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Society for Maternal-Fetal Medicine (SMFM) Consult Series #48: Immediate postpartum long-acting reversible contraception for women at high risk for medical complications

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Reproductive planning is essential for all women and most important for those with complex health conditions or at high risk for complications. Pregnancy planning can allow these high-risk women the opportunity to receive preconception counseling, medication adjustment, and risk assessment related to health conditions that have a direct impact on maternal morbidity and mortality risk. Despite the need for pregnancy planning, medically complex women face barriers to contraceptive use, including systemic barriers, such as underinsurance for women at increased risk for complex medical conditions as well as low uptake of effective postpartum contraception. Providing contraceptive counseling and a full range of contraceptive options, including immediate postpartum long-acting reversible contraception (LARC), is a means of overcoming these barriers. The purpose of this document is to educate all providers, including maternal-fetal medicine subspecialists, about the benefits of postpartum contraception, and to advocate for widespread implementation of immediate postpartum LARC placement programs. The following are Society for Maternal-Fetal Medicine recommendations: we recommend that LARC be offered to women at highest risk for adverse health events as a result of a future pregnancy (GRADE 1B); we recommend that obstetric care providers discuss the availability of immediate postpartum LARC with all pregnant women during prenatal care and consult the *U.S. Medical Eligibility Criteria for Contraceptive Use* guidelines to determine methods most appropriate for specific medical conditions (GRADE 1C); we recommend that women considering immediate postpartum intrauterine device insertion be counseled that although expulsion rates are higher than with delayed insertion, the benefits appear to outweigh the risk of expulsion, as the long-term continuation rates are higher (GRADE 1C); we recommend that obstetric care providers wishing to utilize immediate postpartum LARC obtain training specific to the immediate postpartum period (BEST PRACTICE); for women who desire and are eligible for LARC, we recommend immediate postpartum placement after a high-risk pregnancy over delayed placement due to overall superior efficacy and cost-effectiveness (GRADE 1B); we recommend that women considering immediate postpartum LARC be encouraged to breastfeed, as current evidence suggests that these methods do not negatively influence lactation (GRADE 1B); for women who desire and are eligible for LARC, we suggest that early postpartum LARC placement be considered when immediate postpartum LARC placement is not feasible (GRADE 2C); and we recommend that contraceptive counseling programs be patient-centered and provided in a shared decision-making framework to avoid coercion (BEST PRACTICE).

Key words: long-acting reversible contraception (LARC), high-risk pregnancy, medically complex woman, postpartum contraception

Introduction

Reproductive planning is essential for all women and most important for those with complex health conditions or at high risk for complications. Approximately 45% of pregnancies in

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TABLE 1
Long-acting reversible contraceptive methods

Method	Active ingredient	Failure rate[a]	Length of time approved for use by FDA[b]
Intrauterine devices			
Paragard	Copper	0.8	10 yrs
Liletta	52 mg of levonorgestrel	0.1	5 yrs
Mirena	52 mg levonorgestrel	0.1	5 yrs
Kyleena	19.5 mg of levonorgestrel	0.1	5 yrs
Skyla	13.5 mg of levonorgestrel	0.1	3 yrs
Subdermal implant			
Nexplanon	Etonogestrel 68 mg	0.2	3 yrs

FDA, Food and Drug Administration.

[a] Percentage of women experiencing an unintended pregnancy within the first year of typical use; [b] There is evidence for extended use for some of these devices.[18]

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the United States are unintended,[1] and medically complex women are at increased risk for unintended pregnancy compared to a healthy cohort.[2] Although each diagnosis and its treatment vary, an unintended pregnancy in the setting of poor disease control could increase the risk of adverse pregnancy outcomes,[3] disease progression,[4] fetal compromise,[5] or long-term childhood health issues.[6] Medical comorbidities are implicated in up to one-half of the maternal deaths in the US.[7–10] Pregnancy planning can allow these high-risk women the opportunity to receive preconception counseling, medication adjustment, and risk assessment related to health conditions that have a direct impact on maternal morbidity and mortality risk.[11] The postpartum period is an especially vulnerable time point, as 70% of pregnancies that occur within 1 year of delivery are unplanned.[12] Interpregnancy intervals shorter than 6 months are associated with increased risks of preterm birth, low birth weight, and small for gestational age infants.[13] Despite the need for pregnancy planning, medically complex women face barriers to contraceptive use, including systemic barriers, such as underinsurance for women at increased risk for complex medical conditions, as well as low uptake of effective postpartum contraception.[2]

Providing contraceptive counseling and a full range of contraceptive options, including immediate postpartum LARC, is a means of overcoming these barriers. The purpose of this document is to educate all providers, including maternal-fetal medicine (MFM) subspecialists, about the benefits of postpartum contraception, and to advocate for widespread implementation of immediate postpartum LARC placement programs.

What is the role of contraception in the care of high-risk women?

The interconception period is a time that allows for optimization of maternal health. Contraception facilitates adequate birth spacing to achieve this goal.[14] This is particularly important for women with comorbid conditions or who have had a complication during pregnancy. The most effective way to prevent an unintended pregnancy is through consistent and correct use of contraception.[1] Despite this, women with comorbid conditions, such as diabetes or obesity, are less likely to use contraception than those without these conditions.[15,16]

When should providers discuss immediate postpartum contraception?

Contraceptive counseling should begin early in pregnancy, be individualized, include a balanced discussion about the risks and benefits of all contraceptive methods, and use shared decision-making.[17] The obstetric care provider who incorporates contraceptive counseling into prenatal care can contribute substantially to the woman's health long after pregnancy. This should be an ongoing discussion during the prenatal period, as complications can develop during pregnancy that may have an impact on contraceptive counseling.

What is the role of long-acting reversible contraception?

The American College of Obstetricians and Gynecologists (ACOG) recommends that long-acting reversible contraceptive (LARC) methods be offered to all appropriate candidates, citing their superior efficacy in preventing unintended and close-interval pregnancy when compared with short-acting methods.[18] LARC methods have low failure rates, similar to those of sterilization, making them appealing to women for whom future pregnancy is not recommended or when sterilization is not an option.[19,20] LARC methods provide the benefit of allowing pregnancy to occur in a well-planned and highly supervised medical setting for women in whom an unplanned pregnancy would pose high medical risk. LARC methods include hormonal and nonhormonal intrauterine devices (IUDs) as well as subdermal contraceptive implants. In the United States, the

levonorgestrel IUD is available in several commercial preparations (Liletta, Mirena, Kyleena, and Skyla),[21–23] and the nonhormonal copper IUD is commercially available as Paragard. The etonogestrel implant is commercially known as Nexplanon.[22] Table 1 lists failure rates and duration of use approved by the U.S. Food and Drug Administration for current LARC methods.

The long-acting nature of LARC allows women to optimize chronic health conditions prior to conception, but LARC methods remain easily reversible when pregnancy is desired. Immediate postpartum initiation of LARC reduces the risk of unintended and close-interval pregnancy because many women have sexual intercourse and resume ovulation prior to their 6-week postpartum visit.[24,25]

Which LARC methods are appropriate for women at high risk for complications?

Obstetric care providers can use the *U.S. Medical Eligibility Criteria for Contraceptive Use* (US MEC) to counsel medically complex women on individualized, efficacious, and evidence-based contraceptive options.[26] This clinical guidance includes comprehensive recommendations for choosing a contraceptive method in the setting of specific health conditions, as well as considerations such as tobacco use, older maternal age, and postpartum status. For each combination of a contraceptive method and medical condition, the US MEC provides recommendations for use based on a 4-point scale (Box 1). For instance, although condoms and other barrier methods reduce transmission of sexually transmitted infections and are a US MEC category 1 (no restriction for use) for a particular health condition, these methods are less appropriate because of their high failure rates. The US MEC includes a list of 21 health conditions that pose an increased risk for adverse health events as a result of pregnancy and encourages LARC methods as an option for women with these conditions (Box 2). Examples include peripartum cardiomyopathy, cystic fibrosis, systemic lupus erythematosus, and epilepsy. **We recommend that LARC be offered to women at highest risk for adverse health events as a result of a future pregnancy (GRADE 1B).**

LARC methods do not contain estrogen, making them safe options for women with a history of medical conditions, such as thromboembolic disease, for whom estrogen is contraindicated. LARC methods are either US MEC category 1 (no restriction for use) or category 2 (proven benefits outweigh theoretical risks) for most conditions. There are very few medical conditions for which IUDs are category 4 (unacceptable risk); these include the following: distorted uterine cavity, Wilson disease (copper IUD is category 4), or current diagnosis of breast cancer (levonorgestrel IUD is category 4), cervical cancer, endometrial cancer, malignant gestational trophoblastic disease, pelvic inflammatory disease, postseptic abortion, puerperal sepsis, purulent cervicitis, pelvic tuberculosis, or unexplained vaginal bleeding. Contraceptive implants are US MEC category 4 only for current breast cancer.[26] In cases for which 1 LARC method is category 3 (risks outweigh benefits) or 4 (unacceptable risk), another LARC method is usually acceptable for use (either category 1 or 2). For example, for women with current breast cancer, the levonorgestrel IUD and etonogestrel implant are category 4, but the copper IUD is category 1.

The US MEC also makes recommendations specific to the immediate postpartum period, and LARC methods are category 1 or 2 for most conditions. With the exception of the contraindications discussed above, immediate postpartum LARC is an option regardless of medical complexity.[26] A summary chart of the US MEC for

BOX 1
Categories of medical eligibility criteria for contraceptive use[26]

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.

BOX 2
Conditions associated with increased risk for pregnancy-related morbidity

Maternal medical conditions
Morbid obesity
Cardiovascular disease (including congenital heart disease, valvular disease, myocardial infarction, stroke)
Cancer
Diabetes
Epilepsy
Bariatric surgery within the past 2 years
Human immunodeficiency virus
Sickle cell disease
Solid organ transplant within the past 2 years
Systemic lupus erythematosus
Thrombophilia
Venous thromboembolism
Maternal genetic disorders (including cystic fibrosis, Marfan syndrome)
Chronic renal disease
Chronic liver disease
Chronic hypertension
Drug addiction

Obstetric complications
Preterm birth
Preeclampsia
Critical intensive care unit admission
Peripartum cardiomyopathy

contraceptive use is available on the CDC website (https://www.cdc.gov/reproductivehealth/contraception/mmwr/mec/summary.html), as well as in an app for smartphones and tablets ("Contraception").

What are the benefits of immediate postpartum LARC insertion?

Immediate postpartum LARC insertion is a safe, convenient, and effective option for postpartum contraception that can occur immediately after delivery. Insertion of an IUD can be done after placental delivery following either a vaginal or cesarean delivery. Compared with other contraceptive methods, IUD insertion within 10 minutes of delivery of the placenta or immediate postpartum implant insertion (typically any time during the delivery hospitalization) has several advantages, including immediate contraception without breastfeeding interference and avoidance of discomfort related to later IUD insertion. Inserting an IUD immediately after placental delivery has not been associated with increased infection, uterine perforation, or postpartum bleeding.[27–29] Importantly, immediate postpartum LARC improves postpartum contraceptive rates[30] and thus reduces the rates of unintended pregnancy and short interpregnancy intervals.[31] **We recommend that obstetric care providers discuss the availability of immediate postpartum LARC with all pregnant women during prenatal care and consult the US MEC guidelines to determine methods most appropriate for specific medical conditions (GRADE 1C).**

What are the contraindications to immediate postpartum LARC?

The few contraindications to immediate postpartum LARC placement are similar to those of interval LARC placement as listed above. For IUDs, delayed insertion is recommended in women with an active infection, either chorioamnionitis or a prenatal sexually transmitted infection without test of cure; a known uterine cavity anomaly; ongoing postpartum hemorrhage; or retained placenta requiring manual removal or surgical evacuation.[19] Clinical recommendations and medical contraindications to LARC in the US MEC, such as active breast cancer for a hormonal IUD or contraceptive implant, or Wilson disease for a copper IUD, also apply to the immediate postpartum period.[26]

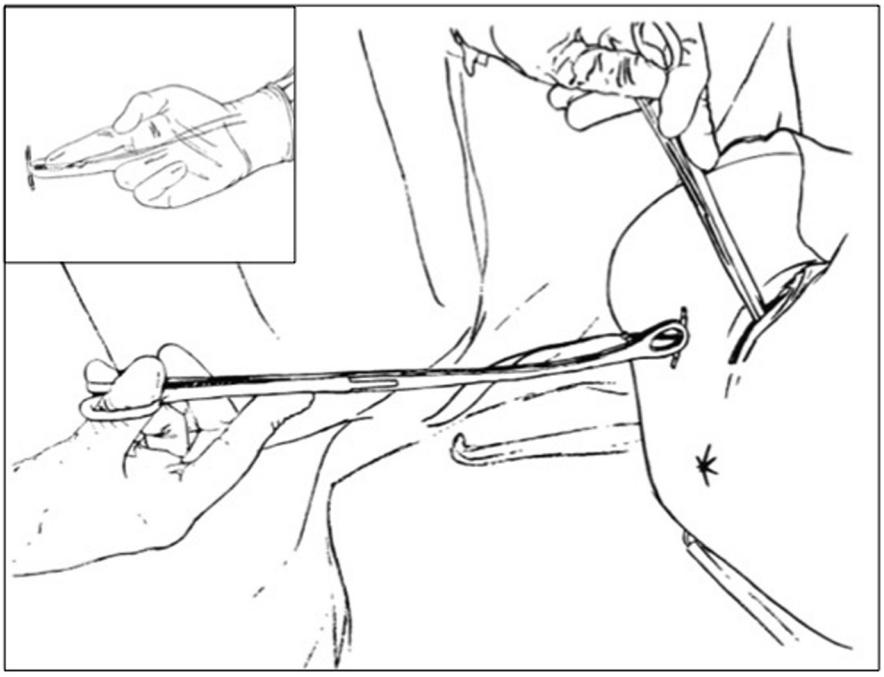
What are the risks of immediate postpartum IUD placement?

Most risks are similar between immediate postpartum IUD insertion and insertion at other time points, with the exception of expulsion, which has a higher risk. Systematic reviews report that perforation and infection risks are not increased, regardless of mode of delivery, when compared with delayed insertion. Vaginal bleeding does not appear to be increased in women with immediate postpartum IUD insertion compared to women who did not receive an IUD, but studies are limited to nonhormonal, copper IUDs.[29,32] A study comparing the 12-month continuation rates between immediate postpartum IUDs and implants in adolescents found requested discontinuation was the same for both methods (14%), but 25% of the IUD users had spontaneous device expulsions, with 11% of expulsions unrecognized.[31] Whereas 6-week postpartum IUD placement has an expulsion rate of 2%, 10–25% expulsion rates have been reported with immediate postpartum placement.[31,33–36] A systematic review in 2018 showed that expulsion rates were 10% if the IUD was placed within 10 minutes or less after placental delivery.[37] The expulsion risk may influence LARC choice for some women. However, although immediate postpartum IUD placement has higher expulsion rates than interval placement, the benefits of immediate placement appear to outweigh the drawbacks. In a 2015 Cochrane Review of 7 randomized controlled trials, although IUD expulsion at 6 months was more frequent with immediate insertion vs. insertion at other times (24 vs. 2%; odds ratio [OR], 4.89; 95% confidence interval [CI], 1.47–16.32), the 6-month IUD continuation rate was higher in the immediate placement group (80% vs. 50%; OR, 2.04; 95% CI, 1.01–4.09). This difference was attributed to access barriers, such as missed appointments for women planning insertion at other times.[29] Nevertheless, the authors cite the importance of patient counseling about expulsion risk. **We recommend that women considering immediate postpartum IUD insertion be counseled that although expulsion rates are higher than with delayed insertion, the benefits appear to outweigh the risk of expulsion, as the long-term continuation rates are higher (GRADE 1C).**

What is the technique for immediate postpartum LARC placement?

Several techniques of immediate postpartum LARC placement are described, using either a ring or Kelly placental forceps, manual insertion with the operator's hand, or the manufacturer's inserter.[18,38,39] A technique described for vaginal delivery includes changing into new sterile gloves, removing the IUD from the inserter, and cutting the strings to approximately 10–12 cm (about the same length as Paragard strings). The cervix is cleansed with betadine or another antiseptic solution, and a hand or retractor is used to visualize the cervix and to grasp the anterior lip with a ring forceps. The IUD wings are carefully grasped with ring or Kelly placental forceps, and, with gentle cervical retraction and under full visualization, the device is passed through the cervix (Figure 1). The ring forceps on the cervix is stabilized, and the hand is transferred to the abdomen to palpate the uterine fundus and to confirm fundal placement of the device before releasing the ring or Kelly placental forceps and moving laterally to avoid IUD displacement with retraction (Figure 2). If the strings were trimmed to 10–12 cm, they should not be visible beyond the cervix and can be trimmed at a follow-up visit after descending with uterine involution. Transabdominal ultrasound may be useful to guide insertion and to ensure fundal placement after a vaginal delivery. High fundal placement of the IUD has been shown to decrease expulsion rates.[39]

FIGURE 1
Immediate postpartum intrauterine device insertion at vaginal delivery can be performed manually or with forceps



EngenderHealth/The ACQUIRE Project. *The Postpartum Intrauterine Device Trainer's Manual: A Training Course for Service Providers*. New York, NY: The ACQUIRE Project; 2008.

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After a cesarean delivery, the IUD is placed in the uterine fundus manually, with ring forceps, or with the manufacturer's inserter after initiation of hysterotomy closure. The strings are then placed into the cervix prior to completion of hysterotomy closure.[18]

Data are limited on the optimal insertion method. A randomized controlled trial of a dedicated IUD inserter found similar rates of total expulsion compared to use of forceps (7.9 vs. 5.4%, $P = .28$) but higher rates of partial expulsion (10.8 vs. 5.0%, $P = .01$) and lower IUD retention at 6 weeks in the inserter group (72.2 vs. 83.7%, $P = .01$).[36]

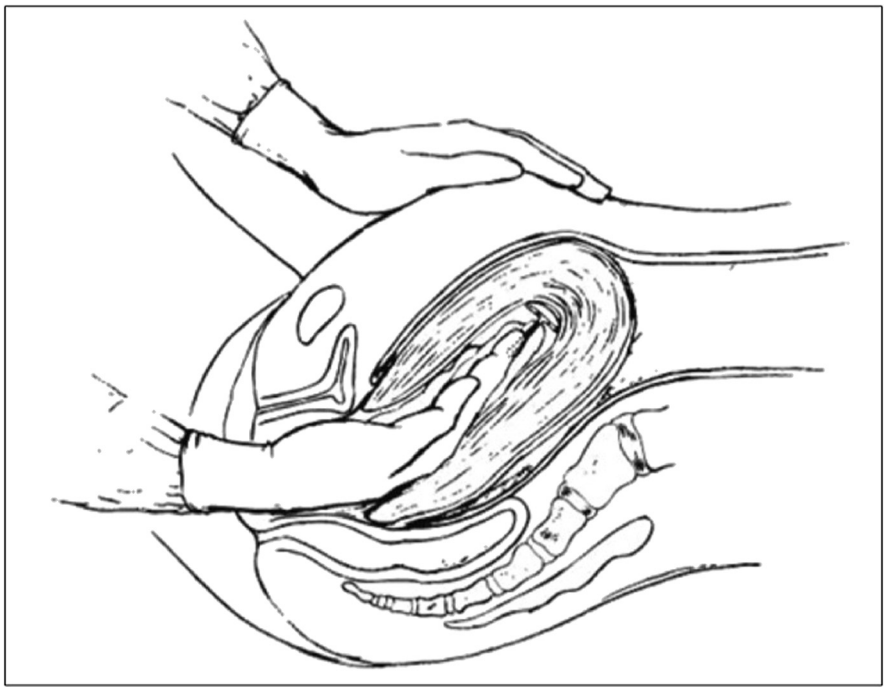
The technique for immediate postpartum contraceptive implant insertion is the same used in other settings and time periods, and can be achieved in the labor and delivery unit or in the postpartum unit. Standard obstetric care provider training provided by the manufacturer is required by the U.S. Food and Drug Administration. ACOG suggests that providers receive formal training to enable appropriate immediate postpartum IUD placement after cesarean and vaginal deliveries.[18] Information on LARC method–specific training opportunities is available on the ACOG website (https://www.acog.org/About-ACOG/ACOG-Departments/Long-Acting-Reversible-Contraception and https://pcainitiative.acog.org/). **We recommend that obstetric care providers wishing to utilize immediate postpartum LARC obtain training specific to the immediate postpartum period (BEST PRACTICE).**

What is the evidence supporting the use of immediate postpartum LARC?

Randomized trials support immediate postpartum over delayed-interval LARC placement for women who desire a LARC method. A 2017 Cochrane review of randomized controlled trials of women desiring a contraceptive implant in the postpartum period compared immediate insertion at delivery with insertion at 4–6 weeks postpartum, and found higher implant initiation among the immediate insertion group (relative risk [RR], 1.41; 95% CI, 1.28–1.55; 3 studies, 410 patients), with little or no difference between groups in implant continuation at 6 months (RR, 1.02; 95% CI, 0.93–1.11; 2 studies, 125 patients).[40] With regard to timing of IUD placement, decisions should include consideration of the significant risk of expulsion associated with immediate postpartum IUD insertion compared with contraceptive implants.

Immediate postpartum LARC placement has been shown to result in high patient satisfaction and acceptability as well as increased method continuation compared with other interval insertions. A prospective cohort of women who received immediate postpartum insertion of either an IUD or implant found high patient satisfaction rates in both groups.[41] Although rates of IUD continuation at 6 months were slightly lower because of expulsion, after IUD replacement the groups had similar continuation at 1 year (84% implant, 81% IUD, $P = .96$).[41]

FIGURE 2
Following intrauterine device insertion at vaginal delivery, fundal placement should be assessed manually or via ultrasound



EngenderHealth/The ACQUIRE Project. *The Postpartum Intrauterine Device Trainer's Manual: A Training Course for Service Providers*. New York, NY: The ACQUIRE Project; 2008.

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Two studies evaluated the cost-effectiveness of immediate vs. interval IUD placement and found that immediate placement was far more cost-effective than interval placement.[42,43] Immediate postpartum implementation of an IUD or implant results in increased short-term contraceptive use and similar or increased long-term contraceptive use when compared with short-acting methods, decreasing the prevalence of short interpregnancy intervals.[44] This difference is demonstrated despite an increased expulsion rate for immediate postpartum IUD placement.[30] **For women who desire and are eligible for LARC, we recommend immediate postpartum placement after a high-risk pregnancy over delayed placement due to overall superior efficacy and cost-effectiveness (GRADE).**

Does immediate postpartum LARC placement inhibit breastfeeding?

Although there is theoretical concern that the progestogens in the hormonal IUD and contraceptive implant could impair the onset of lactogenesis in women receiving immediate postpartum LARC, no reduction in breastfeeding has been observed in randomized trials. A 2011 randomized controlled noninferiority trial of the etonogestrel implant in 69 women demonstrated that breastfeeding outcomes were similar in women who underwent early compared with standard postpartum insertion of the etonogestrel implant.[45] Similarly, a 2017 randomized controlled noninferiority trial of breastfeeding among women with immediate vs. delayed postpartum insertion of the levonorgestrel IUD demonstrated that breastfeeding rates at 8 weeks among women with immediate postpartum placement (79%; 95% CI, 70–86%) were not inferior to those in women with delayed placement (84%; 95% CI, 76–91%). IUD expulsion rates (19% for immediate vs. 2% for delayed placement, $P < .001$) were consistent with the known higher expulsion rate with immediate vs. delayed postpartum intrauterine device insertion.[46] ACOG concluded that women considering immediate postpartum hormonal LARC should be counseled about the theoretical risk of reduction in breastfeeding, but that the preponderance of the evidence has not shown a negative effect on actual breastfeeding outcomes.[18] **We recommend that women considering immediate postpartum LARC be encouraged to breastfeed, as current evidence suggests that these methods do not negatively influence lactation (GRADE 1B).**

What are the barriers to immediate postpartum LARC placement?

Table 2 presents a list of barriers and potential solutions to immediate postpartum placement of LARC methods. Despite their high efficacy and safety profiles, LARC methods are underutilized, and immediate postpartum LARC placement programs are not widespread.[47] There are several obstacles

TABLE 2
Barriers and potential solutions to immediate postpartum LARC placement

Barriers	Potential solutions
Patient misconceptions about safety	Integrated antepartum contraceptive counseling
Outpatient provider time constraints	Dedicated contraceptive counseling appointment
Inpatient staff not supportive	In-service education sessions
Inpatient LARC devices not available	Prenatal assistance with device procurement
Inpatient providers not experienced with placement	Dedicated immediate LARC placement teams In-service training of all providers
Inpatient LARC placement not permitted	Early postpartum LARC placement after hospital discharge
Insurance and payment barriers	Advocacy and education for Medicaid and private insurers

LARC, long-acting reversible contraception.

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to immediate postpartum LARC programs, including health-care system, provider, and payment issues.

Health-care system issues

Health-care system issues are the primary barrier for widespread immediate postpartum LARC use. Coordinated programs involving cooperation among providers, administration, billing, and pharmacy services are not widespread. A qualitative study of 10 Georgia hospitals implementing immediate postpartum LARC programs identified lack of knowledge about immediate postpartum LARC, financial concerns, and competing clinical and administrative priorities as barriers to program implementation.[48] In some religiously affiliated hospitals, immediate postpartum LARC placement may be specifically prohibited, requiring obstetric care providers to shift LARC initiation to the outpatient setting.[49] In settings where immediate postpartum LARC is permitted but the practice has not been integrated into hospital workflows, the responsibility of ordering and supplying an IUD and coordinating immediate postplacental placement falls to the motivated woman and her obstetric care provider.

Provider barriers

Although the benefits of LARC are well known in the family planning community, lack of awareness or misperceptions among MFM subspecialists and general obstetricians can impede immediate postpartum LARC placement.[50] Counseling high-risk women about postpartum contraceptive options may not be prioritized during management of a complicated pregnancy.[51] MFM subspecialists and referring providers may not address LARC and other postpartum contraceptive methods because of lack of knowledge, lack of time, or the perception that it is not their role. One study of outpatient health care provider attitudes found that those without experience in immediate postpartum LARC programs were less likely to consider this time period to be safe compared with interval IUD insertions (OR, 0.40; 95% CI, 0.16–0.79).[52] As a result, high-risk women may receive inadequate contraceptive counseling and delivery, although they face increased risks for subsequent complications as a result of an unplanned pregnancy.

The findings from a 2014 study indicated that interventions may improve provider distrust.[53] After an initiative that included education and feedback sessions on contraception, including immediate postpartum LARC initiation, there was an increase in nurses counseling women about contraception (46% to 71%, $P = .005$) and nurses recommending LARC methods (2% to 32%, $P < .0001$). However, concerns about hormonal contraception and breastfeeding remained prevalent and resulted in low overall recommendation rates for immediate postpartum LARC.[53] Patient misconceptions about safety and expulsion rates are also barriers to use of postpartum LARC.[54,55] It is important that MFM providers caring for high-risk pregnant women discuss the risks of repeat or future pregnancies.

Payment barriers

Insurance coverage and payment difficulties are persistent obstacles to implementation of immediate postpartum LARC placement programs. A 2015 survey of 40 Medicaid agencies found that only 15 programs provided payment, 9 were considering payment, and 16 were not providing or considering payment. Those not providing or considering payment cited misinformation regarding LARC clinical effects as reasons for noncoverage.[56] Although Medicaid reimbursement for LARC is increasing, inpatient billing processes remain unclear for many hospitals and are not well aligned with systems for absorbing the up-front cost of the devices.[57] Insurance coverage of IUD reinsertion in cases of postpartum expulsion and access to and coverage for removal services are also concerns for both women and obstetric care providers.

What is "early postpartum" LARC placement?

In environments where immediate inpatient placement of postpartum LARC is not possible, a program of early postpartum placement (beyond 10 minutes postplacental delivery but within the first few weeks postpartum) may be more feasible, with similar benefit.[57] A feasibility study of levonorgestrel IUD placement at 2 weeks postpartum in 50 women found that 86% continued using their IUD at the end of the 6-month period and that 93% would recommend 2-week postpartum insertion to a friend. There were 2 partial expulsions (4%), consistent with rates of interval insertion and lower than that of immediate postpartum placement. The researchers found that 2-week postpartum IUD insertion is feasible and acceptable to women.[58] This

study suggests that if immediate postpartum placement is not possible, a program of LARC insertion shortly after hospital discharge could provide similar reductions in unplanned and close-interval pregnancy with lower expulsion rates than immediate postpartum placement. **For women who desire and are eligible for LARC, we suggest that early postpartum LARC placement be considered when immediate postpartum LARC placement is not feasible (GRADE 2C).**

What is the MFM subspecialist's role in implementing immediate postpartum LARC programs?

MFM subspecialists are uniquely positioned to promote immediate postpartum LARC placement because of their frequent and in-depth contact with high-risk and medically complex women during pregnancy and the postpartum period. Pregnancy is a time of high motivation for contraception; this is especially true for women with complicated pregnancies who are receiving regular counseling about the maternal and fetal risks to their current and future pregnancies. In addition, although the coordinated systemwide programs needed to ensure inpatient integration of immediate postpartum LARC may be beyond the purview of the individual provider, obstetric care providers should not underestimate their ability to advocate for their patients on both an individual and system-wide level.

What steps can be used to increase access to immediate postpartum LARC?

Patient education

By discussing postpartum contraceptive options early and often, obstetric care providers can increase awareness of the role of immediate postpartum contraception in improving health outcomes and reducing unplanned and close-interval pregnancy. Counseling should be patient-centered and provided in a shared decision-making framework, should avoid coercion, and should include the option for sterilization as well as short-acting methods. This is particularly important for low-income women and women of color, who may be more susceptible to coercion and reproductive injustice.[47] For women desiring future pregnancy, LARC should be encouraged as an option because of the superior efficacy and longer therapeutic window. It is important to explain IUD expulsion rates and to have a plan for contraceptive management should expulsion occur. Anticipatory guidance about side effects such as vaginal bleeding can also be provided. Obstetric care providers can use their familiarity with their patients' health histories to help patients choose a contraceptive method that is compatible with their medical restrictions.[59] Evidence-based contraceptive educational tools are available for use by providers in counseling women regarding contraceptive options. One such tool is Bedsider.org, an online contraceptive support tool developed for sexually active women aged 18–29 years by Power to Decide (formerly the National Campaign to Prevent Teen and Unplanned Pregnancy) and recommended by ACOG. Unfortunately, this and other tools are not specific to the postpartum period and have limitations in generalizability.[60] ACOG has a patient education pamphlet on immediate postpartum use of LARC methods.[61] Additional shared decision-making tools are being developed that will increase future educational options for women and obstetric care providers, including integration of chronic health conditions into the recommendations.[62,63] **We recommend that contraceptive counseling programs be patient-centered and provided in a shared decision-making framework to avoid coercion (BEST PRACTICE).**

Dedicated LARC placement teams

Obstetric care providers can encourage the development of dedicated LARC placement teams to facilitate LARC access in both inpatient and outpatient settings. ACOG's Postpartum Contraceptive Access Initiative provides technical assistance, resources, and free onsite training to support dedicated LARC placement teams (https://pcainitiative.acog.org/). Dedicated LARC placement teams have the expertise to counsel women and to place LARC, provide estimates of demand and inventory stocking needs, and appropriately bill for services. Expanding the range of healthcare professionals who are trained to counsel women and to insert LARC devices could reduce the burden on physicians. Programs to train nurses or midwives in LARC counseling as well as placement may be a model that can be integrated into busy outpatient and inpatient settings. The MFM subspecialist can serve as consultant for these teams to help with contraceptive decision making for women with complex medical conditions. Having obstetric care provider champions can lead to implementation of sustainable programs in areas with progressive public insurance coverage.[64]

Partnership with hospital systems

Systematic implementation of immediate postpartum LARC programs requires that hospitals make LARC methods routinely available for inpatient placement; train staff on ordering, billing, and placement; and integrate the placement procedure into vaginal and cesarean delivery workflows. Support from the MFM subspecialist in partnership with family planning experts could encourage hospital systems to develop guidelines for integrating immediate postpartum LARC into best practices that provide a policy framework for these services. Where inpatient LARC programs are not established, the obstetric care provider can sometimes assist women with obtaining an IUD themselves to bring for placement at delivery and can obtain necessary approvals for immediate postpartum placement. Educating hospital administration about the safety, acceptability, and cost-effectiveness of immediate postpartum LARC can improve the likelihood of institutional support for a placement program. In hospitals with religious or ethical restrictions on contraceptive placement, the obstetric care provider can petition the hospital ethics committee in cases of severe maternal risk or can facilitate an arrangement for early LARC placement shortly after discharge.[49] By acting early, the risk of an insurance lapse prior to LARC placement can be reduced.

Summary of Recommendations

Number	Recommendation	GRADE
1	**We recommend that LARC be offered to women at highest risk for adverse health events as a result of a future pregnancy.**	1B Strong recommendation, moderate-quality evidence
2	**We recommend that obstetric care providers discuss the availability of immediate postpartum LARC with all pregnant women during prenatal care and consult the US MEC guidelines to determine methods most appropriate for specific medical conditions.**	1C Strong recommendation, low-quality evidence
3	**We recommend that women considering immediate postpartum IUD insertion be counseled that although expulsion rates are higher than with delayed insertion, the benefits appear to outweigh the risk of expulsion, as the long-term continuation rates are higher.**	1C Strong recommendation, low-quality evidence
4	**We recommend that obstetric care providers wishing to utilize immediate postpartum LARC obtain training specific to the immediate postpartum period.**	Best Practice
5	**For women who desire and are eligible for LARC, we recommend immediate postpartum placement after a high-risk pregnancy over delayed placement due to overall superior efficacy and cost-effectiveness.**	1B Strong recommendation, moderate-quality evidence
6	**We recommend that women considering immediate postpartum LARC be encouraged to breastfeed, as current evidence suggests that these methods do not negatively influence lactation.**	1B Strong recommendation, moderate-quality evidence
7	**For women who desire and are eligible for LARC, we suggest that early postpartum LARC placement be considered when immediate postpartum LARC placement is not feasible.**	2C Weak recommendation, low-quality evidence
8	**We recommend that contraceptive counseling programs be patient-centered and provided in a shared decision-making framework to avoid coercion.**	Best Practice

Guidelines

The content of this document reflects the national and international guidelines related to long-acting reversible contraception

Organization	Title	Year of publication
American College of Obstetricians and Gynecologists	Committee Opinion No. 670: Immediate Postpartum Long-Acting Reversible Contraception	2016
Centers for Disease Control and Prevention	U.S. Medical Eligibility Criteria for Contraceptive Use	2016
American College of Obstetricians and Gynecologists	Practice Bulletin No. 186: Long-Acting Reversible Contraception: Implants and Intrauterine Devices.	2017
Society of Family Planning	Society of Family Planning Guidelines: Postplacental Insertion of Intrauterine Devices	2017

What are the barriers to LARC placement at the postpartum visit?

Delaying LARC placement until the 6-week postpartum visit and requiring multiple visits for LARC insertion serve as barriers to women desiring LARC. A randomized controlled trial evaluating an educational LARC script provided to women during postpartum hospitalization found high interest in LARC methods but low rates of actual LARC placement at the 6-week postpartum visit. LARC use was equally low among women who received inpatient LARC education and those who did not (17.6 vs. 13.3%, $P = .1$).[65] Another study found that two-thirds of women who desired LARC did not receive it during outpatient appointments and used less effective contraceptive methods. Missed postpartum appointments, requirement of additional placement visits, and the cost of LARC methods contributed to nonuse of these methods among interested women.[66] In many states, women may lose Medicaid coverage at 6 weeks postpartum, limiting their ability to pay for high-cost LARC devices. LARC placement delays with interval insurance lapse or unintended pregnancy prior to LARC placement can lead to pregnancy with associated risks for high-risk women. Inserting an IUD immediately postpartum is a way to overcome the barriers of changing insurance coverage and having to return for the postpartum visit before obtaining long-acting reversible contraception. However, it is also essential for women to understand that a health-care provider is needed for LARC removal, and to discuss strategies for follow-up and removal in case a LARC method is placed immediately postpartum and then the patient loses her insurance coverage prior to a desired removal. Institutional practices of delayed postpartum LARC placement increase the risk of unintended and close-interval pregnancy among high-risk women.

Summary

Immediate postpartum LARC placement can improve health outcomes and reduce unintended and short-interval pregnancy and should be encouraged as an option for medically complex women desiring reversible postpartum contraception. Higher IUD expulsion rates with immediate postpartum placement should be included in patient counseling but do not appear to offset the increased benefits of immediate postpartum LARC placement in terms of IUD retention rates and prevention of close-interval pregnancy. Patient counseling and partnership are keys to the success of immediate postpartum LARC placement programs. MFM partnership with obstetric care, family practice, family planning, nursing, and midwife providers may enhance the effectiveness of immediate postpartum LARC programs. By reducing unplanned and short-interval pregnancy through immediate postpartum LARC, obstetric care providers can promote the long-term health and obstetric outcomes for women with complex medical conditions. MFM subspecialists can contribute to the health of their patients not only by facilitating a successful outcome in their current pregnancy but by optimizing timing for the next pregnancy, if desired.

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