staff and that the father was treated as an outsider. The authors surmise that midwives should acknowledge that parents, irrespective of gender, should have equal opportunities as parents during postpartum care.			
Maternal health			
<u>Postpartum haemorrhage</u> One study[15] used RCT data to analyse the characteristics of low-risk women in India who experienced postpartum hemorrhage (PPH). Results showed that having fewer than 4 antenatal visits and lack of iron supplementation increased the risk for PPH. Factors in the second stage of labour were also associated. The authors concluded that rural communities should consider ways to increase both primary and secondary prevention of PPH One RCT conducted in India[16] compared visual estimation of postpartum blood loss with estimation using a specifically designed blood collection drape that measured blood	<u>Life threatening conditions - Postpartum haemorrhage</u> *Risk factors for postpartum haemorrhage* A secondary analysis of an RCT[65] concluded that independent risk factors for uterine atony or postpartum haemorrhage requiring treatment include white ethnicity, preeclampsia, and chorioamnionitis. *Prophylactic interventions for postpartum haemorrhage* A Cochrane review[66] concluded that there was insufficient evidence to support the use of prophylactic oral methylergometrine after delivery of the placenta for the prevention of	One GDG member had concerns about maternal postnatal observations. They remarked that women are dying from puerperal sepsis and often presenting late because of a failure to appreciate the fact they are becoming unwell and therefore leading to a delay in treatment. They contended that basic observations such as pulse and temperature and palpating the uterus for tenderness have been abandoned; but no 'trial' or 'study' would show a difference as to whether these checks were of benefit because numbers of adverse events are low. One GDG member commented	New studies were found relating to postpartum haemorrhage, postpartum blues, postnatal depression, perineal care, fatigue, urinary retention, urinary incontinence, contraception and domestic violence. However, the identified new evidence is mainly supportive of the guideline recommendations or showed lack of effectiveness of newly identified interventions, and would therefore not change the direction of current recommendations. Feedback from the GDG indicates they have concerns relating to basic physical observations that should routinely be carried out in postnatal

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
loss by photospectrometry. The authors concluded that drape estimation of blood loss is more accurate than visual estimation and may have particular utility in the developing world. One RCT[17] evaluated the effectiveness of a transparent plastic collector bag to measure postpartum blood loss after vaginal delivery in reducing the incidence of severe postpartum haemorrhage. The authors concluded that compared with visual estimation of postpartum blood loss the use of a collector bag after vaginal delivery did not reduce the rate of severe postpartum haemorrhage. <u>Perineal care</u> One Cochrane review[18] assessed the efficacy of a single administration of paracetamol (acetaminophen) in the relief of acute postpartum perineal pain. Results showed that more women experienced pain relief with paracetamol compared with placebo. Also, fewer women needed additional pain relief when they took paracetamol, as compared to placebo. One RCT[19] compared the effectiveness of perineal cold gel pad	postpartum haemorrhage. <u>Mental health and wellbeing - Postpartum blues</u> One study[67] on the effect of skin to skin contact on postpartum blues was identified. The intervention group received skin to skin contact with newborns for 20-30 minutes daily for 10 days while the control groups had no intervention. The authors concluded that mother and newborn skin to skin contact was effective for decreasing the severity of postpartum blues. <u>Mental health and wellbeing - Postnatal depression</u> *Risk factors for postnatal depression* A systematic review[68] of correlates of postnatal depression in fathers concluded that further systematic investigation of direct and indirect predictors of elevated depressive symptoms in men during this time is warranted. *Interventions for postnatal depression* A cluster randomised trial[69] of primary care teams in Trent, England found that women receiving care from a health visitor trained in identifying depressive symptoms and providing	that the advice in the guideline on back pain is limited and not very helpful, and there is an omission in not covering pelvic girdle pain.	women, and that pelvic pain has not been covered in the guideline. However, no specific evidence was identified either through the GDG members or literature searches.

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
versus oral analgesics in postpartum perineal pain relief. The authors concluded that the use of the cold gel pads was as effective in reducing perineal pain as oral analgesics. One RCT[20] evaluated the effectiveness of an ice pack applied for 20 minutes to alleviate perineal pain after spontaneous vaginal birth. The authors concluded that the use of ice packs for 20 minutes was effective for postpartum perineal pain relief after vaginal birth and had no adverse effects One RCT[21] compared the effects of lidocaine and bupivacaine on postpartum perineal pain among primiparous women who had spontaneous vaginal delivery. The authors concluded that bupivacaine resulted in prolonged analgesia and required fewer doses of oral analgesics in the immediate postpartum perineal repair period. One RCT[22] compared oral celecoxib with oral diclofenac as pain reliever after perineal repair following normal vaginal birth. The authors concluded that celecoxib was associated with a slightly lower VAS pain score at rest and less upper gastrointestinal	psychologically orientated sessions, who screen negative for depression at 6 weeks postnatally were less likely to be depressed at 6 months compared to women in the control group. A Cochrane review[70] concluded that psychosocial and psychological interventions significantly reduce the number of women who develop postpartum depression and that promising interventions include the provision of intensive, professionally-based postpartum home visits, telephone-based peer support, and interpersonal psychotherapy. A Cochrane review[71] assessed the benefits of dietary supplements for preventing postnatal depression and concluded that currently there is no evidence to recommend food supplements for this indication. One small RCT[72] of 4-weeks' duration concluded that omega-3 fatty acids is a suitable compound with no side effect in decreasing postpartum depression but that further studies with longer durations to identify its remission patterns are warranted. One study[73] on the effect of mother/infant skin-to-skin contact on		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
symptoms were reported when compared to diclofenac. One RCT[23] investigating the efficacy of nerve stimulator-guided unilateral pudendal nerve block with ropivacaine for pain relief after episiotomy, showed that the intervention group reported significantly lower pain scores at rest than those in the normal saline group at 3, 6, 12, 24, and 48 hours after delivery. The study also reported better analgesia for the intervention group while sitting and walking. One RCT[24] compared the effectiveness of tramodol and placebo rectal suppository for the management of postpartum perineal pain after perineorrhaphy and concluded that there were no differences between the two interventions. One RCT[25] assessed whether epidural morphine after vaginal delivery would reduce the analgesic requirements for perineal pain. The authors concluded that women who receive epidural labour analgesia for vaginal deliveries and stay in the hospital for 24 h after delivery may benefit from postpartum administration of epidural morphine. One RCT[26] compared pain relief in	postpartum depressive symptoms and maternal physiological stress was found. The authors concluded that skin-to-skin contact benefits mothers by reducing their depressive symptoms and physiological stress in the postpartum period. One RCT[74] on the effectiveness of home-based peer support on maternal-infant interactions among women with postpartum depression found that maternal-infant interaction teaching by peers is not well received by mothers with postpartum depression and might be more optimally delivered by professional nurses. A prospective economic evaluation[75] of a peer support intervention for prevention of postpartum depression among high-risk women concluded that it results in a net cost to the health care system and society. However, this cost is within the range for other accepted interventions for this population. <u>Physical health and well-being - Perineal care</u> One Cochrane review[76] on local cooling for relieving pain from perineal trauma sustained during childbirth found that ice packs improve pain relief 24 to 72 hours		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
postpartum women receiving analgesia administered by nurses with the relief achieved by use of self-administered medication. The authors posited that the use of self-administered medication should be considered for every postpartum unit. A prospective cohort study[27] compared outcomes of suturing versus non-suturing of second-degree perineal tears. Results showed that high levels of morbidity persisted in both groups, with no differences observed for perineal pain between the two groups, although women whose trauma was unsutured had more urinary frequency at ten days, increased self-referral for perineal problems and increased likelihood of depression at 12 months. One prospective study[28] examined the effect of genital tract trauma, labour care, and birth variables on the incidence of pain in a population of healthy women exposed to low rates of episiotomy and operative vaginal delivery. The conclusion was that women with spontaneous perineal trauma reported very low rates of postpartum perineal pain and that women with major trauma reported	after birth compared with no treatment One RCT[77] investigated the efficacy of lidocaine gel 2% or placebo in pain relief after episiotomy. Results showed that women using lidocaine gel had significantly lower average pain scores at 12 hours after delivery. Also there was a significant difference between the two groups in consumption of analgesia in postpartum. One RCT[78] evaluated the effectiveness of high-frequency transcutaneous electrical nerve stimulation (TENS) as a pain relief resource for primiparous women who had experienced natural childbirth with an episiotomy and concluded that TENS is a safe and viable non-pharmacological analgesic resource for pain relief post-episiotomy. One RCT[79] evaluated the effectiveness of a low-level laser therapy for pain relief in the perineum following episiotomy during childbirth. The authors concluded that the intervention did not decrease the intensity of perineal pain reported by women who underwent right mediolateral episiotomy. One RCT[80] of tramadol suppository versus placebo for the relief of perineal pain after perineorrhaphy was found.		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
increased perineal pain compared with women who had no or minor trauma; however, by 3 months postpartum this difference was no longer present. Faecal incontinence One systematic review[29] on causes of postpartum fecal incontinence (FI) found that a third- or fourth-degree sphincter rupture was the only etiological factor strongly (anal incontinence) or moderately (flatus incontinence) associated with postpartum FI, but not birth weight or instrumental delivery. One study[30] on fecal incontinence (FI) among women during pregnancy and postpartum showed among others that women who reported it at 1 year were more educated than those who did not report it and that no other demographic or birth data were associated with the condition at 1 year. Urinary incontinence One systematic review[31] focusing on postnatal pelvic floor muscle training for preventing and treating urinary incontinence showed that supervised intensive programs are more effective than standard postnatal care in the	Results showed that tramadol and placebo had no statistical significances in analgesic properties, assessed by the means of pain rating at the different time intervals. Physical health and well-being - Fatigue One systematic review[81] aimed to synthesise the evidence on the interconnectedness of infant crying and maternal tiredness in the postpartum period. Findings indicated that the amount of infant crying during the first three months postpartum is associated with the experience of tiredness and fatigue in new mothers. Physical health and well-being - Urinary retention A systematic review and meta-analysis of observational studies[82] of risk factors for postpartum urinary retention (PUR) was identified. The authors concluded that instrumental delivery, epidural analgesia, episiotomy and nulliparity are statistically significantly associated with a higher incidence of overt PUR. Physical health and well-being - Urinary incontinence A systematic review[83] of the published data on the prevalence, incidence and risk factors of female urinary		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
prevention/treatment of postnatal urinary incontinence immediately after delivery and in persistent incontinence, but that longer-term results have yet to show advantages for postnatal training programs One Cochrane review[32] assessed the effect of pelvic floor muscle training (PFMT) compared to usual antenatal and postnatal care on incontinence. The authors concluded that among primiparous women, the pelvic floor muscle training can prevent urinary incontinence in late pregnancy/postpartum and is therapeutic for older women with persistent postpartum urinary incontinence. One systematic review[33] was identified that addressed pelvic floor muscle training in the prevention and treatment of urinary incontinence during pregnancy and after delivery. Most included studies reported statistically and clinically significant effects of the interventions, with a significant reduction in symptoms or frequency of urinary incontinence after the intervention period. One systematic review[34] presented evidence for the efficacy and	incontinence in Europe found that significant risk factors were maternal age >35 years and initial body mass index, a family history of urinary incontinence and parity. Two RCTs and two systematic reviews of postpartum pelvic floor muscle training (PFMT) indicated that it is effective in treatment and/or prevention of urinary incontinence after birth[84; 85; 86; 87]. Conversely, one RCT[88] in primiparous women of mixed population (i.e. with and without urinary incontinence (UI)) at inclusion, starting 6 weeks after delivery and stratified on major pelvic floor muscle defects concluded that postpartum PFMT did not decrease UI prevalence 6 months after delivery in this group of women, with stratified analysis showing similar non-significant results. One Cochrane review[89] concluded that there was insufficient evidence to state whether or not there were additional effects of adding PFMT to other active treatment when compared with the same active treatment alone for urinary incontinence in women. A Cochrane review[90] concluded that weighted vaginal cones are better than no active treatment in women with		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
effectiveness of pelvic floor muscle training performed alone and together with adjunctive therapies for the treatment of stress urinary incontinence in women. The authors concluded that there is strong evidence for the efficacy of physical therapy for the treatment for female stress urinary incontinence. One systematic review[35] on the use of pelvic floor muscle exercise in the management of urinary incontinence in women concluded that pelvic floor muscle exercise is particularly beneficial in women with stress urinary incontinence alone, and who participate in a supervised pelvic floor muscle training programme for at least three months. One systematic review[36] on unassisted pelvic floor exercises for postnatal stress incontinence was identified. Results revealed short-term improvement in incontinence symptoms but at later follow-up results were no longer statistically significant One RCT[37] evaluated the effect of antenatal pelvic floor muscle exercise (PFME) in the prevention and treatment of urinary incontinence during pregnancy and the postpartum	stress UI and may be of similar effectiveness to PFMT and electrostimulation. The authors posited however that this conclusion must remain tentative until larger, high-quality trials, that use comparable and relevant outcomes, are completed. One Cochrane review[91] concluded that feedback or biofeedback may provide benefit in addition to PFMT in women with urinary incontinence. However, further research is needed to differentiate whether it is the feedback or biofeedback that causes the beneficial effect or some other difference between the trial arms. One Cochrane review[92] on urethral injection therapy for urinary incontinence in women was found. The authors concluded that the available evidence base remains insufficient to guide practice. One Cochrane review[93] on mechanical devices for urinary incontinence in women concluded that the place of mechanical devices in the management of urinary incontinence remains in question. One Cochrane review[94] of acupuncture for stress UI concluded that the effect of		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
period. The authors concluded that PFME applied in pregnancy is effective in the treatment and prevention of urinary incontinence during pregnancy, and this effect may persist to postpartum period. One RCT[38] to determine the efficacy of antenatal pelvic floor muscle exercises in the primary prevention of postpartum stress incontinence in primiparous women was identified. Results showed that the intervention group was more likely to exercise their pelvic floor muscles compared to controls and reported fewer episodes of incontinence, however, the differences were not statistically significant One RCT[39] evaluating the effectiveness of pelvic floor muscle training (PFMT) as part of a general fitness class for pregnant women showed no effect when the exercises were taught in a general fitness class without individual instruction of correct PFM contraction. One study[40] determined the effectiveness of pelvic floor muscle exercises on urinary incontinence during pregnancy and the postpartum period. The authors concluded that	acupuncture for stress urinary incontinence is uncertain as there is not enough evidence to determine whether acupuncture is more effective than drug treatment. A multicentre prospective study[95] of pelvic floor dysfunctions related to delivery concluded that new onset of UI or anal incontinence (AI) during pregnancy, positive family history and vaginal delivery are independent risk factors for the persistence of symptoms of UI and AI in the early postpartum period. <u>Contraception</u> A prospective trial[96] on the use of contraceptives during breastfeeding concluded that hormonal contraceptives do not affect the amount of infant milk intake and growth. A systematic review[97] evaluating the scientific basis for conflicting clinical recommendations related to postpartum medroxyprogesterone use among breastfeeding women concluded that the current evidence is methodologically weak and provides an inadequate basis for inference about a possible causal relationship between the two. One RCT[98] of personalised		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
pelvic floor muscle exercises are quite effective in the augmentation of the pelvic floor muscle strength and consequently in the treatment of urinary incontinence. An eight-year follow up of an RCT[41] on the long-term efficacy of antenatal pelvic floor muscle training (PFMT) on stress urinary incontinence (SUI) showed that initial positive outcomes at 3 months in the treatment group (compared to control group) was not evident at the 8-year follow-up. The findings raise concerns about the long-term efficacy of PFMT. <u>Contraception</u> One systematic review[42] assessed the effects of educational interventions about contraceptive use for postpartum mothers. The authors concluded that postpartum education about contraception led to more contraception use and fewer unplanned pregnancies <u>Signs and symptoms of postnatal depression</u> One HTA report[43] provided an overview of methods to identify postnatal depression (PND) in primary care and assessed their validity,	contraceptive assistance and uptake of long-acting, reversible contraception (LARC) by postpartum women concluded that providing telephone assistance to help navigate barriers did not increase postpartum uptake of LARC. One study[99] on barriers to LARC use in the postpartum period in the US found that many postpartum women who desire to use LARC do not receive it in the postpartum period and use less effective contraceptive methods instead. The authors concluded that increasing access to immediate postpartum insertion of LARC and eliminating two-visit protocols for LARC insertion may enable more postpartum women to receive LARC. A sub-study of baseline data from an RCT[100] of characteristics associated with interest in LARC use among postpartum women found that high interest exists among postpartum women with a recent unintended pregnancy and women who do not desire pregnancy for at least 2 years. <u>Safety - Domestic abuse</u> A meta-analysis of observational studies[101] examined the association		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
acceptability, clinical and cost-effectiveness, and modelled estimates of cost to determine whether any method met the UK National Screening Committee (NSC) criteria. Results showed that the Edinburgh Postnatal Depression Scale (EPDS) was the most frequently explored instrument, had a reasonably good test performance and acceptability among women and care-providers but did not appear to represent value for money. One systematic review[44] on the main screening tools used to screen for postnatal depression was identified. Of the four screening tools reviewed and compared, the Edinburgh Postnatal Depression Scale (EPDS) and the Postpartum Depression Screening Scale (PDSS) presented substantial sensitivity and specificity. However, the authors surmised that none of the instruments could be rated flawless when applied to different cultural contexts. One systematic review [45] of qualitative and quantitative studies on screening for post-natal depression (PND) found that PND screening was acceptable to women and healthcare professionals.	between domestic violence and postpartum depression and reported a positive correlation between them. The authors suggested that in women of reproductive age, postpartum depression induced through violence can be prevented through early identification. However, they also suggested that due to heterogeneity and wide confidence intervals in this meta-analysis, further research is required.		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
Aspects such as the woman needs to feel comfortable about the screening process; forewarning of the process and administration by a trusted person in her own home, were also identified as being important. A systematic review[46] on the validity of the Edinburgh Postnatal Depression Scale (EPDS) in detecting postpartum and antepartum depression was identified. The authors concluded that the results of different studies may not be directly comparable and the EPDS may not be an equally valid screening tool across all settings and contexts. One systematic review[47] of the clinical and cost effectiveness of antenatal and postnatal recognition of depressive symptoms was identified. The authors concluded that despite some apparent beneficial effects of using formal methods to identify PND, it is difficult to disentangle the effects of the screening component alone from interventions linked to a positive screen as some of the studies included enhancements of care and/or an intervention. One RCT[48] was identified that supported the use of the Edinburgh Postnatal Depression Screening Scale			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
with a diagnostic assessment for those who screen positive. The authors concluded that screening must be linked to treatment options via referral and follow-up and that best-practice strategies for implementing screening include educating clinicians and postpartum women One RCT[49] evaluated the effectiveness of a postnatal depression screening programme using the Edinburgh Postnatal Depression Scale (EPDS) in improving maternal mental health. The authors' conclusion was that a postnatal depression screening programme comprising the use of EPDS as the screening tool and the provision of follow-up care resulted in an improvement in maternal mental health at 6 months. One study[50] explored general practitioners' (GPs), health visitors' and women's views on the disclosure of symptoms which may indicate postnatal depression in primary care. Women described making a conscious decision about whether or not to disclose their feelings to their GP or health visitor. Health professionals described strategies used to hinder			

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disclosure and described a reluctance to make a diagnosis of postnatal depression. Risk factors of postnatal depression One predictive validation study[51] of the Edinburgh Postnatal Depression Scale (EPDS) in the first week after delivery identified the following as risk factors of postnatal depression: previous history of depression (postnatal or other), unemployment, premature delivery or stopping breast-feeding in the first month for non-medical reasons; and concluded that the use of EPDS between the third and fifth day postpartum is valid. One systematic review[52] examined the hypothesis that women who conceive using assisted reproductive technologies (ART) and women with multiple births, may be at increased risk for postpartum depression. The authors concluded that the identified studies were small and lacked appropriate comparison groups, making further research in this area essential. One systematic review[53] on the prevalence and risk factors for postpartum depression among women			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
with preterm infants was identified. The review revealed that mothers of preterm infants are at higher risk of depression than mothers of term infants in the immediate postpartum period, with continued risk throughout the first postpartum year for mothers of very-low-birth-weight infants. One study[54] which examined socioeconomic status (SES) as a risk factor for depressive symptoms in late pregnancy and the early postpartum period was identified. The conclusion of the authors was that although new mothers from all SES strata are at risk for postpartum depression, SES factors including low education, low income, being unmarried, and being unemployed increased the risk of developing postpartum depressive symptoms in their sample. One systematic review[55] on depression among fathers during pregnancy and the first postpartum year was identified. Results showed a moderate positive correlation for paternal depression with maternal depression and a relatively higher incidence of paternal depression in the 3- to 6-month postpartum period. One systematic review[56] on the			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
correlates of ante- and postnatal depression in fathers was identified. Results showed that the most common correlates of depressive symptoms pre- and post-birth in fathers was having a partner with elevated depressive symptoms/depression and poor relationship satisfaction. One systematic review[57] examined the prevalence of and risk factors for postpartum depression in rural communities. Results showed that although established risk factors were associated with depression in rural women, additional risk factors (such as having 2 or more young children) were reported for rural women from developing countries. The authors concluded that longitudinal studies with clearly defined "rural" and "comparison" groups are needed to determine whether rural residence is associated with increased risk for PPD <u>Interventions for postnatal blues/postnatal depression</u> One study[58] evaluated the effect of providing information on postpartum blues during pregnancy on the intensity of the blues. The authors concluded that providing information			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
on postpartum blues during the third trimester of pregnancy may reduce the intensity of the blues. One meta-data-analysis[59] of qualitative studies on postpartum depression (PPD) was identified. The authors concluded that women survive depression through support that validates their experience and promotes eventual reconnection with others and emphasized the need for persons trained to facilitate relational connection to develop interventions that address the interpersonal contexts of PPD One cross-sectional survey[60] of women who participated in an RCT to evaluate the effect of peer support in the prevention of postpartum depression was identified. Results showed that the majority of mothers perceived their peer volunteer experience positively lending further support to telephone-based peer support as a preventative strategy for postpartum depression. One RCT[61] tested the effectiveness of home-based peer support that included maternal-infant interaction teaching for mothers with symptoms of postpartum depression and their			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
infants. The findings suggested that maternal-infant interaction teaching by peers is not well received by mothers with postpartum depression and might be more optimally delivered by professional nurses. One qualitative study[62] explored women's experiences of the identification and management of postnatal depression. The authors concluded that the experience of women of their health visitors providing psychological sessions to help with postnatal depressive symptoms is highly positive and that women will better accept support from health visitors if they recognise their role in postnatal depression and find them easy to relate to on personal matters. <u>Debriefing interventions</u> One systematic review[63] on the effectiveness of postnatal debriefing to prevent maternal mental health problems after birth was identified. The authors concluded that it might be appropriate to consider offering women an opportunity to discuss their childbirth experience and to differentiate this discussion from the offer of a formal debriefing, which is			

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unsupported by evidence. One study[64] evaluated postnatal debriefing as a treatment for post-partum women who requested it. The authors concluded that providing debriefing as a treatment to women who requested or are referred to it may help to reduce symptoms of posttraumatic stress disorder.			
Infant feeding			
<u>Factors that contribute to successful breastfeeding</u> One HTA report[102] evaluated the effectiveness and cost-effectiveness of interventions that promote or inhibit breastfeeding or feeding with breast milk for infants admitted to neonatal units. The authors concluded that despite the limitations of the evidence base, kangaroo skin-to-skin contact, peer support, simultaneous breast milk pumping, multidisciplinary staff training and the Baby Friendly accreditation of the associated maternity hospital are effective, and skilled support from trained staff in hospital is potentially cost-effective. One Cochrane review[103] assessed the effects of early skin-to-skin contact (SSC) on breastfeeding, behavior, and	<u>Interventions for effective breast feeding</u> Three systematic reviews of interventions to promote and support breastfeeding indicated benefit for multi-component interventions rather than single-component and single-contact interventions[156], educational programmes delivered in the context of ongoing personal contact with a health professional[157] and health education and peer support[158]. Two RCTs and one Cochrane review on skin-to-skin contact during breastfeeding indicated that it benefits breastfeeding outcomes, and cardio-respiratory stability and decrease infant crying, and has no apparent short- or long-term negative effects[159], enhances maternal positive feelings and shortens the time it takes to resolve severe latch-on	No clinical feedback was provided through the GDG questionnaire relating to this section of the guideline.	New studies were found relating to a number of topics within the infant feeding area - interventions for effective breastfeeding, breastfeeding information and support, starting successful breastfeeding, barriers to breastfeeding, expression of breastmilk, nipple pain and mastitis. However, the identified new evidence is mainly supportive of the guideline recommendations which revolve around a supportive environment for breastfeeding, starting and continuing successful breastfeeding, and the prevention, identification and treatment of breastfeeding concerns. Hence, the identified new evidence would not change the direction of current

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physiological adaptation in healthy mother-newborn dyads. The authors concluded that the intervention may benefit breastfeeding outcomes, early mother-infant attachment, infant crying and cardio-respiratory stability, and has no apparent short or long-term negative effects. One RCT[104] evaluating the effects of maternal-infant skin-to-skin contact during the first 2 hours post-birth compared to standard care (holding the infant swaddled in blankets) on breastfeeding outcomes through 1 month follow-up, was identified. The authors concluded that very early skin-to-skin contact enhanced breastfeeding success during the early postpartum period and that no significant differences were found at 1 month. One RCT[105] evaluated the effects of early contact versus separation on the mother-infant interaction one year after initial randomisation. The authors concluded that when compared with routines involving separation of mother and infant, skin-to-skin contact, for 25 to 120 minutes after birth, early suckling, or both positively influenced mother-infant interaction.	problems in older babies who started to latch[160] and that separation and swaddling at birth interfered with mother-infant interaction during breastfeeding; these mothers significantly demonstrated more roughness in their behaviours with their infants at Day 4[161]. The authors of this RCT[161] encouraged immediate and uninterrupted skin-to-skin contact at birth, and rooming-in during postpartum. • One RCT[162] investigated the impact of lactation support on exclusive breastfeeding (EBF) to six months and found no group differences in EBF rates at 6 weeks, 4 months or 5.5 but marginal evidence of differences was found at 6 months of age. One RCT[163] examined the effects of a community doula home visiting intervention on infant feeding practices among young mothers. The authors concluded that community doulas may be effective in helping young mothers meet breastfeeding and healthy feeding guidelines. One RCT[164] of a process-oriented breastfeeding training programme for healthcare professionals to promote breastfeeding found that the programme was associated with a reduced number		recommendations.

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One RCT[106] investigated whether the implementation of Kangaroo Mother Care (KMC) to low birth weight infants would improve physical growth, breastfeeding and its acceptability. The authors concluded that KMC improved physical growth, breastfeeding rates and was well accepted by both mothers and nursing staff. One RCT[107] on the effects of kangaroo care (KC) (skin-to-skin contact) on breastfeeding status in mother-preterm infant dyads from postpartum through 18 months was identified. Results showed that KC dyads, compared to control dyads, breastfed significantly longer, more exclusively at each measurement, and more KC dyads than control dyads breastfed at full exclusivity at discharge and at 1.5, 3, and 6 months. One study[108] compared mothers' and newborns' temperatures after caesarean delivery when skin-to-skin contact (SSC) was practiced. Results showed that SSC caesarean-delivered newborns were not at risk for hypothermia compared with newborns who received routine care. Also, SSC newborns attached to the breast	of infants being given breastmilk substitutes during the 1st week without medical reasons and delayed the introduction of breastmilk substitutes after discharge from the hospital. One study[165] assessed the feasibility and acceptability of a feeding team intervention with an embedded RCT of team-initiated and woman-initiated telephone support for breastfeeding after hospital discharge. The authors concluded that implementing and integrating the trial within routine postnatal care was feasible and acceptable to women and staff from a research and practice perspective and showed promise for addressing health inequalities. A sub-analysis of an RCT[166] on breastfeeding initiation in the context of a home intervention to promote better birth outcomes found that modifiable risk factors were associated with rates of breastfeeding initiation and that it may be possible to use protocols delivered via nurse-midwife home visits within a global intervention to increase breastfeeding initiation. One RCT[167] evaluated determinants of successful breastfeeding with follow-up of women and children		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
earlier, were breast-fed at discharge, and at 3 months; and the SSC mothers expressed high levels of satisfaction with the intervention One Cochrane review[109] assessed the effect of pacifier use versus no pacifier use in healthy full-term newborns whose mothers had initiated breastfeeding and intended to exclusively breastfeed, on the duration of breastfeeding, other breastfeeding outcomes and infant health. The authors concluded that pacifier use in healthy term breastfeeding infants, started from birth or after lactation is established, did not significantly affect the prevalence or duration of exclusive and partial breastfeeding up to four months of age. One systematic review[110] evaluated the effect of supplemental fluids or feedings during the first days of life on the overall breastfeeding duration and rate of exclusive breastfeeding among healthy infants. The authors' conclusion was that there remains considerable uncertainty about the effect of brief exposure to water, breast-milk substitutes, or other liquids on the success and duration of breastfeeding.	receiving comprehensive or traditional form of care after 8 weeks. The authors concluded that no variables independently affect EBF initiation and duration at 8 weeks, however, comprehensive care was of benefits. One RCT[168] found that telephone lactation counselling provided by certified lactation counsellors was effective in increasing the rate of exclusive breastfeeding for the first postpartum month but not during the 4 and 6 month postpartum intervals. A pilot RCT[169] of a breastfeeding self-efficacy intervention with primiparous mothers found that mothers in the intervention group had higher rates of breastfeeding self-efficacy, duration, and exclusivity at 4 and 8 weeks postpartum. However, the differences between groups were not statistically significant. A randomised study[170] on acupuncture treatment as breastfeeding support found that 3 weeks of acupuncture treatment was more effective than observation alone in maintaining breastfeeding until the third month of the newborns' lives. One randomised study[171] on the effect of the side-car bassinet on postnatal unit		

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One study[111] compared breastfeeding initiation and duration in nulliaparae who received epidural analgesia (randomised to bupivacaine control epidural, combined spinal epidural or low dose infusion) and matched non-epidural comparisons. Results showed that women with no epidural did not report a higher initiation rate relative to epidural groups; those who received pethidine reported a lower initiation rate than control epidural and that among others, epidural fentanyl was not predictive of breastfeeding. The authors concluded there was no effect of epidural fentanyl on breastfeeding initiation <u>Practices that encourage breastfeeding</u> One RCT[112] investigated whether postnatal mother-infant sleep proximity affects breastfeeding initiation and infant safety. Babies were allocated to one of three sleep conditions: in mother's bed with cot-side, in side-car crib attached to mother's bed and in stand-alone cot adjacent to mother's bed. Results showed that bed and side-car crib infants breastfed more frequently than stand-alone cot infants and no infant experienced adverse	breastfeeding frequency and other maternal-infant behaviours compared to a stand-alone bassinet following caesarean birth found that women preferred the side-car, but differences in breastfeeding frequency were not statistically significant. More infant risks were observed with stand-alone bassinet use. <u>Breastfeeding information and support</u> One RCT[172] on the effect of training administered to working mothers and its duration on maternal anxiety levels and breastfeeding habits concluded that educating working mothers about breastfeeding reduces their anxiety levels and positively influences their breastfeeding habits. A cluster RCT[173] of EBF promotion by peer counsellors found that low-intensity individual breastfeeding peer counselling is achievable and, although it does not affect diarrhoea prevalence, can be used to effectively increase EBF prevalence. One RCT[174,175] of EBF support found that mobile phone based peer support based counselling may be as effective in supporting EBF as peer support group approaches, and more effective than		

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events; however, bed infants were more frequently considered to be in potentially adverse situations. The authors concluded that side-car cribs are effective in enhancing breastfeeding initiation and preserving infant safety in the postnatal ward One RCT[113] compared sidecar cribs attached to mothers bed on the postnatal ward with standalone cots adjacent to their bed. Results showed that the use of sidecar cribs did not improve the duration of breastfeeding or the frequency of bed sharing at home One study[114] investigated whether breastfeeding rates were higher among mothers delivering in Baby Friendly accredited maternity units in the UK. The authors' conclusion was that policies to increase the proportion of maternity units participating in the Baby Friendly Initiative are likely to increase breastfeeding initiation but not duration. Other strategies are required in order to support UK mothers to breastfeed for the recommended duration One prospective cohort study[115] investigated the patterns of bed sharing, the characteristics associated	usual standard of care, but is not associated with large differences in infant medication, illness and growth at 3 months postpartum. A systematic review[176] of peer support interventions for breastfeeding found that professionals require breastfeeding education to act as breastfeeding supporters as well as the support of their organisations. A Cochrane review[177] assessed the effectiveness of support for breastfeeding mothers. Results showed that all forms of extra support showed an increase in duration of 'any breastfeeding' and also had a positive effect on duration of EBF. Extra support by both lay and professionals also had a positive impact on breastfeeding outcomes. One RCT[178] assessed the effectiveness of a peer support worker service on breast-feeding continuation in the UK. The study found that universal antenatal peer support and postnatal peer support for women who initiated breast feeding did not improve breast-feeding rates. A systematic review and metaregression analysis of RCTs[179] to examine the effect of setting, intensity, and timing of		

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with those patterns, and the relationship with breastfeeding. The authors concluded that advice on whether bed sharing should be discouraged needs to take into account the important relationship with breastfeeding. A systematic review[116] on the effectiveness of primary care-initiated interventions to promote breastfeeding with respect to breastfeeding and child and maternal health outcomes, was identified. The authors concluded that the evidence suggested that breastfeeding interventions are more effective than usual care in increasing short- and long-term breastfeeding rates and that combined pre- and postnatal interventions and inclusion of lay support in a multicomponent intervention may be beneficial. A systematic review[116] on the effectiveness of primary care-initiated interventions to promote breastfeeding was identified. The authors concluded that breastfeeding interventions are more effective than usual care in increasing short- and long-term breastfeeding rates and that combined pre- and postnatal interventions and inclusion of lay support in a	peer support on breast feeding found that although peer support interventions increase breastfeeding continuation in low or middle income countries, especially EBF, this does not seem to apply in high income countries, particularly the UK, where breastfeeding support is part of routine postnatal healthcare. One RCT[180] of breastfeeding education and support for overweight and obese women found that the intervention did not impact EBF practices but was associated with increased rates of any breastfeeding and breastfeeding intensity at 2 weeks postpartum and decreased rates of infant hospitalisation in the first 6 months after birth. A systematic review of qualitative studies[181] exploring women's perceptions and experiences of professional or peer breastfeeding support identified strong evidence for adoption of models and arrangements that emphasise relationship-based care by facilitating provision of more continuity of care and individualised care and advice for women; practical help for women who need it; antenatal education; postnatal advice and support; midwifery/nursing education to enhance communication and information		

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multicomponent intervention may be beneficial. One Cochrane review[117] on interventions for promoting the initiation of breastfeeding was identified. The authors concluded that health education and peer support interventions can result in some improvements in the number of women beginning to breastfeed. One randomised study[118] showed that after implementation of a process-oriented breastfeeding training program for antenatal midwives and postnatal nurses that included an intervention guaranteeing continuity of care, the mothers were more satisfied with emotional and informative support during the first 9 months postpartum One systematic review[119] of professional support interventions for breastfeeding was identified. The authors concluded that The Baby Friendly Hospital Initiative (BFHI) as well as practical hands off-teaching, when combined with support and encouragement, were effective approaches. Postnatally effective were home visits, telephone support and breastfeeding centres combined with	provision skills; and support schemes that cater to women from all socio-economic groups. <u>Starting successful breastfeeding</u> An RCT[182] on the effects of perinatal practices (apparel and separation) on physiological and psychosocial variables and on breastfeeding found that separation and swaddling at birth interfere with mother-infant interaction, that mothers significantly demonstrate more roughness in their behaviours with their babies when they are swaddled and even more if they are separated. <u>Barriers to breastfeeding</u> One systematic review[183] found the followings as barriers to breastfeeding in the Women, Infants, and Children (WIC) population: lack of support inside/outside the hospital, returning to work, practical issues, WIC-related issues, and social/cultural barriers. Factors predisposing to lower breastfeeding rates include non-Hispanic ethnicity, obesity, depression, younger age, or an incomplete high school education. Interventions trialled with positive outcomes include peer counselling, improved communication between hospital lactation consultants and WIC staff, breast-pump programs,		

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peer support One RCT[120] assessing the clinical effectiveness and cost effectiveness of a policy to provide breastfeeding groups for pregnant and breastfeeding women was identified. The authors concluded that a policy for providing breastfeeding groups did not improve breastfeeding rates at 6-8 weeks and that the costs of running groups would be similar to the costs of visiting women at home. One RCT[121] conducted in Jordan aimed to test whether the introduction of an educational program supporting breastfeeding would increase the proportion of women who breastfed fully to six months, improve the women's level of breastfeeding knowledge, and decrease the proportion of infants admitted to hospitals due to gastrointestinal illnesses. The authors concluded that although the postnatal education and support program improved breastfeeding knowledge among women in the study, the increase in knowledge did not translate to an increase in the duration of full breastfeeding to six months. One community-based cluster-	and discouraging routine formula provision in the hospital and by WIC. <u>Expression of breastmilk</u> One Cochrane review[184] of methods of milk expression for lactating women concluded that the most suitable method for milk expression may depend on the time since birth, purpose of expression and the individual mother and infant, and that low cost interventions including early initiation when not feeding at the breast, relaxation, hand expression and lower cost pumps may be as effective, or more effective, than large electric pumps for some outcomes. One RCT[185] comparing hand expression with breast pumping for mothers of term newborns feeding poorly at 12-36 hours after birth concluded that hand expression in the early postpartum period improves eventual breastfeeding rates at 2 months after birth compared with breast pumping, but further research is needed to confirm this. A systematic review[186] concluded that there is limited evidence about the prevalence and outcomes of expressing breast milk amongst mothers of healthy term infants, that the practice of expressing breast milk has increased		

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randomized trial in Western Denmark[122] assessed the impact of a supportive intervention on the duration of breastfeeding. The authors concluded that home visits in the first 5 weeks following birth may prolong the duration of exclusive breastfeeding; postnatal support should focus on both psychosocial and practical aspects of breastfeeding and that mothers with no or little previous breastfeeding experience require special attention One historical cohort study[123] investigated whether a 4-h training programme in 'hands off' positioning and attachment support increased midwives' breastfeeding knowledge and problem-solving skills. The authors concluded that there is a large variation in the breastfeeding knowledge of midwives working in postnatal care and that a 4-h workshop in a positioning and attachment intervention, using a 'hands-off' approach, can increase midwives' knowledge of breastfeeding support relevant to the immediate post-natal period. One systematic review[124] on factors that positively influence breastfeeding	along with the commercial availability of a range of infant feeding equipment, and that the reasons for expressing have become more complex. <u>Preventing, identifying and treating breast concerns - Nipple pain</u> One RCT[187] of a nipple ointment versus lanolin in treating painful damaged nipples in breastfeeding women found no significant group differences in mean pain scores at 1 week after randomisation, however, women in the lanolin group reported significantly greater satisfaction with their infant feeding method and had non-significantly higher breastfeeding duration and exclusivity rates at 12 weeks postpartum. <u>Preventing, identifying and treating breast concerns - Mastitis</u> A Cochrane review[188] of interventions for preventing mastitis after childbirth concluded that there was insufficient evidence to show effectiveness of any of the interventions, including breastfeeding education, pharmacological treatments and alternative therapies, regarding the occurrence of mastitis or breastfeeding exclusivity and duration.		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
duration to 6 months was found. The authors concluded that the modifiable factors that are positively associated with breastfeeding duration are the woman's breastfeeding intention, her breastfeeding self-efficacy and her social support. One RCT[125] assessed whether providing a breastfeeding support team results in higher breastfeeding rates at 6, 12, and 24 weeks postpartum among urban low-income mothers. The authors concluded that the intervention group was more likely to be breastfeeding at 6 weeks postpartum compared with the usual-care group, a time that coincided with the most intensive part of the intervention. One RCT[126] investigated whether peer counselors impacted on breastfeeding duration among premature infants in an urban population. Results showed that at 12 weeks postpartum, women with a peer counsellor had odds of providing any amount of breast milk 181% greater than women without a peer counsellor. The authors concluded that peer counselors increased breastfeeding duration among premature infants.	A Cochrane review[189] of antibiotics for mastitis in breastfeeding women was found; two trials of poor quality met the inclusion criteria. One small trial compared amoxicillin with cephradine and found no significant difference between the two antibiotics in terms of symptom relief and abscess formation. The other study compared breast emptying alone as 'supportive therapy' versus antibiotic therapy plus supportive therapy, and no therapy, with results indicating faster clearance of symptoms for women using antibiotics. The authors concluded that there is an urgent need to conduct high-quality trials to determine whether antibiotics should be used in this condition.		

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
One study[127] investigated the efficacy of acupuncture for the maintenance of breastfeeding during the first 3 months of a newborn's life. The authors concluded that 3 weeks of acupuncture treatment were more effective than observation alone in maintaining breastfeeding until the third month of the newborns' lives. One qualitative study[128] on mothers' reactions to a skills-based breastfeeding promotion intervention was identified. The intervention group participants described the mother-baby specialist as key in their decision to initiate and maintain breastfeeding. They credited her direct skills and positive reinforcement with their confidence and perseverance to breastfeed. The success of the intervention was attributed to technical assistance from a trained lactation consultant within the context of a relationship built on encouragement, guidance and support. One qualitative study[129] on the experiences of trained 'lay' women to support exclusive breast feeding in South Africa was identified. Results showed that unlike the services provided by mainstream health care,			

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peer supporters had to market their services. They had to negotiate entry into the mother's home and then her life. The authors concluded that designers of peer support interventions should consider the skills required for delivering health messages and the skills required for selling a service. One qualitative study[130] on women's experience of infant-feeding peer counseling within a community-based intervention trial in South Africa was identified. Results showed that some women feared the peer counselor visits and questioned their intentions. Others, especially HIV-infected women, valued peer counseling for the emotional support provided. One qualitative study[131] explored the incentives and disincentives to breastfeeding experienced within 6 months postpartum among low-income breastfeeding women. The authors concluded that intrinsically motivated women may need support and instruction, extrinsically motivated women may benefit from motivational interviewing, and successfully experienced women may need only minimal breastfeeding counseling.			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
One meta-synthesis of qualitative studies[132] examined women's perceptions and experiences of breastfeeding support, either professional or peer, to illuminate the components of support that they deemed "supportive". The authors concluded that the findings emphasize the importance of person-centered communication skills and of relationships in supporting a woman to breastfeed. One systematic review[133] on the effects of training, education and practice change interventions with health professionals and lay breast feeding educator/counsellors on duration of breast feeding was found. The authors concluded that there was insufficient evidence to draw conclusions about overall benefit or harm associated with the interventions and that there seems to be no single way that consistently achieved changes in breast feeding duration. From one of the methodologically more robust studies, however, the UNICEF/WHO Baby Friendly Hospital Initiative (BFI) training might have the potential to influence breast feeding duration.			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
One economic analysis[134] compared the incremental costs associated with the provision of home-based vs. hospital-based support for breastfeeding by nurse lactation consultants for term and near-term neonates during the first week of life. Results showed that the cost of home lactation support programmes were comparable with the costs of hospital-based standard care. One RCT[135] investigated whether antenatal breast feeding education alone or postnatal lactation support alone improves rates of exclusive breast feeding compared with routine hospital care. The authors concluded that antenatal breast feeding education and postnatal lactation support, as single interventions based in hospital both significantly improve rates of exclusive breast feeding up to six months after delivery. Postnatal support was marginally more effective than antenatal education. One RCT[136] assessed the effect of breastfeeding counselling by peer counsellors in sub-Saharan Africa. The authors concluded that low-intensity individual breastfeeding peer counselling is achievable and,			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
although it does not affect diarrhoea prevalence, can be used to effectively increase exclusive breastfeeding (EBF) prevalence in many sub-Saharan African settings. One RCT[137] investigated whether an education and counselling intervention provided by a lactation consultant-peer counsellor team increased breastfeeding initiation and duration up to 6 months postpartum among adolescent mothers. Results showed that the intervention positively influenced breastfeeding duration within the experimental group, but not breastfeeding initiation or exclusive breastfeeding rates. <u>Prevention and treatment of breast feeding problems</u> One RCT[138] assessed the effectiveness of peppermint water in the prevention of nipple cracks during breastfeeding in comparison with the application of expressed breast milk (EBM). The study concluded that peppermint water is effective in the prevention of nipple pain and damage. One Cochrane review[139] on the best forms of treatment for women who experience breast engorgement was			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
identified. The authors concluded that although some interventions may be promising, there is not sufficient evidence from trials on any intervention to justify widespread implementation One RCT[140] evaluated the efficacy of oral administration of two lactobacilli strains isolated from breast milk to treat lactational mastitis, compared to antibiotic therapy. The conclusion was that the use of the two lactobacilli strains appeared to be an efficient alternative to the use of commonly prescribed antibiotics for the treatment of infectious mastitis during lactation A Cochrane review[141] to assess the effects of preventive strategies for mastitis and the subsequent effect on breastfeeding duration was identified. The authors concluded that there was insufficient evidence to show effectiveness of any of the interventions, including breastfeeding education, pharmacological treatments and alternative therapies, regarding the occurrence of mastitis or breastfeeding exclusivity and duration. One study[142] evaluated the effects of Baby Friendly Initiative community training on breastfeeding rates among			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
staff and mothers in a large Primary Care Trust. Results showed improvements in staff and mothers' breastfeeding attitudes, knowledge and self-efficacy after attending the course, in addition to increases in the appropriate management of breastfeeding problems One Cochrane review[143] on the effectiveness of antibiotic therapies in relieving symptoms for breastfeeding women with mastitis with or without laboratory investigation was identified. The authors' conclusion was that there is insufficient evidence to confirm or refute the effectiveness of antibiotic therapy for the treatment of lactational mastitis. One RCT[144] compared acupuncture treatment and care interventions for the relief of inflammatory symptoms of the breast during lactation. The authors concluded that where acupuncture is acceptable to the mother, this, together with care interventions such as correction of breast feeding position and babies' attachment to the breast, might be a more expedient and less invasive choice of treatment than the use of oxytocin nasal spray.			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
One prospective cohort study[145] reported on mastitis in the first six months postpartum in a Scottish population; its impact on breastfeeding duration and the appropriateness of the support and management received by affected women from health professionals. The authors concluded that approximately one in six women is likely to experience one or more episodes of mastitis whilst breastfeeding and a small but clinically important proportion of women continue to receive inappropriate management advice from health professionals which, if followed, could lead them to unnecessarily deprive their infants prematurely of the known nutritional and immunological benefits of breast milk. <u>Expression and storage of breast milk</u> One Cochrane review[146] on methods of expression of breast milk was identified. The authors concluded that mothers appeared to obtain greater total volumes of milk in six days after birth using the electric or foot powered pump compared to hand expression, a greater volume at one expression during the second week when provided with a relaxation tape and			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
that simultaneous pumping takes less time compared to sequential pumping One study[147] that was done to determine whether an electric breast pump (vs. a manual pump) would increase breastfeeding duration in those returning to work or school full-time was identified. The authors' findings suggest that the manual breast pump may work as well as the electric breast pump when breastfeeding is encouraged and supported among women returning to work or school full-time <u>Information and community support</u> An RCT[148] investigated whether a knowledge sharing practices program on antenatal education and postnatal support improved the rates of exclusive breastfeeding during the first six months postpartum compared with a standard knowledge of breastfeeding techniques. Results showed that rates of exclusive breastfeeding in the study group were significantly higher when compared with those in the control group at 14 days, 1, 2, 4, 5, and 6 months postpartum. One RCT[149] on the efficacy of			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
postpartum breastfeeding counselling to increase exclusive breastfeeding among term low birth weight infants showed that there was an increase in the median duration of exclusive breastfeeding among mothers who received the intervention. The authors concluded that early and sustained breastfeeding support will enable mothers to exclusively breastfeed low birth weight infants for the first six months. One systematic review[150] investigated the effect of pre- and post-discharge interventions on breastfeeding outcomes and weight gain among preterm babies. The authors concluded that the interventions were effective in promoting breastfeeding exclusivity, duration, and maternal satisfaction among mothers of preterm babies One study[151] aimed to determine the effects of breastfeeding education/support offered at home on day 3 postpartum on breastfeeding duration and knowledge. Findings were that breastfeeding education offered at home on day 3 postpartum was effective in increasing the breastfeeding duration and			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
breastfeeding knowledge One study[152] using data from a trial that assessed the efficacy of breastfeeding peer counselling showed among others that women who had the intention to engage in exclusive breastfeeding (EBF) antenatally were more likely to do so and that at 2 months postpartum, mothers who were breastfed as children were more likely to engage in EBF. One Cochrane review[153] on the effectiveness of support for breastfeeding mothers was identified. Results showed that additional professional support to women who had decided to breastfeed was effective in prolonging any breastfeeding, but its effects on exclusive breastfeeding were less clear. Additional lay support to the same category of women was effective in prolonging exclusive breastfeeding, while its effects on duration of any breastfeeding were uncertain. One RCT[154] was identified that determined whether assigning mixed feeders to a breastfeeding clinic within 1 week postpartum will increase			

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
exclusive breastfeeding at 1 month. Results at 4 weeks postpartum indicated that the intervention group was more likely to be exclusively breastfeeding and that the intervention group was less likely to supplement with water and tea. One study[155] investigated whether postpartum visits by trained community health workers (CHWs) reduce newborn breastfeeding problems. The authors concluded that counseling and hands-on support on breastfeeding techniques by trained workers within first 3 days of birth should be part of community-based postpartum interventions			
Infant health			
<u>Vitamin K prophylaxis</u> One RCT[190] assessed vitamin K status and metabolism in preterm babies. The authors concluded that breastfed preterm babies who are given a 0.2mg dose of prophylaxis should receive additional supplementation when feeding has been established <u>Reducing the risk of sudden infant death syndrome (SIDS)</u> One systematic review[191] on interventions to reduce the risk of	<u>Parenting and emotional attachment</u> A Cochrane review[193] of postnatal parental education for optimising infant general health and parent-infant relationships found that education related to sleep enhancement increases infant sleep but has no effect on infant crying time, that education about infant behaviour potentially enhances mothers' knowledge; however more and larger, well-designed studies are needed to confirm these findings.	No clinical feedback was provided through the GDG questionnaire that was related to this section of the guideline	New studies were found relating to parenting and emotional attachment (including postnatal education), infantile colic, home visiting and infant massage. However, the Cochrane review on postnatal educational was inconclusive while the Cochrane review on infant massage found no evidence to support its use in low-risk groups. The results of a small RCT found *L. reuteri* to be effective

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SIDS was identified. The conclusion was to avoid prone sleeping, tobacco-smoke exposure, soft sleeping surfaces, overheating or overwrapping and bed sharing, and to encourage breastfeeding, to promote soother/pacifier use and to promote room sharing (without bed sharing) <u>Infant skin-cleansing product versus water</u> One pilot RCT[192] investigated whether bathing newborn babies with a specific cleaning product is superior to bathing with water and cotton wool. Results showed similar rates of transepidermal water loss at 4 and 8 weeks after birth between the two groups. The authors concluded that the decision to proceed with a superiority trial was not consistent with the findings and as such a non-inferiority trial was recommended	An RCT[194] of community doula services or routine medical and social services for young mothers found that doula support promotes parenting and positive mother-infant relationships. <u>Infantile colic</u> One small RCT[195] comparing the effectiveness of *lactobacillus reuteri*, herbal drop and placebo, all combined with baby massage, on infantile colic found a significant decrease in crying times at week 3 in the *L. reuteri* group. <u>Home visiting</u> Four RCTs of home visiting by nurses or midwives compared with control groups indicated reduced emergency medical care[196], improve maternal/infant interaction and decrease severity of postpartum depression[197], some breastfeeding benefits[198,101] and improved maternal healthy behaviours[199]. In addition, one Cochrane review[200] found that postnatal home visits may promote infant health and maternal satisfaction. However, the frequency, timing, duration and intensity of such postnatal care visits should be based upon local needs. Conversely, one RCT[201] of nurse-community health worker or standard community care		as a treatment strategy for crying in infants with colic, however this is a small study and further consistent evidence is needed before considering the inclusion of this probiotic in the guideline. The studies on home visiting are mainly in line with the guideline recommendations which state that "home visits should be used as an opportunity to promote parent- or mother-to-baby emotional attachment" and that "all home visits should be used as an opportunity to assess relevant safety issues for all family members in the home and environment and promote safety education". Hence, the identified new evidence would not change the direction of current recommendations.

Conclusion from the previous 5-year surveillance review	Is there any new evidence/intelligence identified during this 8-year surveillance review (2014) that may change this conclusion?	Clinical feedback from the GDG at the current 8-year surveillance time point	Conclusion of this 8-year surveillance review (2014)
	home visitation programme found no strong evidence that infant health was improved by the addition of community health workers to a programme of standard community care that included nurse home visitation. <u>Infant massage (new intervention, not included in original guideline)</u> A Cochrane review[202] found no evidence to support the use of infant massage in low-risk groups of parents and in low-risk, typically developing infants under the age of six months. The authors suggested that future research should focus on the impact of infant massage in higher-risk groups (for example, demographically and socially deprived parent-infant dyads), where there may be more potential for change.		

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