Published in final edited form as:

Contraception. 2017 April ; 95(4): 335–338. doi:10.1016/j.contraception.2016.11.007.

Immediate Postpartum Long Acting Reversible Contraception: The Time Is Now

Michelle Moniz, MD, MSc^{a,b,*}, Tammy Chang, MD, MPH, MS^{b,c}, Michele Heisler, MD, MPH^{b,d,e}, and Vanessa K. Dalton, MD, MPH^{a,b}

^aDepartment of Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI, USA

^bInstitute for Healthcare Policy and Innovation, University of Michigan, Ann Arbor, MI, USA

^cDepartment of Family Medicine, University of Michigan, Ann Arbor, MI, USA

^dDepartment of Internal Medicine, University of Michigan, Ann Arbor, MI, USA

^eSchool of Public Health, University of Michigan, Ann Arbor, MI, USA

Timely access to contraception is vitally important after childbirth. One third of US pregnancies are conceived less than 18 months after a prior birth.[1] These short interval pregnancies are often unintended and are associated with increased risk of adverse maternal and child health outcomes.[2–8]

Use of highly effective contraception is a critically important strategy to prevent unintended pregnancy and achieve appropriate birth spacing. Women using highly effective, long-acting, reversible contraception (LARC) have nearly four times the odds of achieving an optimal birth interval than women using a barrier or no method.[9] However, only 6% of US women have received LARC at three months postpartum.[8] Low LARC utilization does not seem to reflect patient preferences, but rather, barriers to access, such as need for additional visits and potential loss of insurance coverage postpartum.[10] Up to 40–75% of women who plan to use LARC postpartum never obtain it.[11–15] The standard practice of providing contraception at the outpatient postpartum visit has proven inadequate to make LARC accessible or to reduce short interval pregnancy rates.

One promising strategy to overcome access barriers is to provide LARC immediately after childbirth, during the delivery hospitalization[16]. Immediate postpartum contraception is associated with high patient satisfaction, longer contraceptive coverage, fewer unintended pregnancies, and cost savings for payers and healthcare systems compared to outpatient postpartum insertion[14, 17–24]. However, despite evidence of safety, efficacy and patient enthusiasm[13, 25–28], immediate postpartum LARC is not currently available in most maternity settings in the US and is rarely utilized by patients (one study estimates IUD insertion during the delivery hospitalization at 0.27 per 10,000 deliveries)[29].

*Corresponding Author: Michelle H. Moniz, MD MSc, Assistant Professor, Department of Obstetrics & Gynecology, 2800 Plymouth Road, Building #14, Rm G222, Ann Arbor, MI 48109-5276, 734-764-8123, 734-763-5992 (fax), mmoniz@med.umich.edu. Reprint requests may be addressed to Dr. Moniz per above contact information.

Improving access to immediate postpartum LARC is increasingly recognized as a pressing national priority to improve the health of women. The newly released 2016 *US Medical Eligibility Criteria* (US MEC) for contraceptive use reiterated the safety of immediate postpartum LARC. ACOG has identified the immediate postpartum period as “particularly favorable” for LARC insertion and recently recommended that “obstetric care providers should incorporate immediate postpartum LARC into their practices”[10, 26]. Finally, in October 2016, the National Quality Forum endorsed three new contraceptive quality measures, including a measure of postpartum contraceptive utilization that will monitor initiation of LARC within 3 days of delivery. Despite this recognition, significant barriers still exist to providing immediate postpartum LARC to those who desire it.

IMPLEMENTATION CHALLENGES

While the clinical safety and effectiveness of immediate postpartum LARC are well documented, much less is known about how to implement this service in real-world settings. There are a number of implementation challenges for patients, clinicians, and payers that must be overcome. These include:

Billing and Reimbursement

Historically, a major barrier to immediate postpartum contraception has been the resistance of private and public insurers to provide specific payment for inpatient insertion of LARC[30]. This is rapidly changing for Medicaid beneficiaries, with 21 Medicaid agencies beginning to provide such reimbursement since 2012[31, 32]. Additional states may begin providing coverage in response to a 2016 Informational Bulletin from the Centers for Medicaid and CHIP Services focused on postpartum LARC utilization[33]. While reimbursement for inpatient LARC provision is necessary for access, implementation of payment changes has been challenging, with hospitals unsure how to properly code inpatient LARC services, payer systems unfamiliar with inpatient LARC claims, and reimbursement rates too low to cover clinicians’ and health systems’ actual costs [34, 35].

Clinician Expertise

Both qualitative and survey data indicate that providers need training in implant and post-placental IUD insertion before services can be fully implemented[34, 36]. Some providers have outdated views about the safety, effectiveness, and eligibility criteria for immediate postpartum LARC[37–39]. Inadequate immediate postpartum LARC knowledge and experience seriously undermine the maternity care workforce’s capacity to provide highly effective contraception to all postpartum women who desire it.

Service Delivery Processes

A successful immediate postpartum LARC program will require new coordination among several components of obstetrical care. Outpatient clinicians will need to routinely counsel about immediate postpartum LARC and alert intrapartum clinicians – who may be different from outpatient prenatal caregivers – about a patient’s desire for immediate postpartum LARC. Staff availability for device insertion may be challenging on busy and high acuity labor and delivery units. Device stocking on delivery units is another potential barrier,

particularly for IUDs being inserted within 10 minutes of placental delivery. The significant diversity of maternity care sites—in terms of organization, culture, and populations served, creates another potential obstacle for widespread adoption of immediate postpartum LARC services. Implementation activities and tools that work in one setting may be ineffective in other settings.

ADDRESSING IMPLEMENTATION CHALLENGES

Immediate postpartum LARC services remain new in most settings. At least one academic site has documented outcomes in the medical literature,[14, 20] and the implementation experiences of stakeholders in 13 states are also available online.[40] These early experiences suggest that women's health clinicians, hospital leadership, payers, and researchers each have roles in strategies aimed at making immediate postpartum LARC a universal option for interested women. Efforts from each of these stakeholders are needed to ensure that immediate postpartum LARC realizes its potential to help women meet their family planning goals and to improve population health outcomes (Table 1).

Recent reimbursement changes have created a novel opportunity for women's health clinicians to act as champions for immediate postpartum LARC. They can communicate with local payers and policymakers about the health benefits of immediate postpartum LARC and advocate for its widespread coverage. Family planning experts may be particularly well-positioned to train colleagues to provide immediate postpartum LARC. Such training may involve workshops in one's home institution, around one's state, or at national meetings. Standardized simulation workshops may improve clinician knowledge and comfort with immediate postpartum IUD insertion.[41] Clinician champions are respected opinion leaders who can provide peers and hospital leadership with key data demonstrating why they should support immediate postpartum LARC efforts, and in this way, play a critical role in changing culture.

Making immediate postpartum LARC a routine part of inpatient postpartum care requires the support of hospital leadership, such as chief clinical, nursing, pharmacy, and revenue officers. Hospital leaders can support immediate postpartum LARC services by ensuring that hospitals are technically prepared to provide immediate postpartum LARC services. Hospital leaders can assist inpatient pharmacies in developing new protocols for procuring and stocking LARC devices. Administrators can also ensure that billing staff are properly trained to seek reimbursement for immediate postpartum LARC from different payers.

Payers should provide clear and timely information to clinicians and patients about coverage for immediate postpartum LARC. We encourage payers who currently do not cover this service to review the existing data about the health benefits and cost savings associated with immediate postpartum LARC.[19, 22–24] We also encourage payers to provide reimbursement rates that adequately cover the cost of LARC device procurement, stocking, insertion, and re-insertion when needed. It may be helpful for payers to teach maternity care sites how to bill correctly for immediate postpartum contraception.

Finally, researchers can address many of the existing knowledge gaps impeding clinical implementation of immediate postpartum contraception. Researchers can partner with payers to evaluate the population-level health and cost outcomes of this service. For instance, identifying “positive deviants” – maternity care sites that have successfully removed multiple implementation barriers to immediate postpartum contraception – and characterizing their successful strategies could be a valuable resource for others. Such steps could facilitate tailored training interventions for providers. There will also be a need to build rigorous monitoring and evaluation approaches to assess changes in utilization, health outcomes and costs. This information will be important for providers, health systems and payers – and will clarify the value of this service from diverse perspectives.

Women who want to delay or prevent conception after childbirth due to personal, social, economic or health reasons must have access to the full range of contraceptive options, including the most reliable methods. Immediate postpartum LARC is an important strategy to help interested women obtain LARC methods after childbirth. Combined efforts from clinicians, clinical leadership, payers and researchers can accelerate the adoption and availability of immediate postpartum contraception. For women to be fully empowered to improve their and their children’s health, they need access to immediate postpartum contraception.

References

1. US Department of Health and Human Services. Office of Disease Prevention and Health Promotion. [Accessed on 8/21/16] Healthy People 2020. Available at: <http://www.healthypeople.gov/2020/topics-objectives/topic/family-planning/objectives?topicId=13>
2. Conde-Agudelo A, et al. Effects of birth spacing on maternal, perinatal, infant, and child health: a systematic review of causal mechanisms. *Stud Fam Plann*. 2012; 43(2):93–114. [PubMed: 23175949]
3. Conde-Agudelo A, Rosas-Bermudez A, Kafury-Goeta AC. Birth spacing and risk of adverse perinatal outcomes: a meta-analysis. *JAMA*. 2006; 295(15):1809–23. [PubMed: 16622143]
4. Klerman LV, Cliver SP, Goldenberg RL. The impact of short interpregnancy intervals on pregnancy outcomes in a low-income population. *Am J Public Health*. 1998; 88(8):1182–5. [PubMed: 9702144]
5. Zhu BP, et al. Effect of the interval between pregnancies on perinatal outcomes among white and black women. *Am J Obstet Gynecol*. 2001; 185(6):1403–10. [PubMed: 11744916]
6. Zhu BP, Le T. Effect of interpregnancy interval on infant low birth weight: a retrospective cohort study using the Michigan Maternally Linked Birth Database. *Matern Child Health J*. 2003; 7(3): 169–78. [PubMed: 14509412]
7. Zhu BP, et al. Effect of the interval between pregnancies on perinatal outcomes. *N Engl J Med*. 1999; 340(8):589–94. [PubMed: 10029642]
8. White K, Teal SB, Potter JE. Contraception after delivery and short interpregnancy intervals among women in the United States. *Obstet Gynecol*. 2015; 125(6):1471–7. [PubMed: 26000519]
9. Thiel de Bocanegra H, et al. Interpregnancy intervals: impact of postpartum contraceptive effectiveness and coverage. *Am J Obstet Gynecol*. 2014; 210(4):311 e1–8. [PubMed: 24334205]
10. American College of Obstetricians and Gynecologists. Immediate postpartum long-acting reversible contraception. Committee Opinion No. 670. *Obstet Gynecol*. 2016; 128:e32–7. [PubMed: 27454734]
11. American College of Obstetricians and Gynecologists. Access to contraception. Committee Opinion No. 615. *Obstet Gynecol*. 2015; 125:250–5. [PubMed: 25560140]

12. Dahlke JD, et al. Postpartum use of long-acting reversible contraception in a military treatment facility. *J Womens Health (Larchmt)*. 2012; 21(4):388–92. [PubMed: 22017380]
13. Tang JH, et al. Characteristics associated with interest in long-acting reversible contraception in a postpartum population. *Contraception*. 2013; 88(1):52–7. [PubMed: 23158805]
14. 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(6):481 e1–7. [PubMed: 22631865]
15. Simmons KB, et al. Personalized contraceptive assistance and uptake of long-acting, reversible contraceptives by postpartum women: a randomized, controlled trial. *Contraception*. 2013; 88(1): 45–51. [PubMed: 23218851]
16. Rodriguez MI, Evans M, Espey E. Advocating for immediate postpartum LARC: increasing access, improving outcomes, and decreasing cost. *Contraception*. 2014; 90(5):468–71. [PubMed: 25107639]
17. Çelen , et al. Clinical outcomes of early postplacental insertion of intrauterine contraceptive devices. *Contraception*. 2004; 69(4):279–282. [PubMed: 15033401]
18. Guazzelli CA, et al. Etonogestrel implant in postpartum adolescents: bleeding pattern, efficacy and discontinuation rate. *Contraception*. 2010; 82(3):256–9. [PubMed: 20705154]
19. Han L, et al. Preventing repeat pregnancy in adolescents: is immediate postpartum insertion of the contraceptive implant cost effective? *Am J Obstet Gynecol*. 2014; 211(1):24 e1–7. [PubMed: 24631431]
20. Tocce K, et al. Long acting reversible contraception in postpartum adolescents: early initiation of etonogestrel implant is superior to IUDs in the outpatient setting. *J Pediatr Adolesc Gynecol*. 2012; 25(1):59–63. [PubMed: 22051792]
21. Braniff K, Gomez E, Muller R. A randomised clinical trial to assess satisfaction with the levonorgestrel- releasing intrauterine system inserted at caesarean section compared to postpartum placement. *Aust N Z J Obstet Gynaecol*. 2015; 55(3):279–83. [PubMed: 26053465]
22. Garipey AM, Duffy JY, Xu X. Cost-Effectiveness of Immediate Compared With Delayed Postpartum Etonogestrel Implant Insertion. *Obstet Gynecol*. 2015; 126(1):47–55. [PubMed: 26241255]
23. Rodriguez MI, et al. 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(4):304–8. [PubMed: 20227546]
24. Washington CI, et al. Timing of postpartum intrauterine device placement: a cost-effectiveness analysis. *Fertil Steril*. 2015; 103(1):131–7. [PubMed: 25439838]
25. Curtis KM, Tepper NK, Jatlaoui TC, et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2016. *MMWR Recomm Rep*. 2016; 65(RR-3):1–104. <http://dx.doi.org/10.15585/mmwr.r6503a1>.
26. American College of Obstetricians and Gynecologists. Long-acting reversible contraception: implants and intrauterine devices. Practice Bulletin No. 121. *Obstet Gynecol*. 2011; 118:184–96. [PubMed: 21691183]
27. Ogburn JA, Espey E, Stonehocker J. Barriers to intrauterine device insertion in postpartum women. *Contraception*. 2005; 72(6):426–9. [PubMed: 16307964]
28. Potter JE, et al. Unmet demand for highly effective postpartum contraception in Texas. *Contraception*. 2014; 90(5):488–95. [PubMed: 25129329]
29. Whiteman MK, et al. Postpartum intrauterine device insertion and postpartum tubal sterilization in the United States. *American Journal of Obstetrics and Gynecology*. 2012; 206(2):127.e1–127.e7. [PubMed: 21963310]
30. Aiken AR, et al. Global fee prohibits postpartum provision of the most effective reversible contraceptives. *Contraception*. 2014; 90(5):466–7. [PubMed: 25212061]
31. Moniz MH, et al. Characterization of Medicaid policy for immediate postpartum contraception. *Contraception*. 2015; 92(6):523–31. [PubMed: 26452327]
32. [Accessed on 8/13/2016] Medicaid reimbursement for postpartum LARC by state. Available at: <http://www.acog.org/About-ACOG/ACOG-Departments/Long-Acting-Reversible-Contraception/Coding-and-Reimbursement-for-LARC/Reimbursement-Resources-for-Postpartum-LARC-Initiation/Medicaid-Reimbursement-for-Postpartum-LARC-by-State>

33. Center for Medicaid and CHIP Service. [Accessed on August 13, 2016] CMCS Informational Bulletin: State Medicaid Payment Approaches to Improve Access to Long-Acting Reversible Contraception. Available at <https://www.medicaid.gov/federal-policy-guidance/downloads/cib040816.pdf>
34. Moniz, MH., et al. Womens Health Issues. 2016. Medicaid Administrator Experiences with the Implementation of Immediate Postpartum Long-Acting Reversible Contraception.
35. Kroelinger CD, et al. Working with State Health Departments on Emerging Issues in Maternal and Child Health: Immediate Postpartum Long-Acting Reversible Contraceptives. J Womens Health (Larchmt). 2015; 24(9):693–701. [PubMed: 26390378]
36. Holland E, et al. Barriers to Immediate Post-placental Intrauterine Devices among Attending Level Educators. Womens Health Issues. 2015; 25(4):355–8. [PubMed: 26048758]
37. Harper CC, et al. Challenges in translating evidence to practice: the provision of intrauterine contraception. Obstet Gynecol. 2008; 111(6):1359–69. [PubMed: 18515520]
38. Philliber AE, et al. Impact of years of clinical experience on perceived contraindications and barriers to the use of LARC: a survey of family planning providers. Womens Health Issues. 2014; 24(5):503–9. [PubMed: 25213743]
39. Dunn K, Bayer LL, Mody SK. Postpartum contraception: An exploratory study of lactation consultants' knowledge and practices. Contraception. 94(1):87–92.
40. Association of State and Territorial Health Officials. [Accessed on 8/22/2016] Long-Acting Reversible Contraception. Available at: <http://www.astho.org/Programs/Maternal-and-Child-Health/Long-Acting-Reversible-Contraception-LARC/?terms=LARC>
41. Goldthwaite LM, et al. Comfort With Skills and Knowledge After Immediate Postpartum Intrauterine Device Training. Obstet Gynecol. 2016; 128(Suppl 1):6s–11s. [PubMed: 27662005]

Table 1

Multi-stakeholder efforts to accelerate the availability of immediate postpartum contraception

Stakeholder	Activities
Clinicians	<ul style="list-style-type: none"> • Advocate for reimbursement • Create clinician training opportunities • Generate implementation tools
Hospital Leaders	<ul style="list-style-type: none"> • Create protocols for device ordering and stocking • Train billing/coding staff and monitor reimbursements • Identify and address institutional barriers to inpatient contraceptive services
Payers	<ul style="list-style-type: none"> • Provide adequate, specific reimbursement for immediate postpartum LARC • Provide clear information about payment policies • Teach maternity site staff how to bill outside the global fee
Researchers	<ul style="list-style-type: none"> • Identify and monitor training needs in the maternity workforce • Identify unique implementation needs of different maternity care settings • Evaluate and disseminate population-level health and cost outcomes

Table 2**Online Resources for Providing Immediate Postpartum Contraception In Your Local Setting**

Learn about immediate postpartum LARC	ACOG Practice Bulletin and Committee Opinions CDC US Medical Eligibility Criteria (US MEC) for Contraceptive Use, 2016 ACOG list of immediate postpartum LARC publications in medical literature ACOG webinar on providing immediate postpartum LARC
Build insertion skills	USAID Postpartum IUD Curriculum Training Manual and Participant Handbook CARDEA immediate postpartum LARC Insertion eLearning Course SPIRES IUD insertion video Innovating education in reproductive health postpartum IUD insertion workshop Implant insertion video Request Nexplanon in-person workshop
Find out if Medicaid reimburses for immediate postpartum LARC in my state	Medicaid Reimbursement for immediate postpartum LARC By State
Advocate for reimbursement	CMCS Informational Bulletin on State Medicaid Payment Approached to Improve Access to LARC
Stock my pharmacy with immediate postpartum LARC devices	UCSF guidance on forecasting demand, purchasing LARC supplies, and maintaining inventory
Appropriately bill for immediate postpartum LARC services	ASTHO's state-specific coding advice
Learn about clinical performance measures for contraceptive care	National Quality Forum Contraceptive Care Measures Office of Population Affairs presentation on clinical performance measures for contraceptive care

LARC, long-acting reversible contraception; ACOG, American College of Obstetricians and Gynecologists; CDC, Centers for Disease Control and Prevention; USAID, United States Agency for International Development; SPIRES, Stanford Program for International Reproductive Education and Services; CMCS, Centers for Medicaid and CHIP Services; UCSF, University of California, San Francisco