



COMMITTEE OPINION

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Committee on Obstetric Practice

The American College of Nurse–Midwives and the Society for Maternal–Fetal Medicine endorse this document. The American Academy of Family Physicians and the Association of Women's Health, Obstetric and Neonatal Nurses support this document. This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Obstetric Practice in collaboration with committee members Ann E. Borders, MD, MSc, MPH and Alison M. Stuebe, MD, MSc, and reviewed by the Long-Acting Reversible Contraception Work Group.

This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Immediate Postpartum Long-Acting Reversible Contraception

ABSTRACT: Immediate postpartum long-acting reversible contraception (LARC) has the potential to reduce unintended and short-interval pregnancy. Women should be counseled about all forms of postpartum contraception in a context that allows informed decision making. Immediate postpartum LARC should be offered as an effective option for postpartum contraception; there are few contraindications to postpartum intrauterine devices and implants. Obstetrician–gynecologists and other obstetric care providers should discuss LARC during the antepartum period and counsel all pregnant women about options for immediate postpartum initiation. Education and institutional protocols are needed to raise clinician awareness and to improve access to immediate postpartum LARC insertion. Obstetrician–gynecologists and other obstetric care providers should incorporate immediate postpartum LARC into their practices, counsel women appropriately about advantages and risks, and advocate for institutional and payment policy changes to support provision.

Recommendations

The American College of Obstetricians and Gynecologists (the College) recommends the following strategies for immediate postpartum long-acting reversible contraception (LARC):

- Optimally, women should be counseled prenatally about the option of immediate postpartum LARC. Counseling should include advantages, risks of intrauterine device (IUD) expulsion, contraindications, and alternatives to allow for informed decision making.
- Immediate postpartum LARC should be offered as an effective option for postpartum contraception; there are few contraindications to postpartum IUDs and implants. Obstetrician–gynecologists and other obstetric care providers should counsel women about the convenience and effectiveness of immediate postpartum LARC, as well as the benefits of reducing unintended pregnancy and lengthening interpregnancy intervals.
- Obstetrician–gynecologists and other obstetric care providers should include in their contraceptive counseling the increased risk of expulsion, including unrecognized expulsion, with immediate postpartum IUD insertion compared with interval IUD insertion.
- Systems should be in place to ensure that women who desire LARC can receive it during the comprehensive postpartum visit if immediate postpartum placement was not undertaken.
- Obstetrician–gynecologists, other obstetric care providers, and institutions should develop the resources, processes, and infrastructure, including stocking LARC devices in the labor and delivery unit and coding and reimbursement strategies, to support immediate LARC placement after vaginal and cesarean births.



- Obstetrician–gynecologists and other obstetric care providers should advocate for appropriate reimbursement for immediate postpartum LARC from public and private insurers.

Introduction

The IUD and contraceptive implant, known as LARC, are safe and highly effective for most females, including adolescents (1). The success of LARC in reducing unintended pregnancy and abortion rates (2, 3) could be extended if initiated immediately postpartum, with additional effect on reduction of unintended and short-interval pregnancy. Immediate postpartum LARC refers to LARC initiation in the immediate postpartum period, before hospital discharge. Intrauterine device placement while still in the delivery room is referred to as postplacental insertion. Obstetrician–gynecologists and other obstetric care providers should discuss LARC during the antepartum period and counsel all pregnant women about options for immediate postpartum initiation. Education and institutional protocols are needed to raise clinician awareness and to improve access to immediate postpartum LARC insertion.

In the United States, approximately 45% of all pregnancies are unintended (4), and rates of unintended pregnancy and abortion are among the highest in the developed world (5). Those at highest risk are women of low socioeconomic status as well as younger (ages 18–24), cohabiting, and minority women (4).

Between 40–57% of women report having unprotected intercourse before the routine 6-week postpartum visit (6, 7). Ovulation occurs at a mean of 39 days postpartum in nonlactating women, and can occur as early as 25 days, putting postpartum women at risk of unintended and short-interval pregnancy (8). In the first year postpartum, at least 70% of pregnancies are unintended (9). Between 12% and 49% of postpartum adolescents experience *short-interval pregnancy*, defined as pregnancy within 1 year of delivery (10). Short-interval pregnancies are most often unintended and are an independent risk factor for preterm delivery and adverse neonatal outcomes (10).

More widespread adoption of immediate postpartum LARC has been hampered by the inability to obtain reimbursement for LARC devices and services provided immediately postpartum. Beginning in 2012, some state Medicaid programs began to reimburse for immediate postpartum LARC. Currently, Medicaid reimburses for immediate postpartum LARC, separate from the global fee for delivery, in more than a dozen states. Recently, the Centers for Medicare and Medicaid Services have outlined emerging approaches to optimize access and use of LARC, including a state by state overview of LARC reimbursement policy and implementation strategy (also

available at www.acog.org/LARCImmediate Postpartum) (11, 12, 13).

Efficacy and Continuation of Long-Acting Reversible Contraception

With effectiveness greater than 99%, LARC is the most effective form of reversible contraception and has the highest continuation rates among reversible methods (14). A single visit or encounter is required for placement; continuing use does not require additional adherence to a medication regimen or regular follow-up. The Contraceptive CHOICE study offered more than 9,000 women counseling on all contraceptive methods and provided contraceptives free of charge; 75% chose LARC. At the 12-month follow-up, 86% of LARC users were still using the method, compared with 55% of those who initiated short-acting methods, such as oral contraceptives or depot medroxyprogesterone acetate. In this study, women who used LARC had the highest satisfaction rates and lowest rates of unintended pregnancy (3).

Benefits and Safety of Immediate Postpartum Long-Acting Reversible Contraception

The immediate postpartum period has several potential benefits for implant insertion or IUD placement because women are known not to be pregnant and many women are motivated to avoid short-interval pregnancy (1). Additionally, the woman and clinician are in the same place at the same time, which eliminates potential access barriers, including the need for an additional visit and potential loss of insurance coverage postpartum.

Placing LARC in the immediate postpartum period is additionally attractive because many women, including those at highest risk of short interpregnancy intervals, have low postpartum visit follow-up rates. Approximately 10–40% of women do not attend the postpartum visit (15), and 40–75% of women who plan to use an IUD postpartum do not obtain it (16). Some women may attend the postpartum visit, but encounter barriers to receiving LARC at that visit, such as inability to pay, clinicians or clinics not offering LARC, or need for a repeat visit for placement. As demonstrated in several cost-benefit analyses, immediate postpartum LARC is cost-effective (17–19).

The Centers for Disease Control and Prevention's 2010 *U.S. Medical Eligibility Criteria for Contraceptive Use* (MEC)* has been endorsed by the College and provides guidance about the safety of postpartum contraceptive use (see Table 1). Immediate postpartum initiation of IUDs and implants are classified as Category 1 (no restriction for use) or Category 2 (advantages generally outweigh theoretical or proven risks) (20).

*This section includes guidance based on the 2010 *U.S. Medical Eligibility Criteria for Contraceptive Use* from the Centers for Disease Control and Prevention. Updates to these recommendations are available on the Centers for Disease Control and Prevention web site (<http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm>).



Table 1. Centers for Disease Control and Prevention's 2010 Medical Eligibility Criteria* Classifications for Postpartum Long-Acting Reversible Contraception†

Condition	Implant	LNG-IUD	Cu-IUD
Less than 10 minutes after delivery of placenta	–	2	1
10 minutes after delivery of placenta to less than 4 weeks after delivery	1	2	2
More than 4 weeks after delivery	1	1	1
Less than 1 month postpartum†	2	2	1
More than 1 month postpartum†	1	1	1

Abbreviations: LNG=levonorgestrel; Cu=copper; IUD=intrauterine device.

*This section includes guidance based on the 2010 *U.S. Medical Eligibility Criteria for Contraceptive Use* from the Centers for Disease Control and Prevention. Updates to these recommendations are available on the Centers for Disease Control and Prevention web site (<http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm>).

†Categories: 1=A condition for which there is no restriction for the use of the contraceptive method; 2=A condition for which the advantages of using the method generally outweigh the theoretical or proven risks; 3=A condition for which the theoretical or proven risks usually outweigh the advantages of using the method; 4=A condition that represents an unacceptable health risk if the contraceptive method is used.

‡Recommendations among breastfeeding women.

Data from the *U.S. Medical Eligibility Criteria for Contraceptive Use*, 2010. CDC. U.S. medical eligibility criteria for contraceptive use, 2010: adapted from the World Health Organization medical eligibility criteria for contraceptive use, 4th edition. MMWR 2010;59 (No. RR-4).

Immediate Postpartum Long-Acting Reversible Contraception Insertion Timing and Technique

Counseling

Optimally women should be counseled prenatally about the option of immediate postpartum LARC. Counseling should include advantages, risks of IUD expulsion, contraindications, and alternatives to allow for informed decision making. Systems should be in place to ensure that women who desire LARC can receive it during the comprehensive postpartum visit if immediate postpartum placement was not undertaken.

Implants

The contraceptive implant may be inserted in the delivery room or at any other time during the woman's stay in the postpartum unit before hospital discharge. There are no contraindications or risks specific to the postpartum period with the exception of theoretical issues related to breastfeeding (see Breastfeeding).

The technique for implant placement in the immediate postpartum period does not differ from that for interval insertion. Given the advantages of placement before hospital discharge and no increased risk, the implant is an excellent choice for women who are interested in pregnancy prevention.

Intrauterine Devices

Immediate postpartum IUD placement differs from interval insertion technique. Best practice for immediate postpartum IUD insertion is to place the IUD in the delivery room, within 10 minutes of placental delivery in vaginal and cesarean births, when possible. A brief description of placement follows, but immediate postpartum IUD insertion, after cesarean and vaginal delivery, requires hands-on didactic instruction.

After vaginal delivery, IUD insertion can be accomplished manually or with a ring or Kelly forceps. The IUD is removed from the inserter and the strings are cut to 10 cm. The wings of the IUD are grasped gently with a ring forceps, and the IUD is passed through the cervix and placed at the fundus. Ultrasonographic guidance may be used. In the setting of cesarean delivery, the IUD is inserted after removal of the placenta and after the uterus has become hemostatic. After initiating closure of the uterine incision, the IUD is placed at the fundus with the inserter, manually, or with a ring forceps, and the string gently placed manually or with ring forceps into the cervix. After this is accomplished, hysterotomy closure can be completed. Immediate postpartum insertion is contraindicated among women in whom peripartum chorioamnionitis, endometritis, or puerperal sepsis is diagnosed (1).



Formalized training is advised before provision of immediate postpartum IUD placement. Obstetrician-gynecologists and other obstetric care providers who desire more information on techniques of immediate postpartum IUD insertion can find training opportunities through the College's LARC Program web site along with other resources such as webinars, information on coding and reimbursement, and patient education materials (see For More Information).

Immediate Postpartum Long-Acting Reversible Contraception Challenges

Intrauterine Device Expulsion

Expulsion rates for immediate postpartum IUD insertions are higher than for interval or postabortion insertions, vary by study, and may be as high as 10–27% (21–24). Research is underway to determine whether levonorgestrel IUDs have different expulsion rates than copper devices in the immediate postpartum setting.

Women should be counseled about the increased expulsion risk, as well as signs and symptoms of expulsion. Replacement cost may vary by insurance plan, and a woman who experiences or suspects expulsion should contact her obstetrician-gynecologist or other obstetric care provider and use a back-up contraceptive method. Although levonorgestrel IUD labeling recommends insertion after uterine involution and expulsion rates are higher with immediate postpartum IUD insertion, many women experience barriers to interval LARC placement, such that the advantages of immediate placement outweigh the disadvantages (25–27).

A recent study examined IUD continuation at 6 months postpartum in women randomized to immediate IUD placement at cesarean delivery versus interval placement 6 weeks postpartum (26). At 6 months, significantly more women in the immediate postpartum placement group continued the IUD (83% versus 64%, relative risk, 1.3; confidence interval, 1.02–1.66). In the interval group, 39% did not obtain the IUD, 25% did not return for the postpartum visit, and 14% either declined the IUD or had an unsuccessful insertion.

Despite the higher expulsion rate of immediate postpartum IUD placement over interval placement, evidence from clinical trials and from cost-benefit analyses strongly suggest the superiority of immediate placement in reduction of unintended pregnancy, especially for those at greatest risk of not having recommended postpartum follow-up.

Contraindications

Immediate postpartum IUD placement is contraindicated in the setting of intrauterine infection at time of delivery, postpartum hemorrhage, and puerperal sepsis. In the absence of puerperal sepsis, immediate postpartum IUD insertion is not associated with increased risks of bleeding or infection (28). The contraceptive implant

does not have any additional contraindications or risks associated with placement in the immediate postpartum period.

Breastfeeding

Because progesterone withdrawal after delivery of the placenta is thought to trigger the onset of lactogenesis, there are theoretical concerns that exogenous progesterone, such as the progestin in hormonal IUDs or implants, could prevent onset of milk production. Although long-term data are limited, observational studies of progestin-only contraceptives suggest they have no effect on successful initiation and continuation of breastfeeding or on infant growth and development (29). Immediate postpartum provision of the levonorgestrel IUD and implant are rated as MEC Category 2 for women who are breastfeeding, with the advantages generally outweighing theoretical or proven risks (see Table 1).

A randomized trial that evaluated breastfeeding outcomes in women with implant placement in the first 3 days postpartum compared with placement at 4–8 weeks postpartum noted no differences in lactogenesis or inability to breastfeed (15). The copper IUD lacks hormones, which avoids any theoretical effect on breastfeeding, and is classified as Category 1 (no restriction on use) by the MEC for immediate postpartum use by women who are breastfeeding (see Table 1). In a single, randomized controlled trial that examined the effect of IUDs initiated at 6–8 weeks postpartum on breastfeeding outcomes, breastfeeding duration and infant growth outcomes were similar for women in the levonorgestrel IUD group (n=163) compared with women in the copper IUD group (n=157) (30).

Data on the effect of immediate postpartum levonorgestrel IUD insertion on lactation are limited to a secondary analysis of a small, randomized trial of immediate (n=27) versus delayed (n=21) placement. This trial showed no difference in patient-reported breastfeeding at 6–8 weeks and again at 3 months. However, more women in the delayed placement group reported continued breastfeeding at 6 months and exclusive breastfeeding at 3 months and 6 months (31). Small numbers limit the ability to draw conclusions from this study, and an ongoing, adequately powered randomized trial of immediate versus delayed insertion of the levonorgestrel IUD to investigate breastfeeding outcomes will provide more definitive data. Given available evidence, women considering immediate postpartum hormonal LARC should be counseled about the theoretical risk of reduced duration of breastfeeding, but that the preponderance of the evidence has not shown a negative effect on actual breastfeeding outcomes.

Conclusion

Immediate postpartum LARC has the potential to reduce unintended and short-interval pregnancy. Obstetrician-gynecologists and other obstetric care providers should incorporate immediate postpartum LARC into their



practices, counsel women appropriately about advantages and risks, and advocate for institutional and payment policy changes to support provision.

For More Information

The American College of Obstetricians and Gynecologists has identified additional resources on topics related to this document that may be helpful for ob-gyns, other health care providers, and patients. You may view these resources at www.acog.org/LARCImmediatePostpartum.

These resources are for information only and are not meant to be comprehensive. Referral to these resources does not imply the American College of Obstetricians and Gynecologists' endorsement of the organization, the organization's web site, or the content of the resource. The resources may change without notice.

References

1. Long-acting reversible contraception: implants and intrauterine devices. Practice Bulletin No. 121. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2011;118:184–96. [PubMed] [*Obstetrics & Gynecology*] ↩
2. Trussell J, Henry N, Hassan F, Prezioso A, Law A, Filonenko A. Burden of unintended pregnancy in the United States: potential savings with increased use of long-acting reversible contraception. *Contraception* 2013;87:154–61. [PubMed] [Full Text] ↩
3. Peipert JF, Madden T, Allsworth JE, Secura GM. Preventing unintended pregnancies by providing no-cost contraception. *Obstet Gynecol* 2012;120:1291–7. [PubMed] [*Obstetrics & Gynecology*] ↩
4. Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008–2011. *N Engl J Med* 2016;374:843–52. [PubMed] [Full Text] ↩
5. American College of Obstetricians and Gynecologists. Global women's health and rights. Statement of Policy. Washington, DC: American College of Obstetricians and Gynecologists; 2015. [*Obstetrics & Gynecology*] ↩
6. Brito MB, Ferriani RA, Quintana SM, Yazlle ME, Silva de Sa MF, Vieira CS. Safety of the etonogestrel-releasing implant during the immediate postpartum period: a pilot study. *Contraception* 2009;80:519–26. [PubMed] [Full Text] ↩
7. Connolly A, Thorp J, Pahel L. Effects of pregnancy and childbirth on postpartum sexual function: a longitudinal prospective study. *Int Urogynecol J Pelvic Floor Dysfunct* 2005;16:263–7. [PubMed] ↩
8. Jackson E, Glasier A. Return of ovulation and menses in postpartum nonlactating women: a systematic review. *Obstet Gynecol* 2011;117:657–62. [PubMed] [*Obstetrics & Gynecology*] ↩
9. White K, Teal SB, Potter JE. Contraception after delivery and short interpregnancy intervals among women in the United States. *Obstet Gynecol* 2015;125:1471–7. [PubMed] [*Obstetrics & Gynecology*] ↩
10. Tocce KM, Sheeder JL, Teal SB. Rapid repeat pregnancy in adolescents: do immediate postpartum contraceptive implants make a difference? *Am J Obstet Gynecol* 2012;206:481.e1–7. [PubMed] [Full Text] ↩
11. Center for Medicaid and CHIP Services. State Medicaid payment approaches to improve access to long-acting reversible contraception. CMCS Informational Bulletin. Baltimore (MD): Centers for Medicare and Medicaid Services; 2016. Available at: <https://www.medicaid.gov/federal-policy-guidance/downloads/cib040816.pdf>. Retrieved June 3, 2016. ↩
12. Moniz MH, Dalton VK, Davis MM, Forman J, Iott B, Landgraf J, et al. Characterization of Medicaid policy for immediate postpartum contraception. *Contraception* 2015;92:523–31. [PubMed] [Full Text] ↩
13. Moniz MH, Chang T, Davis MM, Forman J, Landgraf J, Dalton VK. Medicaid administrator experiences with the implementation of immediate postpartum long-acting reversible contraception. *Womens Health Issues* 2016; DOI: 10.1016/j.whi.2016.01.005.13. [PubMed] [Full Text] ↩
14. Hatcher RA, Trussell J, Nelson AL, Cates WJ, Kowal D, Policar MS. *Contraceptive technology*. 20th rev. ed. New York (NY): Ardent Media; 2011. ↩
15. Gurtcheff SE, Turok DK, Stoddard G, Murphy PA, Gibson M, Jones KP. Lactogenesis after early postpartum use of the contraceptive implant: a randomized controlled trial. *Obstet Gynecol* 2011;117:1114–21. [PubMed] [*Obstetrics & Gynecology*] ↩
16. Simmons KB, Edelman AB, Li H, Yanit KE, Jensen JT. Personalized contraceptive assistance and uptake of long-acting, reversible contraceptives by postpartum women: a randomized, controlled trial. *Contraception* 2013;88:45–51. [PubMed] [Full Text] ↩
17. Garipey AM, Duffy JY, Xu X. Cost-effectiveness of immediate compared with delayed postpartum etonogestrel implant insertion. *Obstet Gynecol* 2015;126:47–55. [PubMed] [*Obstetrics & Gynecology*] ↩
18. Washington CI, Jamshidi R, Thung SF, Nayeri UA, Caughey AB, Werner EF. Timing of postpartum intrauterine device placement: a cost-effectiveness analysis. *Fertil Steril* 2015;103:131–7. [PubMed] [Full Text] ↩
19. Rodriguez MI, Caughey AB, Edelman A, Darney PD, Foster DG. Cost-benefit analysis of state- and hospital-funded postpartum intrauterine contraception at a university hospital for recent immigrants to the United States. *Contraception* 2010;81:304–8. [PubMed] [Full Text] ↩
20. Update to CDC's U.S. Medical Eligibility Criteria for Contraceptive Use, 2010: revised recommendations for the use of contraceptive methods during the postpartum period. Centers for Disease Control and Prevention (CDC). *MMWR Morb Mortal Wkly Rep* 2011;60:878–83. [PubMed] [Full Text] ↩
21. Dahlke JD, Terpstra ER, Ramseyer AM, Busch JM, Rieg T, Magann EF. Postpartum insertion of levonorgestrel-intrauterine system at three time periods: a prospective randomized pilot study. *Contraception* 2011;84:244–8. [PubMed] [Full Text] ↩
22. Chen BA, Reeves MF, Hayes JL, Hohmann HL, Perriera LK, Creinin MD. Postplacental or delayed insertion of the levonorgestrel intrauterine device after vaginal delivery: a randomized controlled trial. *Obstet Gynecol* 2010;116:1079–87. [PubMed] [*Obstetrics & Gynecology*] ↩



23. Hayes JL, Cwiak C, Goedken P, Zieman M. A pilot clinical trial of ultrasound-guided postplacental insertion of a levonorgestrel intrauterine device. *Contraception* 2007;76:292–6. [PubMed] [Full Text] ↵
24. Celen S, Sucak A, Yildiz Y, Danisman N. Immediate postplacental insertion of an intrauterine contraceptive device during cesarean section. *Contraception* 2011;84:240–3. [PubMed] [Full Text] ↵
25. Lopez LM, Bernholc A, Hubacher D, Stuart G, Van Vliet Huib AA. Immediate postpartum insertion of intrauterine device for contraception. *Cochrane Database of Systematic Reviews* 2015, Issue 6. Art. No.: CD003036. DOI: 10.1002/14651858.CD003036.pub3. [PubMed] [Full Text] ↵
26. Levi EE, Stuart GS, Zerden ML, Garrett JM, Bryant AG. Intrauterine device placement during cesarean delivery and continued use 6 months postpartum: a randomized controlled trial. *Obstet Gynecol* 2015;126:5–11. [PubMed] [*Obstetrics & Gynecology*] ↵
27. U S. Medical Eligibility Criteria for Contraceptive Use, 2010. Centers for Disease Control and Prevention (CDC). *MMWR Recomm Rep* 2010;59(RR-4):1–86. [PubMed] [Full Text] ↵
28. Welkovic S, Costa LO, Faundes A, de Alencar Ximenes R, Costa CF. Post-partum bleeding and infection after postplacental IUD insertion. *Contraception* 2001;63:155–8. [PubMed] [Full Text] ↵
29. Kapp N, Curtis K, Nanda K. Progestogen-only contraceptive use among breastfeeding women: a systematic review. *Contraception* 2010;82:17–37. [PubMed] [Full Text] ↵
30. Shaamash AH, Sayed GH, Hussien MM, Shaaban MM. A comparative study of the levonorgestrel-releasing intrauterine system Mirena versus the Copper T380A intrauterine device during lactation: breast-feeding performance, infant growth and infant development. *Contraception* 2005;72:346–51. [PubMed] [Full Text] ↵
31. Chen BA, Reeves MF, Creinin MD, Schwarz EB. Postplacental or delayed levonorgestrel intrauterine device insertion and breast-feeding duration. *Contraception* 2011;84:499–504. [PubMed] [Full Text] ↵

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