

Summary of Recommendations from Relevant Guidelines on Best Practices for Postnatal Care: Rapid Evidence Synthesis

This document is a supplement to the rapid policy brief on the issue.

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Competing interests

The authors do not have any relevant competing interests.

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List of abbreviations

AAFP	<i>American Academy of Family Physicians</i>
ACOG	<i>American College of Obstetrics and Gynaecologists</i>
ANM	<i>Auxiliary nurse midwife</i>
ASHA	<i>Accredited Social Health Activist</i>
CHWs	<i>Community Health Workers</i>
LHW	<i>Lay Health Worker</i>
LHV	<i>Lady Health Visitor</i>
LMICs	<i>Low- and Middle-Income Countries</i>
MNH	<i>Maternal and Newborn Health</i>
MoHFW	<i>Ministry of Health and Family Welfare, Government of India</i>
MPHW	<i>MultiPurpose Health Worker - Female</i>
NICE	<i>National Institute for Health and Care Excellence, UK</i>
PHC	<i>Primary Health Care</i>
PICO	<i>Population, Interventions, Comparisons and Outcomes</i>
PNC	<i>PostNatal Care</i>
PPC	<i>PostPartum Care</i>
SBA	<i>Skilled Birth Attendant</i>
TBA	<i>Traditional Birth Attendant</i>
WHO	<i>World Health Organization</i>

Executive Summary

The World Health Organization defines postnatal period (or postpartum, if in reference to the mother only) as the period beginning one hour after the delivery of the placenta up until six weeks or 42 days after birth. The postnatal period is critical for the health and survival of both the mother and the newborn, and therefore improving maternal and newborn health outcomes requires strengthening of existing evidence-based interventions in postnatal care.

The District Medical Officer (DMO) in Malappuram, Kerala proposes to change some of the existing unhealthy and harmful practices, particularly related to breastfeeding and nutrition. The aim is to achieve this through identifying postnatal care best practices that would aid in the design of training modules for mothers and their postnatal lay health worker attendants. The primary outcomes of interest included improved nutrition and breastfeeding practices.

This rapid evidence synthesis provides a summary of recommendations from existing and updated guidelines. The summary focusses on some key aspects of postnatal care including support and promotion of early initiation and continued breastfeeding, nutrition, postnatal visits, and family planning.

Overall, guidelines reiterate the need for counselling and supportive environment for various aspects of postnatal care, including postnatal home visits, initiation and continuation of breastfeeding, healthy nutrition practices, personal hygiene, and family planning. The guidelines recommend early initiation and continuation of exclusive breastfeeding for at least the first six months, post childbirth. Further, mothers should be counselled on some of the common problems associated with breastfeeding. Similarly, mothers should be counselled on appropriate nutritional aspect post childbirth and recommend iron and folic acid supplementation after dietary assessment.

Healthy practices related to mothers' personal care and hygiene include proper perineal care and hand hygiene. Mothers should ensure proper hand hygiene before and after handling the baby and when feeding the baby. Counselling and appropriate information should be provided to parents on other aspects of postnatal care such as family planning, contraceptive methods and immunisation. Further, mothers should be provided information on observing for danger signs that may arise due to complications post childbirth. The signs and symptoms may include excessive bleeding, fever, abdominal pain, and foul-smelling vaginal discharge.

Recommendations from several existing guidelines reiterate the need for best practices during postnatal period to improve maternal and newborn health outcomes.

Background

The World Health Organization (WHO) states that the postnatal period begins immediately after childbirth and lasts for around six weeks (approximately 42 days). (1-3) The postnatal period is considered a critical phase in the lives of mothers and newborns. (WHO 2017) Therefore, the WHO recommends that a mother and her newborn should start receiving appropriate postnatal care (PNC) within 24 hours of the birth. (1-3) The literature suggests that some of the key aspects of PNC include attention to the physical and mental health of the mother, and nutrition breastfeeding support. (1-4) Literature suggests that the aim of PNC (beyond the immediate peripartum phase) is to detect any health problems of mother and/or baby at an early stage, and to encourage breastfeeding. (1, 4, 5)

Timely and high-quality postnatal care and support are essential for optimising maternal and newborn health. Postnatal visits provide an opportunity for health care workers to facilitate healthy breastfeeding practices, monitor the newborn's overall health status, counsel mothers about contraception options and refer the mother and baby for specialised care, if required. (1, 2, 4, 6) Other benefits of postnatal visits include screening for postpartum depression and treating childbirth-related complications, (1, 4, 5) which are generally carried out by skilled and trained higher level health professionals.

The evidence on the benefits of breastfeeding is beyond argument and have been well documented. There is considerable evidence that supports its benefit, in terms of protecting babies against gastroenteritis, urinary, respiratory and middle ear infections, and childhood diabetes and obesity. Reduced risk of premenopausal breast cancer and some forms of ovarian cancer are some of the maternal benefits with breastfeeding. (7)

Majority of the Low- and Middle-Income Countries (LMICs) seek to optimise the delivery of key maternal and newborn (MNH) interventions to improve maternal and newborn health. The WHO recognises that optimising the role of health workers other than skilled birth attendants could help fill the human resource gap in resource-limited settings for providing MNH care, where relevant and applicable. Lay Health Workers (LHWs) could be considered for postnatal care, with appropriate training. The World Health Organization defines a LHW as "any health worker who performs functions related to health-care delivery; was trained in some way in the context of the intervention; but has received no formal professional or paraprofessional certificate or tertiary education degree". (8)

Rapid Evidence Synthesis (RES) is a pragmatic form of research synthesis that is intended to inform, guide and support specific decision-making needs of policy-makers in a time-sensitive and cost-effective manner. RES aims to provide a summary of the best available research evidence, contextualised to the actual requirements of decision making, where possible.

In the context of PNC for women and their babies, evidence-based guidelines have the potential to enhance care. In addition, guidelines not only provide advice for management in a clinical situation but may also have an impact at a policy level (ensuring consistent care across health care sectors and professions). However, implementation of guidelines in policy and practice requires a comprehensive approach that considers local policies and contextual issues.(9) The evidence included in the RES has been aligned as much as possible to LMIC context.

The objective of this RES was to identify and summarise the recommendations from relevant guidelines from norm-setting institutions on best practices related to PNC to be encouraged by LHWs/attendants. The RES focussed on some of the key aspects of PNC, such as breastfeeding, nutrition, postnatal visits, and contraception/family planning. Other aspects related to PNC such as psychosocial well-being (e.g. postnatal depression), chronic disease management, prophylactic antibiotic therapy, and treatment of maternal and newborn health complications are outside the remit of this RES.

1. Methods

This section describes the methods used in the development of the policy brief.

Inclusion Criteria (PICO)

We included guidelines which met the following criteria.

Population

Focussing on recommendations for health professionals including LHWs in the postnatal period (up to 40 days/6-8 weeks post-childbirth).

Domain

Best practices for PNC (which may include frequency and timing of postnatal contacts, counselling, supplementation, etc).

Outcomes

Primary outcomes of interest include breastfeeding and nutrition. Other commonly assessed relevant maternal health outcomes were considered but not defined specifically a priority.

Study designs

Guidelines from relevant norm-setting institutions/organisations at national and global level.

Search methods

A comprehensive search was conducted in electronic health literature databases such as PubMed and EMBASE. Search strategies for each database are provided in Appendix 1. Unpublished literature from various sources including relevant organisation websites and Google Scholar were searched to identify guidelines. The sources included websites of relevant organisations such as the WHO (WHO Library Database (WHOLIS), HINARI); National Institute of Health and Care Excellence (NICE), UK; Guidelines Clearinghouse (NGC); Guidelines International Network (GIN); American College of Obstetrics and Gynaecologists (ACOG), USA; Royal College of Obstetricians and Gynaecologists, UK; Scottish Intercollegiate Guidelines Network (SIGN); Geneva Foundation for Medical Education and Research (Obstetrics and gynaecology guidelines); Ministry of Health and Family Welfare (MoHFW); and other relevant Networks. The search was restricted to guidelines published in English language. No date limits were applied.

Data collection and analysis

Selection of studies

The titles and abstracts of best practice documents for inclusion were screened, which then enabled retrieval of full texts of eligible guidelines for examination and selection. An experienced reviewer independently applied the inclusion criteria to the retrieved publications. Further, to be included in this review report, the guidelines had to outline recommendations for care on postpartum care with a focus on breastfeeding, nutrition, postnatal contacts/visits, hygiene, and contraception/family planning.

Assessment of risk of bias in included studies

Objective evaluation of the quality of each guideline using standardised checklists was not conducted.

Data extraction

Relevant data extracted from the guidelines included: objective and/or focus of the guideline, health care professionals/workers, and best practices in relation to breastfeeding and nutrition.

Data Synthesis

A narrative summary is presented to address the review objective and document relevant findings.

2. Results

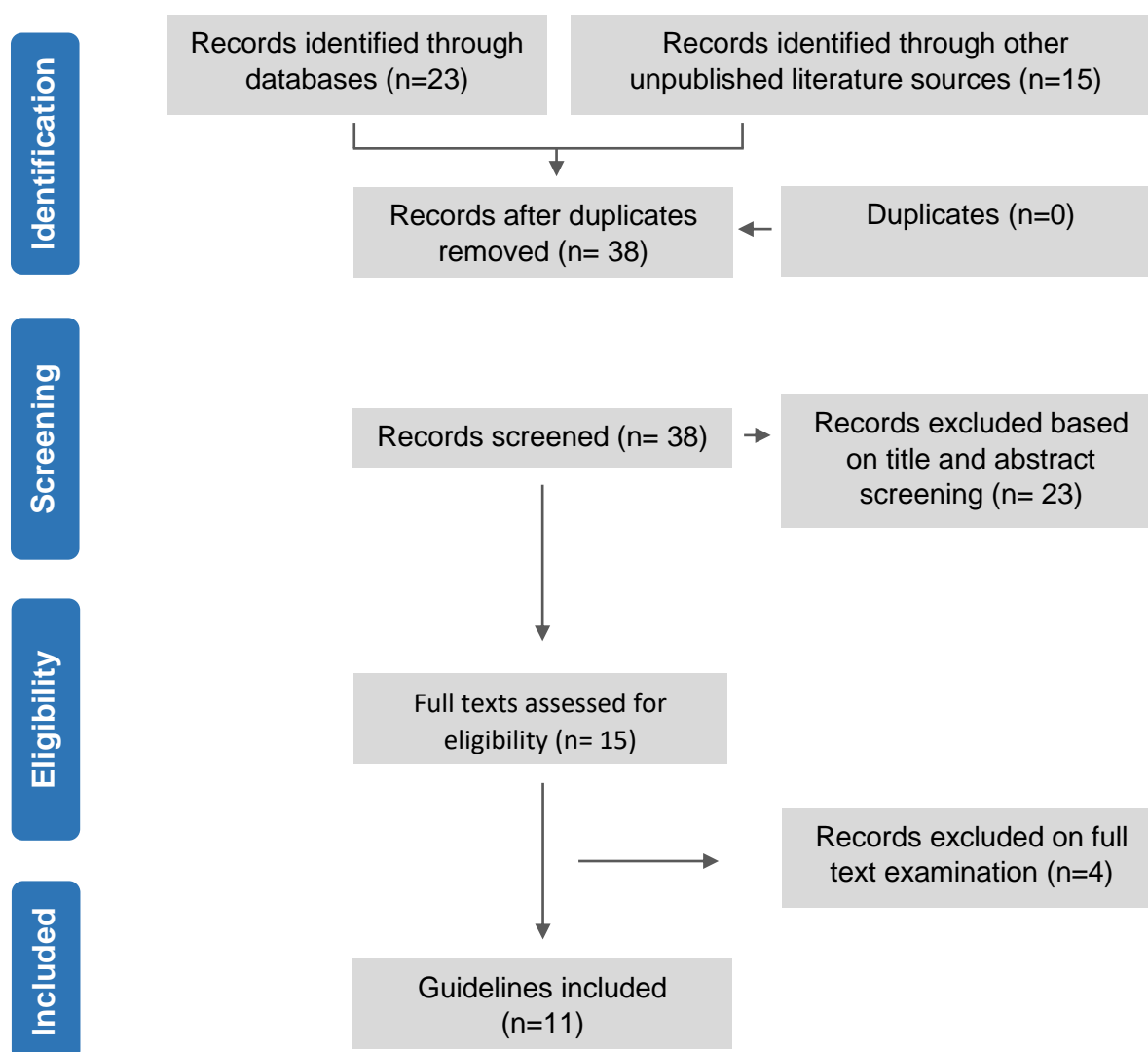
Description of studies

Search results and study selection

The search for PNC best practice guidelines yielded 38 documents. The initial title and abstract review excluded most of these documents due to their limited specificity (i.e., focus on postpartum care to HIV positive mothers, postnatal depression, etc.) and lack of guidelines in the articles (e.g., opinion focused etc.).

Fifteen documents remained after the initial review, which were then examined further. Following full text examination, 11 guidelines from 2010 to 2018 were included in this review report. Four guidelines were excluded as they were either repeats of more updated versions were available. Figure 1 shows the flow diagram for the search and study selection process.

Figure 1 PRISMA Study Selection Flow Chart



Summary of included guidelines

The 11 guidelines that focussed the various aspects of interest related to postpartum care were from the World Health Organization (WHO); the National Institute for Health and Care Excellence (NICE); the American College of Obstetrics and Gynaecologists (ACOG); the American Academy of Family Physicians (AAFP); and the Ministry of Health and Family Welfare (MoHFW), Government of India. All recommendations related to postnatal care were primarily designed for health care professionals (including skilled birth attendants, nurses) interacting with postpartum women as well as for other frontline health workers, as applicable.

Several updated global guidelines on PNC for mothers and newborns were recently published through synthesis of literature and a technical consultation process. Majority of these guidelines address various aspects of PNC for mothers and newborns with a focus on resource-limited settings and/or LMICs. The scope of the guidelines did not vary significantly. Majority of the recommendations related to postnatal visits and breastfeeding in the WHO and NICE guidelines were graded as strong recommendations but based on low quality evidence. Other recommendations were based on consensus of guidelines review panel. Table 1 provides a snapshot of the existing (new and updated) guidelines published by different norm-setting institutions, mainly the WHO and the NICE.

Table 1 A snapshot of the guidelines on postnatal care best practices

Guideline organisation, year	Guideline objective	Target healthcare professionals/workers
1. WHO 2018(6)	Breastfeeding counselling, including frequency, timing, mode and provider of breastfeeding counselling, to improve breastfeeding practices	Policy-makers, their expert advisers, and technical and programme staff at government institutions and organizations involved in the design, implementation and scaling up of programmes for breastfeeding counselling and nutrition-sensitive actions of infant and young child feeding programmes
2. ACOG 2018(5)	Optimising postpartum care	Primary maternal care provider
3. WHO 2017(2)	What health behaviours should the women practise (or not practise) during the postnatal period to care for herself and her baby	Policy-makers, programme managers, and health professionals for providing postnatal care to women and newborns, primarily in areas where resources are limited
4. WHO 2017(3)	What health behaviours should a mother/caregiver practise (or not practise) in the postnatal period to care for her newborn baby?	Policy-makers, programme managers, and health professionals for providing postnatal care to women and newborns, primarily in areas where resources are limited
5. AAFP 2017(10)	Family physician's role in supporting breastfeeding	Family physicians
6. WHO 2015(1)	To guide health care professionals in the management of women during pregnancy, childbirth and postpartum	SBAs working at the primary level of health care, either at the facility or in the community

7. NICE 2015(4)	To identify the essential core (routine) care that every woman and her baby should receive in the first 6–8 weeks after birth	All healthcare professionals who care for mothers and babies
8. NICE 2014(11)	Breastfeeding and nutrition guidance for pregnant women, mothers and children from low-income and other disadvantaged backgrounds	Health care professionals involved in the nutrition of pregnant and breastfeeding mothers
9. MoHFW 2014(12)	To ensure that all newborns are provided with home-based care, through a series of visits by the ASHA	Accredited Social Health Activists (ASHAs)
10. WHO 2012(8)	To optimise the role of lay health workers to improve access to key maternal and newborn health interventions	LHWs, auxiliary nurse midwives (ANMs), auxiliary nurse, midwife, non-specialist doctor
11. MoHFW, India 2010(13)	Provision of skilled attendance during pregnancy and at birth by providers other than the SBAs.	ANMs, the multi-purpose health worker female (MPW-F), the lady health visitor (LHV), or any other paramedical health worker who is engaged in providing maternal care at the village level

A summary of the recommendations from all the included guidelines focussing on key areas of interest related to PNC is provided below.

Postnatal visits/contacts (2, 3, 5)

- The ACOG (2018) and the World Health Organization (2017) recommend an initial postpartum visit within the first 3 weeks after birth or earlier for mothers with comorbidities and/or complications.
- It is essential that home visits take place in the first week after birth for care of the mother and newborn.

Number and timing of postnatal contacts (2, 3)

- It is recommended that mothers and newborns receive postnatal care for at least 24 hours after birth in a health facility.
- The first postnatal contact should be as soon as possible within 24 hours of birth if birth is at home.
- Further, a minimum of three postnatal contacts are recommended for all mothers and newborns, on day 3 (48–72 hours), between days 7–14 after birth, and six weeks after birth.
- In the case of babies with low birth weight (LBW), three additional visits, on days 14, 21 and 28 are recommended.

Postnatal care and hygiene (1, 5, 13)

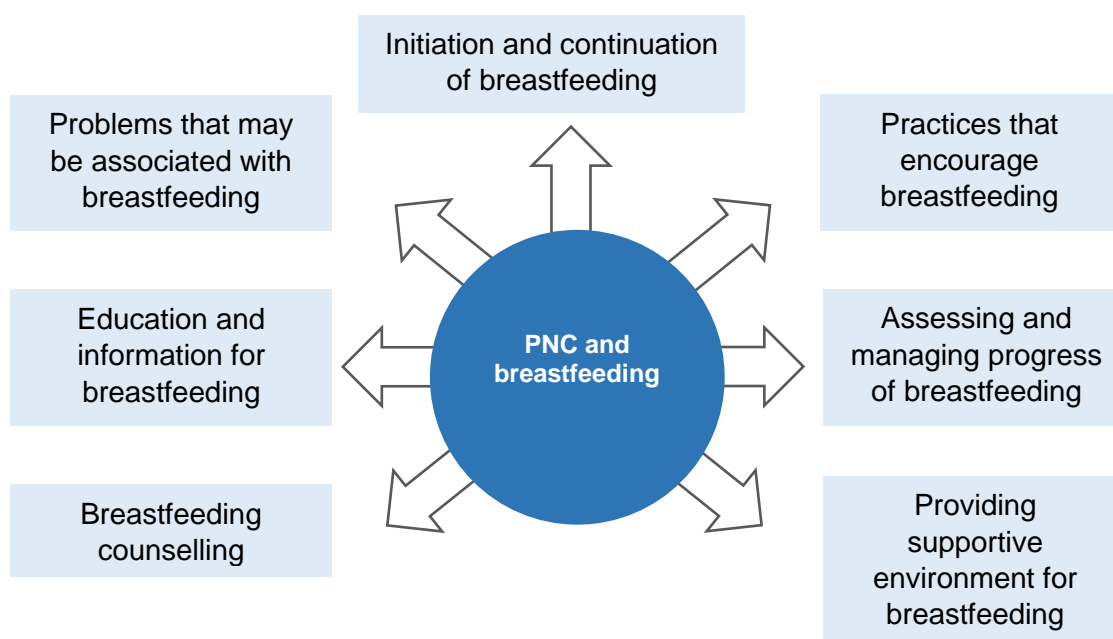
- Mothers should wash their hands before and after handling the babies, especially after cleaning and before feeding the baby.
- Rooming in of the mother with the baby is recommended.
- Mothers should be advised on how to look after their babies, e.g. how to bathe the newborn, maintain warmth and exclusive breastfeeding.
- Mothers should wash the perineum daily and after passing stools.

- To prevent infection, mothers should change the perineal pads every 4–6 hours or more frequently if there is heavy vaginal discharge containing blood, mucus, and uterine tissue.
- The use of disposable sanitary pads is recommended. Cloth pads, if used should be washed with soap and water and dried in the sun.
- Mothers should bathe at least once daily.
- Mothers should get enough sleep and take adequate rest.

Breastfeeding (1-5, 10-12)

Almost all the guidelines provided recommendations regarding breastfeeding. Key areas covered included breastfeeding promotion and initiation and common problems mothers experience. Figure 2 shows some of the key aspects of breastfeeding relevant during PNC, as identified from the guidelines.

Figure 2 Key aspects of breastfeeding relevant during PNC



Initiation and continuation of breastfeeding (1-4, 10, 11, 13)

- As soon as possible after the birth, within the first hour, women should be encouraged to have skin-to-skin contact with their babies (when they are clinically stable) for warmth and the initiation of breastfeeding.
- Exclusive breastfeeding should be encouraged to continue for about the first six months of a baby's life, and if mutually desired by the mother and the baby.
- It is recommended that mothers breastfeed frequently, i.e. at least 6–8 times during the day and 2–3 times during the night.
- Breastfeeding in combination with the introduction of complementary foods, including iron-rich foods until at least 12 months of age should be encouraged.
- Breastfeeding babies and mothers should be seen for follow-up within a few days after birth.
- Mothers should be prepared for transitioning their infants to complementary foods with continued breastfeeding up until 6 months.

Practices that encourage breastfeeding

- Mothers should be advised of the indicators of good attachment, positioning and successful feeding.
- Mothers should be advised that if their baby is not attaching effectively, the baby may be encouraged to breastfeed (for example by the mother teasing the baby's lips with the nipple to get him or her to open their mouth).
- Mothers should be advised that babies generally stop feeding when they are satisfied, which may follow a feed from only one breast. However, babies should be offered the second breast in case they do not appear to be satisfied following a feed from one breast.
- Mothers should be reassured that brief discomfort at the start of feeds in the first few days is not uncommon.
- Unrestricted breastfeeding frequency and duration should be encouraged.

Assessing and managing progress of breastfeeding

- It is recommended that breastfeeding progress is assessed at each postnatal contact.
- A mother's experience with breastfeeding should be discussed at each postnatal contact to assess if she is able to breastfeed effectively and to identify any need for further support. The progress should be assessed and documented at each contact.
- If a mother perceives insufficiency of milk, it is recommended to review the attachment and positioning, in addition to evaluating her baby's health. It is also important to reassure and support the woman to gain confidence in her ability to produce enough milk for her baby.
- If the baby is not taking enough milk directly from the breast and if there is a need for supplementary feeds, expressed breast milk should be given by a cup or bottle. However, supplementation with fluids other than breast milk is not recommended.

Providing a supportive environment for breastfeeding

- Breastfeeding support should be made available regardless of the location of care, and a health worker should be able to support mothers in starting and maintaining breastfeeding.
- Breastfeeding mothers should be shown how to hand express their colostrum or breast milk. Further, they should be advised on how to correctly store and freeze it.
- Mothers who use a breast pump should be offered instructions on how to use it.

Breastfeeding Counselling (1-3, 6, 12)

- Mothers should be counselled and provided support for exclusive breastfeeding after birth (at each postnatal contact) and up to 24 months is recommended.
- Breastfeeding counselling (face-to-face) should be provided at least six times, and additionally as deemed necessary. The six breastfeeding counselling contacts may be scheduled at the following time points: before birth (antenatal period); during and immediately after birth (perinatal period up to the first 2–3 days after birth); at 1–2 weeks after birth (neonatal period); in the first 3–4 months (early infancy); at 6 months (at the start of complementary feeding); and after 6 months (late infancy and early childhood).

- Breastfeeding counselling should be provided as a continuum of care, by appropriately trained health-care professionals and community-based lay and peer breastfeeding counsellors.
- Postnatal breastfeeding counselling supports mothers in enabling them to bond with their baby, with skin-to-skin contact and responsive feeding.
- An essential first step for breastfeeding counselling to be effective is the availability and access to a good training and mentoring programme, for both lay and non-lay counsellors.
- Counselling mothers on key messages related to newborn care may include discouraging unhealthy practices such as bottle feeding.
- Counselling may be required in case of problems with breastfeeding.

Education and information for breastfeeding (4, 11, 12)

- Written breastfeeding education materials are not recommended as a stand-alone intervention.
- Mothers should be given culturally appropriate information on the benefits of breastfeeding, the benefits of colostrum and the timing of the first breastfeed, within the first 24 hours after birth.
- Mothers should be taught proper positioning and attachment to support exclusive breastfeeding.
- Midwives, other health workers and support workers should be trained in breastfeeding management, as part of their continuing professional development.

Problems that may be associated with breastfeeding (1-3)

- All health care professionals and workers who regularly care for mothers and babies should assist with normal breastfeeding and common breastfeeding challenges. Patients should be referred to health professionals with a higher level of expertise, (e.g. Lactation Consultant), if challenges exceed the expertise of those who provide regular care.
- Mothers should be advised and provided information on preventing, identifying and treating breastfeeding concerns (e.g. nipple pain, engorgement, mastitis, etc).
- Mothers should be advised that the nipples may be painful or cracked, due to incorrect attachment. However, assessment for thrush should be considered if nipple pain persists even after repositioning and re-attachment.
- Mothers should be advised that their breasts may feel tender, firm and painful when milk comes in at or around 3 days post-birth.
- Mothers should be advised to wear a well-fitted bra that does not restrict her breasts.
- Mothers who are not breastfeeding at all should be advised on how to relieve engorgement. However, if breast engorgement persists, it should be treated with:
 - frequent unlimited breastfeeding that may include prolonged feeding from the affected breast;
 - breast massage and, hand expression, if necessary; and analgesia.
- It is essential that mothers be advised to report any signs and symptoms of mastitis (e.g. flu like symptoms, red, tender and painful breasts) to their healthcare professional, as soon as possible.

- Women with signs and symptoms of mastitis should be helped with positioning and attachment and advised to:
 - continue breastfeeding and/or hand expression to ensure effective milk removal (gentle massaging of the breast to overcome any blockage may be necessary);
 - analgesia (e.g. paracetamol) compatible with breastfeeding; and increase fluid intake.
- A mother should be advised to contact her healthcare professional, as soon as possible, if the signs and symptoms of mastitis persist for more than a few hours, even after self-management. In some cases, antibiotic therapy may be needed.
- Extra support and care should be provided to mothers with inverted nipples to ensure successful breastfeeding.
- Babies who appear to have ankyloglossia should be evaluated further by a skilled healthcare professional or peer counsellor, after a review of positioning and attachment.
- Skin-to-skin contact or massaging a baby's feet should be advised to wake the baby from sleep for breastfeeding.

Nutrition (1-3, 13)

- The WHO recommends that mothers be counselled appropriately on nutritional aspects post-birth.
- Mothers should be advised to increase their intake of food and fluids.
- It is essential to assess dietary habits, and provide counselling on recommended changes, based on the identification of problems or risk factors. A tailored plan may be required if diet or physical activity changes are needed.
- Mothers should be advised to take foods rich in calories, proteins, iron, vitamins and other micro-nutrients (a list of relevant food products should be provided).
- Iron and folic acid supplementation should be provided for at least three months post child birth.
 - The national standards, and training curricula on postnatal iron and folic acid supplementation for postnatal mothers should be reviewed.
 - Iron and folic acid distribution and compliance should be encouraged and strengthened among postnatal mothers.
 - Vitamin A supplementation for postnatal women is not recommended. Mothers should be encouraged to transition to dietary sources of vitamin A.
- Mothers should be advised to eat a variety of healthy foods (in greater amounts), including meat, fish, oils, nuts, seeds, cereals, beans, vegetables, cheese, milk, to help her feel well and strong. Health workers providing care should be able to provide examples of types of healthy foods and how much to eat.
- Mothers should be reassured that they can eat normal foods, as these will not harm the breastfeeding baby. However, it is important to determine at first, if there are taboos about certain foods that are nutritionally healthy and advise the mothers against these taboos (e.g. the taboo against eating solid food for six days(13)).
- Health workers should spend more time on nutrition counselling, particularly with very thin women and adolescents.
- The national standards, and training curricula for health care workers should be reviewed to ensure adequate counselling skills on nutrition, provided in the context

of local practices and taboos. The review and quality control will help in emphasising and providing key postnatal nutrition messages.

Family planning/Contraception and Immunisation (2, 13)

- It is recommended that the couple abstain from sexual intercourse for about 6 weeks post-partum, or till the perineal wounds heal.
- Parents should be advised on birth spacing and/or limiting the size of their family.
- Inform and provide information to the parents about the various contraceptive options available and help them choose the method most suitable to them. Contraceptive methods should be provided, if requested and possible.
- Mothers should be counselled and provided information on where and when to take the baby for immunisation.

Danger signs (2, 13)

Mothers should be counselled to go to the appropriate first referral unit if they notice the following danger signs:

- Excessive bleeding observed through soaking more than 2–3 pads in 20–30 minutes after delivery.
- Convulsions
- Fever and headaches
- Severe abdominal pain
- Shortness of breath
- Chest pain
- Foul-smelling vaginal discharge (lochia)

Optimising the role of lay health workers (LHWs) (8)

- The WHO recommends the use of LHWs to promote exclusive breastfeeding, adequate nutrition and provision of iron and folate supplements during pregnancy.
- Based on the evidence, the WHO states that use of LHWs to promote behaviours and services for maternal and child health is probably effective, acceptable and feasible. Further, their use may also reduce inequalities by extending access and care to underserved populations and in resource limited settings.
- However, policy makers and programme managers need to consider several issues related to task sharing and the expansion of LHW roles and responsibilities. These may include but not limited to the distribution of roles among cadres, stakeholder involvement, training and supervision, systems for referral, supply chains, and possible changes to payments or other incentives.
- The WHO recommends additional implementation considerations when considering the use of LHWs:
 - Appropriate training is essential for LHWs and their trainers and supervisors in terms of information content, counselling and communication skills. Tools, techniques and resources may be provided that when communicating with community members.
 - Mother and their families receiving care may find LHWs from their own community acceptable, and in some cases culturally appropriate. However, if LHWs come from the same local communities as care recipients, concerns

related to confidentiality may arise. Therefore, this issue needs to be addressed during LHW selection and training.

3. Conclusion

Appropriate postnatal care plays an important role in improving maternal and newborn health outcomes. Several challenges exist in LMICs, mainly in terms of access to care and support, and provision of appropriate information to mothers and their families. Using evidence-informed guidance, such as recommendations from the WHO and the NICE can help health workforce in LMICs to overcome some of these challenges. However, the recommendations from these guidelines require a consideration of local context. The guidance and recommendations from the MoHFW (India) guidelines help fill this gap to an extent. In addition, local factors including beliefs and practices should be taken into consideration to help deliver tailored and culturally appropriate PNC best practices.

The duration and exclusivity of breastfeeding is increased when breastfeeding support is offered to women. Effective support may include: providing appropriate and relevant information during postnatal care; scheduling ongoing visits so that women can predict when support will be available; and tailoring care to the setting and the needs of the population group. There is evidence to suggest that support may be offered either by professional or lay/peer supporters, or a combination of both. Further, strategies that involve face-to-face support are found to more likely to succeed with women practising exclusive breastfeeding.

4. Recommendations for future research

None of the included guidelines provided specific and comprehensive best practice recommendations specifically for lay health workers. Guidelines in future may consider a separate section to provide guidance for lay health workers and other untrained frontline health workers, particularly for those in LMICs.

5. Strengths and limitations of the review

- Strengths of the current review of guidelines include the comprehensive search strategy, based on four separate databases, particularly the focussed, topic-oriented searches conducted. In addition, guidelines from additional unpublished sources were also searched for.
- An appraisal of the included guidelines using a standardised checklist would have been beneficial to understand the quality and reporting of the included guidelines.

6. Next steps

Further dialogue and engagement with relevant stakeholders (obstetricians and gynaecologists, policy makers) for their input and endorsement are recommended. Dissemination and circulation of the policy brief report to key stakeholders may support this.

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8. Appendix

Appendix 1: Search Strategies

PubMed

No.	Search terms	No. of hits
#1	"postnatal care"[MeSH] OR "postnatal care"[tw] OR "post-natal care" OR "postpartum care" OR "postpartum program"[tw] OR puerperium OR "postpartum period" OR "postnatal period" OR "maternal care"	90244
#2	"practice guidelines as topic"[MeSH] OR guideline*[tw] OR "best practice*[tw]	456143
#3	"lay health worker*[tw] OR "LHWs"[tw] OR "lady health worker*[tw] OR "traditional birth attendant*[tw] OR "TBAs"[tw] OR "lay midwives"[tw] OR "lay midwife"[tw] OR "community health worker*[tw] OR "CHWs"[tw] OR "traditional midwives"[tw] OR "traditional midwife"[tw] OR "community health agent*[tw]	3229
#4	#1 AND #2 AND #3 Filters: English	10

EMBASE

No.	Search terms	No. of hits
#1	"postnatal care"/de OR "postnatal care" OR "post-natal care" OR "postpartum care" OR puerperium/de OR puerperium OR "postpartum period" OR "postnatal period" OR "maternal care"	194480
#2	"guideline*" OR "best practice"	753830
#3	"lay health worker*/de OR "lay health worker*" OR "LHWs" OR "lady health worker*" OR "traditional birth attendant*" OR "TBAs" OR "lay midwives" OR "lay midwife" OR "community health worker*" OR "CHWs" OR "traditional midwives" OR "traditional midwife" OR "community health agent"	7625
#4	#1 AND #2 AND #3 AND [embase]/lim NOT [medline]/lim	13

Google Scholar

No.	Search terms	No. of hits
#1	("postnatal care" OR "post-natal care" OR "postpartum care" OR puerperium OR "postpartum period" OR "postnatal period" OR "maternal care") AND (guideline* OR "best practice*") AND ("lay health worker*" OR "LHWs" OR "lady health worker*" OR "traditional birth attendant*" OR "TBAs" OR "lay midwives" OR "lay midwife" OR "community health worker*" OR "CHWs" OR "traditional midwives" OR "traditional midwife" OR "community health agent*")	230
#2	On manual screening of Title and Abstract in Google Scholar	1

Additional search from other unpublished/grey literature sources

Search terms used and number of relevant guidelines retrieved from other grey literature sources

No.	Search terms	Number
#1	(postpartum OR postnatal) AND (guidelines OR recommendations)	14