Improving Access to and Quality of Postpartum Contraception Provision

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Abstract

Sexual activity and fertility can resume shortly after childbirth, but there are barriers to contraceptive access in the postpartum period. Unintended pregnancy and short interpregnancy intervals (of less than one year) can increase the risk of obstetric and neonatal complications. The antenatal period presents an opportunity to discuss contraceptive options, many of which can be safely initiated immediately after childbirth. Successful delivery of a postpartum contraception program requires an adequate number of maternity staff trained to provide the full range of methods.

Keywords

- contraception
- postpartum contraception
- long-acting reversible contraception
- health service delivery

There is growing realization that we have underestimated a woman's need for effective contraception after childbirth. Fertility and sexual activity resume quickly in the postpartum period, yet women face additional barriers in accessing contraception at this time, as they are often preoccupied with caring for a new baby and recovering from childbirth. If a woman is not fully breastfeeding, ovulation can occur as early as 3 weeks' postpartum,[1] and by 6 weeks studies show that up to 50% of women have resumed sexual activity.[2]

Studies from several settings have shown that most women do not wish to conceive again within the year after birth,[3,4] yet pregnancies are not uncommon during this time. There is evidence to suggest that a significant proportion of pregnancies that occur in the year after childbirth are unintended.[3] In a study from Scotland, 1 in 13 women presenting for abortion had conceived within a year of a previous delivery.[3]

Furthermore, if conception occurs within the 12 months after childbirth, this constitutes a short interpregnancy interval. This short interval places the subsequent pregnancy at higher risk of complications such as preterm birth, low birthweight infants, and neonatal death[5]—a fact that women are often not made aware of by maternity providers.[6] It is for this reason that the World Health Organization recommends an optimal birth spacing of 2 years between pregnancies.[7] Many pregnancies that do occur during this time are unintended. In one U.S. study of almost 400 women experiencing a short interpregnancy interval, 76% reported that the pregnancy has been unintended at conception.[8] Short interpregnancy intervals also tend to disproportionately affect those already at highest risk of unintended pregnancy, such as young and more socially deprived women.[5,9] Taken together, these data suggest that current health care models are failing to meet women's need for effective contraception during the postpartum period.

Postpartum Contraception Models of Care

A "traditional" model of postpartum contraception provision has been that of contraceptive discussion before the woman is discharged from a maternity hospital after birth. This may be with an obstetrician or a midwife. There is usually another opportunity to discuss contraception again at a postnatal check, often 6 weeks later and usually this will be with a general practitioner (GP). However, research indicates that these may not be the optimal times to introduce a discussion about contraception for the first time.

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In the immediate postnatal setting, new mothers are usually tired and preoccupied with looking after their baby or recovering from childbirth; so, a discussion about contraception may not be a priority. Studies have found that maternity providers (obstetricians and midwives) often receive very little training in contraceptive and, between this and time constraints, may provide no more than cursory advice at this time.[10,11] Although a GP may discuss contraception again at a 6-week postnatal check, there may be several competing clinical priorities in this short appointment, such that contraception may be low on the list of priorities, or in some cases not discussed at all. In a previous survey of GPs providing postnatal care in Scotland, it was also noted that young women and those from more deprived areas were the least likely to attend the 6-week visit.[12] Furthermore, a study focusing on women's experience of this GP postpartum visit found that when contraceptive discussion did take place, it tended to focus on short-acting methods which could be more easily provided, such as pills.[13] If a woman wished to have a long-acting reversible method of contraception such an implant or intrauterine device (IUD) then a further appointment or referral to another service was usually required. This places additional barriers on women trying to access these highly effective methods at a time when it is already challenging.

For women who are fully breastfeeding and amenorrhoeic, additional contraception is not always required in the first 6 months after childbirth. However, breastfeeding rates often decline in the first few weeks after giving birth, with considerable variation across the world. In Nordic countries such as Sweden and Norway, data suggest that more than 60% of women are fully breastfeeding at 6 weeks' postpartum,[14] but in other parts of the world such Scotland, the figure is 32%.[15] In addition, research has found that women often have misconceptions about the criteria for the lactational amenorrhea method (LAM) and the factors affecting its efficacy as a contraceptive.[16] Given that ovulation may occur as early as day 25 in non-breastfeeding women[1] (or those who do not meet the LAM criteria), this means that a significant proportion of women are potentially at risk of an unintended pregnancy if they have not initiated effective contraception.

Best practice guidelines on postpartum contraception from countries such as the UK now place additional emphasis on maternity services to discuss and provide a woman's chosen method of contraception, ideally before she is discharged home.[17] Contraceptive medical eligibility criteria from the UK and the United States advise that with the exception of combined hormonal contraception, all methods are safe to initiate in the postpartum setting, by both breastfeeding and non-breastfeeding women (►**Table 1**).[18,19] This offers added convenience for women, as they are in contact with health care providers who can discuss and supply their chosen method at the time, reducing the need for additional visits and facilitating immediate contraceptive cover even before sexual activity resumes.

Survey data from postnatal women in the UK have shown that women value the option of receiving contraceptive supplies from the maternity setting.[3,4] Additionally, many indicate that, in theory, they would choose to start a long-

Table 1 Summary of UK medical eligibility criteria for contraceptive use categories applicable to women after childbirth

Condition	CU-IUD	LNG-IUD	IMP	DMPA	POP	CHC
Postpartum—breastfeeding						
a. 0 to <6 wk	See below		1	2	1	4
b. >6 wk to <6 mo			1	1	1	2
c. >6 mo			1	1	1	1
Postpartum—non-breastfeeding						
a. 0 to <3 wk	See below					
With other risk factors for VTE			1	2	1	4
Without other risk factors			1	2	1	3
b. 3 to <6 wk						
With other risk factors for VTE			1	2	1	3
Without other risk factors			1	1	1	2
c. >6 wk			1	1	1	1
Postpartum—breastfeeding/non-breastfeeding						
a. 0 to <48 h	1	1	See above			
b. 48 h to <4 wk	3	3				
c. >4 wk	1	1				
d. Postpartum sepsis	4	4				

Abbreviations: CHC, combined hormonal contraception; CU-IUD, copper intrauterine device; DMPA, progestogen-only injectable; IMP, progestogen-only implant; LNG-IUD, levonorgestrel intrauterine device; POP, progestogen-only pill.
Source: Reproduced with permission from Faculty of Sexual and Reproductive Healthcare.[17]

acting reversible contraception (LARC) method if it could be provided at this time.[3] However, for this to be successful, women need to know about their options in advance so that they can make an informed decision. As such, contraception cannot be initiated for the first time before they are about to leave the hospital after delivery. Rather, it should be discussed antenatally when there is time to fully consider options and discuss them with their partner, family, or friends.[4]

Antenatal Contraceptive Counseling

A pilot study of antenatal contraceptive counseling in Scotland (APPLES project) found that it was both feasible and acceptable to provide as a routine part of maternity care.[20] In this project, community midwives were trained to deliver basic contraceptive advice at a 22-week antenatal visit. This timing was chosen because local midwives felt they would have more time to introduce it then, compared with other later appointments which were already busy. Importantly, this timing also ensured that women who might otherwise go on to deliver prematurely would have the opportunity to have a contraceptive discussion. Midwives were provided with a script to read and a newly designed postpartum contraceptive information leaflet to give to women. They were also encouraged to signpost women to the website of the local contraceptive service for further detailed information. Later in their pregnancy (at around 32–34 weeks), women were routinely asked about their future contraceptive intentions. If they had decided upon a particular method of contraception, this was then recorded in their maternity records to support this being provided in a timely manner from the maternity service after delivery.

In this study, around three quarters of the women surveyed felt that the antenatal contraceptive discussion had been helpful and was introduced at the right stage of pregnancy. Importantly, interviews with midwives indicated that by the end of the study they felt that contraceptive discussion during the antenatal period had become firmly embedded as a part of their routine practice. Similar findings were noted in interviews with obstetricians, as they began to see the benefits of providing contraception from within the maternity service.

While this demonstrates the value of antenatal contraceptive discussion, for this to be fully effective it needs to be partnered with access to the full range of contraceptive methods in the immediate postnatal setting. This means that in addition to facilitating discussion, maternity staff also needed to be trained to provide and/or fit contraception to ensure that women have their chosen method available before leaving the birth unit.

Provision of Chosen Contraceptive Method from Maternity Hospital

In the APPLES project, contraception was supplied at no cost to women, as is the norm in the UK National Health Service (NHS). The hormonal methods that were initially available in this pilot study included the progestogen-only pill, injectable and implant.[20] Intrauterine methods could also be inserted for women having a planned cesarean birth (in line with UK guidelines).[18] But for women having a vaginal birth who wished to have an IUD, they were offered a rapid access appointment to have this inserted from 4 weeks' postpartum at a local sexual health clinic, but less than half attended this appointment.

The study demonstrated a high demand for contraception among participants and although the number of women accessing methods from the maternity service was encouraging, the demand for LARC methods was often not met.[20] This was in part because at the time, only doctors in the maternity hospital were trained to insert the contraceptive implant, and this limited provision of this method. Following this project, the same study site proceeded to train a cohort of midwives in both the postnatal wards and in the community to provide the contraceptive implant, including insertion for women at home using a topical ethyl chloride spray (cooling agent) in place of local anesthetic injections.[21] Midwife provision of the implant was evaluated as highly acceptable to both women and staff.

Routine provision of an IUD at elective caesarean section was implemented throughout the region and the evaluation of this confirmed that this was safe, effective, and highly acceptable to women.[22] Uptake of an IUD at caesarean was around 20% and with a high continuation rate (85%) at 1 year. Despite concerns among obstetricians regarding whether these devices might be difficult to remove some years later, a follow-up study 5 years postimplementation showed that relatively few devices (7%) required any form for operative removal such as outpatient hysteroscopy.[23]

Implementation of routine provision of IUD after vaginal birth is perhaps the most challenging of all methods to offer. The technique used to insert the IUD into the large postpartum uterus is different from that of interval insertion and requires use of long-handled Kelly forceps (►**Fig. 1**) to place the IUD at the fundus.[24] As immediate postpartum IUD is not widely available, especially in high-income settings, most staff are unfamiliar with it. Due to the limited time window to insert IUDs in the immediate postpartum setting (usually

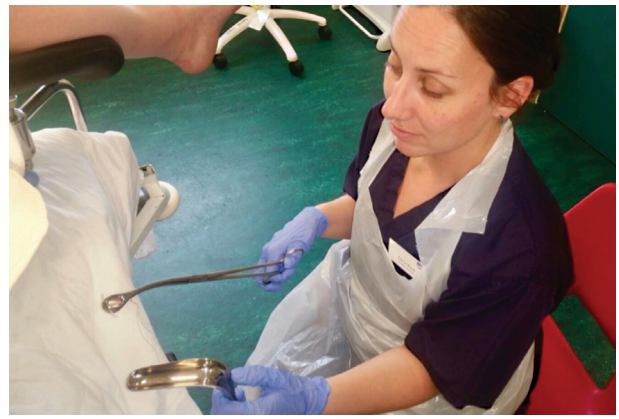

Fig. 1 Image of midwife inserting intrauterine device immediately postpartum using Kelly forceps technique (author's image, used with consent).

within 48 hours of birth)[17] and given that midwives are often the main providers of intrapartum care, it is important that both midwives and doctors are trained in the technique to offer this service effectively.

A pilot project that evaluated routine provision of immediate postpartum IUDs by newly trained midwives and doctors in the UK showed that the procedure was safe, with a low risk of complications.[24] However, IUD expulsion rates were in the region of 30%. Although it is accepted that immediate postpartum IUD has a high expulsion rate than non-postpartum insertion, this figure is higher than that in other studies of its kind. The largest of which is a multicenter FIGO study of over 36,000 postpartum IUD insertions, with an observed expulsion rate of only 4%.[25] It is possible that inserter experience may have a role to play, with some evidence supporting a reduction in expulsion rate with increasing provider experience of the technique.[24] Furthermore, in the UK study, most women recognized the expulsion, and despite this most chose to have a further IUD inserted, leading to high rates of method continuation 12 months later.[24] Indeed, the rates were significantly higher than would have otherwise been the case if the woman had simply been given an appointment to attend a local clinic, as data from the same region reports nonattendance rates for delayed IUD insertion of more than 50%.[20] From a cost perspective, a study from the United States found that immediate postpartum IUD insertion remained cost-effective even with expulsion rates as high as 56%.[26] More importantly, the option to receive an IUD immediately after delivery rather than waiting for interval insertion was shown to be highly valued by women.[27]

If these three key elements of postpartum contraception provision are aligned (►**Fig. 2**), namely, antenatal contraceptive counseling, contraception-trained providers at the time of delivery, and the ability to offer a comprehensive range of methods from the maternity service, then we should be better able to meet a woman's need for effective contraception, resulting in fewer unintended pregnancies. Ultimately this will have better outcomes for women, their babies, and society. However, the successful implementation of these services is not without its challenges.

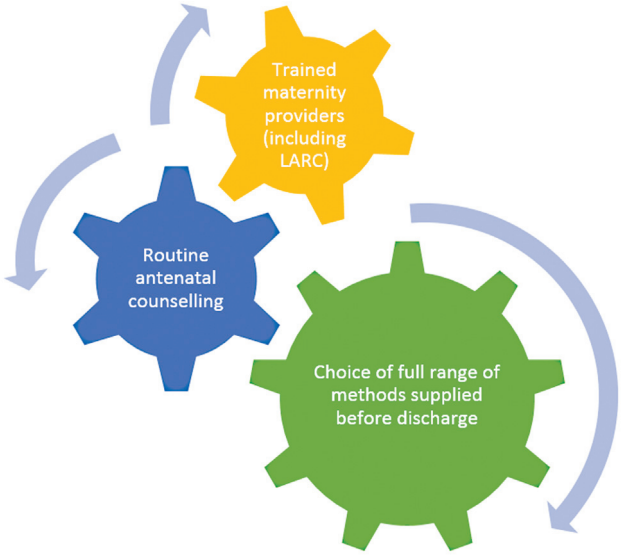

Fig. 2 Key components of successful postpartum contraception service. LARC, long-acting reversible contraception.

Supporting Implementation of Postpartum Contraception Services

Achieving these key elements requires a coordinated and sustained program, delivered across the whole maternity system. There are several examples of effective postpartum contraceptive programs in the literature which can serve as a framework for other regions.[28,29] Successful implementation involves collaboration between a wide range of stakeholders including obstetricians, midwives, hospital managers, GPs, researchers, and women. It also involves championing policymakers on the benefits for women in society and securing the funding necessary for training and provision of contraception.[30]

Training is consistently highlighted as being central to establishing and maintaining these services.[28] It is necessary to ensure maternity staff have the knowledge and skills to counsel about and provide the full range of contraceptive methods, and also play a part in overcoming misconceptions, increasing acceptance, and "normalizing" this role among staff groups for whom it may not currently be routine. Training is especially important for practical skills such as implant and IUD insertion, which may not form a core part of training curricula for midwives and obstetric doctors. Unlike in other areas, the unique environment of labor and delivery requires trained providers to be available in a "round-the-clock" fashion to provide these services consistently and in a timely manner. To achieve this, contraceptive training should be incorporated into the core training curricula for midwives and obstetric doctors from an early stage.

To ensure that postpartum contraception is universally and not selectively offered, all women should have access to reliable information in a range of this accessible and inclusive formats, reflective of the diverse population accessing maternity care. The use of digital health technologies has been shown to be an effective strategy in low- and middle-income settings and could present opportunities in other regions to supplement more traditional ways of providing contraceptive information.[31]

Although much focus is on maternity providers to counsel and provide contraceptive methods at the time of delivery, other clinician groups still have an important role. This was reflected in a UK survey of community sexual health clinicians (including GPs and community practice nurses) who felt they were best placed to provide aftercare following postpartum contraceptive initiation.[32] This is especially relevant for options such as postpartum IUD insertion when ongoing management of nonvisible or long IUD threads may be required, and also highlights the need for clear clinical pathways and communication between maternity and community health care providers.[28]

Although there are practical challenges in these areas, embedding postpartum contraception programs successfully into existing services has the potential for significant public health benefit, and is a true example of the "life course" approach to women's sexual and reproductive health.

Conclusion

Supporting women to choose and initiate effective postpartum contraception could prevent more unintended pregnancies and improve outcomes for mothers and babies and benefit all of the society. Routine antenatal contraceptive counseling combined with provision of chosen method of contraception following delivery is necessary to achieve this goal.

Conflict of Interest
None declared.

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