Understanding Patient Preferences about Immediate Postpartum Long-Acting Reversible Contraception

A Qualitative Study

Ann A. Soliman, MD¹; Michelle H. Moniz, MD, MSc^{2,3};
Kayte Spector-Bagdady, JD, MBE^{2,3,4}; Michele Heisler, MD, MPH^{3,5,6};
Zoe Finer¹; Vanessa K. Dalton, MD, MPH^{2,3}

ABSTRACT

Background

The intent of this study was to acquire in-depth understanding about patient preferences regarding immediate postpartum long-acting reversible contraception (LARC) insertion and counseling to facilitate design of patient-centered contraceptive services.

Methods

We recruited pregnant women planning to use LARC (e.g., intra-uterine devices [IUD] and contraceptive implants) postpartum at an academic center where immediate postpartum LARC is not routinely offered. To provide standardized information, participants watched a brief video explaining advantages and disadvantages of immediate inpatient versus interval outpatient postpartum LARC insertion. We then conducted semi-structured interviews about

preferences for inpatient vs. outpatient device insertion. Interviews were audio recorded, transcribed verbatim, and coded using qualitative content analysis.

Results

Respondents (n = 12) were demographically diverse (67% African American, 33% White; income 58% < \$30,000, 17% > \$100,000). Their intended postpartum LARC methods included inpatient IUD (n = 8), outpatient IUD (n = 1), inpatient implant (n = 2), and outpatient implant (n = 1). Perceived benefits of inpatient postpartum LARC insertion included convenience, a postpartum trial period, peace of mind, and ease of insertion. Perceived benefits of outpatient insertion included avoiding IUD expulsion and allowing time for the body to recuperate. Regardless of personal

Author Affiliations: ¹University of Michigan Medical School, Ann Arbor, MI; ²Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI; ³Institute for Healthcare Policy & Innovation, University of Michigan, Ann Arbor, MI; ⁴Center for Bioethics and Social Sciences in Medicine, University of Michigan, Ann Arbor, MI; ⁵Department of Internal Medicine, University of Michigan, Ann Arbor, MI; ⁶University of Michigan School of Public Health, Ann Arbor, MI

Author E-mail List:

anns@med.umich.edu;
mmoniz@med.umich.edu;
kaytesb@med.umich.edu;
mheisler@med.umich.edu;
zfiner@umich.edu;
daltonvk@med.umich.edu

Corresponding Author:

Ann A. Soliman, MD,
anns@umich.edu,
734-834-8342

Conflicts of interest:

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preferences for timing of insertion, all participants supported making inpatient LARC universally available to interested women. Participants preferred that providers initiate contraceptive counseling prenatally. Respondents endorsed repeated in-person conversations and visual “take-aways” (e.g., video, pamphlets) during prenatal care to support contraceptive decision-making.

Introduction

Long-acting reversible contraception (LARC; eg, intrauterine devices [IUDs] and contraceptive implants) is a highly effective tool for women who want to delay or prevent repeat pregnancy after childbirth.¹ Rapid repeat pregnancy is associated with increased risk of complications such as preterm birth, low birth weight, and perinatal death.² For postpartum women, the device can be inserted either during the delivery hospitalization (immediate insertion) or at a subsequent postpartum office visit (interval insertion).^{3,4} Currently, most postpartum LARC insertions are interval procedures; immediate postpartum LARC insertion is rare (14 in 10,000 US deliveries) and unavailable in many settings.⁵ Clinical guidelines from the American College of Obstetricians and Gynecologists (ACOG) and the Centers for Disease Control and Prevention (CDC) affirm the safety and effectiveness of both immediate and interval postpartum LARC insertion and encourage institutions to make both options available to patients.⁶ Enhancing access to both options may help women obtain their preferred contraceptive method and address unmet demand for LARC.^{7,8}

Michigan Medicine at the University of Michigan, like many hospitals nationally, is considering universally offering inpatient postpartum LARC insertion. Better understanding of patients' preferences can facilitate the design of patient-centered contraceptive services that prioritize both access and patient autonomy.⁹ However, it remains unclear how individual patients perceive the advantages and disadvantages of immediate postpartum

Conclusions

Some pregnant women desiring LARC postpartum preferred immediate insertion due to convenience, a postpartum trial period, peace of mind, and ease of peripartum insertion. Our findings suggest that increasing access to immediate postpartum LARC is an important opportunity to meet women's preferences after childbirth.

LARC insertion. Randomized controlled trials and observational cohorts suggest that some women are open to immediate postpartum LARC placement.^{10–12} But little is known about women's preferences regarding counseling about these options or how women might respond if inpatient LARC insertion is desired but contraindicated. Our objective was to acquire in-depth understanding about patient preferences regarding immediate postpartum LARC insertion and counseling about these management options.

Methods

Women receiving obstetric care at Michigan Medicine were recruited via flyers and provider referral between July 2016 and January 2017. Eligible participants (1) were at least 18 years of age, (2) were at least 20 weeks' gestation, and (3) had already decided to use LARC postpartum. Hospitalized patients on the antepartum and labor and delivery units were eligible if they could articulate understanding of study tasks and provide informed consent. All participants had received routine prenatal care. Because inpatient LARC insertion was not universally offered at our institution, only 1 participant had received counseling about this option prior to being contacted by the study team.

The researchers reviewed the medical literature to identify key risks and benefits of immediate versus outpatient postpartum LARC insertion and summarized this information in brief educational videos (IUD: 5 minutes, 1 second long; implant: 3 minutes, 42 seconds long [*available to view online*]).

at michjmed.org).^{3,6,13–15} To elicit patient preferences to inform design of clinical care, the authors also developed an interview guide based on literature review. The educational videos and interview guide were pilot tested with members of our institution's Program on Women's Healthcare Effectiveness Research—an interdisciplinary group of faculty, women's health clinicians, and health services researchers—and iteratively revised based on feedback. The final video covered core counseling information recommended by ACOG: (a) information about the insertion procedure, (b) potential benefits of inpatient insertion (eg, more likely to get desired method, fewer pain/bleeding side effects with insertion, general safety but theoretical risk with breastfeeding, reduced risk of unintended pregnancy), and (c) drawbacks of inpatient insertion (e.g., higher IUD expulsion rate, possible interference with other postpartum care). The final semi-structured interview guide included questions addressing (a) factors influencing contraceptive method choice, (b) personal preference about LARC insertion timing after watching the educational video, (c) reactions to hypothetical clinical scenarios that may preclude immediate postpartum IUD insertion, and (d) contraceptive counseling preferences.¹⁶

Trained research staff (AAS, MHM) met eligible women to obtain informed consent and conduct semi-structured interviews in a private room. Participants completed a brief survey gathering sociodemographic information and watched the educational video prior to the interview to ensure that all interviewees had some fundamental knowledge about the options of immediate postpartum vs. outpatient insertion. Interviews were audio recorded, professionally transcribed verbatim, and analyzed using Dedoose Version 7.5.9 (SocioCultural Research Consultants, LLC, Los Angeles, CA 2016). Two authors (AAS, MHM) coded transcripts and identified themes using qualitative content analysis.¹⁷ An initial codebook was created from the interview guide and revised iteratively during early coding. All transcripts were

coded independently, and rare discrepancies were resolved through discussion. Coded transcripts, key quotes, and key themes were discussed by the entire research team. Interviews were conducted until we reached thematic saturation about preferences surrounding provision and counseling for immediate postpartum LARC insertion.¹⁸ All study procedures were approved by the University of Michigan Institutional Review Board.

Supplemental Interview Guide available online at michjmed.org.

Results

Participants comprised 12 women planning to use a LARC device after childbirth (Table 1). Respondents (n = 12) were demographically diverse (67% African American, 33% White; 58% income ≤ \$30,000, 17% income > \$100,000). All were currently insured (6 public payer, 6 private payer). After watching the educational video, 10 interviewees (8 desiring IUD, 2 desiring implant) stated a preference for inpatient LARC insertion. Four overarching themes emerged regarding women's preferences for postpartum LARC insertion timing and counseling.

Theme 1. Patient-reported benefits of immediate postpartum insertion included the importance of convenience, a postpartum trial period, peace of mind, and ease of the insertion process.

Convenience. Eight of 10 women who preferred immediate insertion cited the convenience of leaving the hospital with their contraceptive method and avoiding the personal burden of outpatient insertion. One respondent, who had 4 other children, commented, “*Why wait the 6 weeks, go home, have to worry about setting up the appointment yourself, making the appointment, you know, finding a sitter . . . and all the little things that are going to come with it*” (interviewee 4, inpatient implant).

Trial period. Women (n = 6) also reported that inpatient insertion offered them a convenient trial period with the LARC device: “*If it's all done right*

TABLE 1. Sociodemographic and Contraceptive History Factors for Interview Participants

Subject ID	Location of Interview	Race	Education	Employment	Income	Insurance	Primiparous	Current Pregnancy Intended	Previous Contraception Used	Intended Postpartum Contraception
1	Outpatient	White or Caucasian	Bachelor's degree	Employed for wages	More than \$100K	Private	Yes	Yes	Birth control pills, Condom, Withdrawal, Rhythm or Natural FP	Hormonal implant (inpatient)
2	Outpatient	Black or African American	Some college or associate's degree	Employed for wages	\$0 to \$30K	Private	Yes	No	Condom	Hormonal implant (outpatient)
3	Antepartum	Black or African American	Less than high school	Homemaker	\$0 to \$30K	Public	No	Yes	Condom, Depo-Provera	IUD (inpatient)
4	Outpatient	White or Caucasian	Some college or associate's degree	Out of work for less than 1 year	\$0 to \$30K	Public	No	Yes	Birth control pills, Depo-Provera	Hormonal implant (inpatient)
5	Outpatient	White or Caucasian	Bachelor's degree	Employed for wages	More than \$100K	Private	Yes	Yes	Birth control pills, Contraceptive patch, Condom, Depo-Provera, Rhythm or Natural FP	IUD (outpatient)
6	Outpatient	Black or African American	Some college or associate's degree	Student	\$0 to \$30K	Public	Yes	No	Hormonal implant, Condom, Withdrawal	IUD (inpatient)

(continued)

TABLE 1. Sociodemographic and Contraceptive History Factors for Interview Participants (*continued*)

Subject ID	Location of Interview	Race	Education	Employment	Income	Insurance	Primiparous	Current Pregnancy Intended	Previous Contraception Used	Intended Postpartum Contraception
7	Outpatient	White or Caucasian	Bachelor's degree	Student	\$0 to \$30K	Public	Yes	No	Birth control pills, Condom, Withdrawal	IUD (inpatient)
8	Outpatient	White or Caucasian	Some college or associate's degree	Employed for wages	\$0 to \$30K	Private	Yes	No	Withdrawal	IUD (inpatient)
9	Outpatient	White or Caucasian	Some college or associate's degree	Employed for wages	\$60K to \$100K	Public	Yes	No	Birth control pills, Condom, Withdrawal	IUD (inpatient)
10	Labor & Delivery	White or Caucasian	Some college or associate's degree	Homemaker	\$30K to \$60K	Private	No	Yes	IUD, Hormonal implant, Birth control pills, Vaginal contraceptive ring, Condom, Withdrawal, Rhythm or Natural FP	IUD (inpatient)
11	Outpatient	White or Caucasian/Black or African American	Some college or associate's degree	Employed for wages	\$0 to \$30K	Public	Yes	No	Birth control pills, Condom, Withdrawal	IUD (inpatient)
12	Antepartum	White or Caucasian	Some college or associate's degree	Employed for wages	\$60K to \$100K	Private	Yes	Yes	IUD	IUD (inpatient)

after delivery, then it's just, I'm kind of in the normal swing of things by the time I get to that postpartum visit and if I have any questions or issues with it, perhaps at that visit, then I would have the opportunity to ask about it" (interviewee 1, inpatient implant).

Interviewees (n = 8) stressed that inpatient IUD insertion was an opportunity to avoid a second procedure in addition to delivery. This opportunity framed how these women interpreted the higher IUD expulsion rate (presented in the video as 6 to 26% with immediate versus 4% with interval insertion):

"26% is still pretty low. That's like a high what, 70s? Like a C-plus . . . so it's like you are still going to get the IUD regardless, but if it falls out, you might have to go back to the doctor" (interviewee 11, inpatient IUD).

Peace of mind. Among women wanting inpatient insertion, several (n = 6) emphasized associated peace of mind regarding avoiding unintended repeat pregnancy:

"I can get pregnant if you look at me long enough . . . [I prefer insertion] right after. Right after I deliver. That way, like I say, I don't have to worry about it. I know it's there, it's done . . . I'm not leaving here with nothing! No, I can't" (interviewee 3, inpatient IUD).

Another woman, pregnant with her first child, expressed a similar desire to achieve peace of mind by easily completing one of her many postpartum responsibilities:

"It just gets everything done and out of the way, one less thing I have to worry about" (interviewee 9, inpatient IUD).

Ease of insertion. For some (n = 7), inpatient insertion was advantageous because of existing analgesia and the relatively minimal discomfort of insertion compared to the discomfort of labor and delivery:

"The epidural would still be in place and all of that so you wouldn't feel as much discomfort" (interviewee 9, inpatient IUD).

"I mean, when you have all this other stuff hooked up to you . . . what am I worried about poking me in the arm, for real" (interviewee 1, inpatient implant).

Perspective of women desiring outpatient insertion. The 2 interviewees preferring outpatient insertion described concerns about potential IUD expulsion and breastfeeding risk, as well as wanting to let the body recuperate after childbirth before initiating contraception.

Regardless of their expressed individual timing preference, and although not specifically asked, each interviewee supported making immediate postpartum LARC insertion available to all eligible women. Respondents emphasized that postpartum contraception was a personal matter and that patient preferences should dictate management decisions in the interest of preserving patient autonomy.

"I think it's wonderful to give people more than one option and let it be their choice whether it's done immediately post-giving birth or six weeks later, because it is a personal preference more so than anything" (interviewee 5, outpatient IUD).

Theme 2. Women prefer that immediate postpartum insertion be prospectively addressed during routine prenatal care, but introducing the topic during labor and delivery may be acceptable in many circumstances.

When asked about the most appropriate time for contraceptive counseling, all interviewees stated that contraception would ideally be discussed during prenatal care—with conversations initiated by providers, because patients might not be thinking about risk of recurrent pregnancy:

“When it got brought up in the third trimester was perfect for me because it was the furthest thing from my mind . . . it’s an important thing to start thinking about and making sure that you have something, a plan in place” (interviewee 5, outpatient IUD).

We asked specifically about offering immediate postpartum insertion to a laboring woman who had not received previous counseling. Interviewees (n = 11) reported this practice was acceptable and, in fact, preferable to not providing the option at all, citing the importance of patient autonomy and potential benefits outweighing potential harms:

“I feel like unintended pregnancies and not having gotten the information ever is worse than perhaps an inopportune time to talk about it” (interviewee 5, outpatient IUD).

Theme 3. Some women desiring inpatient IUD prioritized preferred method over timing, whereas others believed that initiating contraception in the inpatient setting was essential.

When asked about a hypothetical situation that would make inpatient IUD insertion unsafe (eg, chorioamnionitis at time of delivery), expressed preferences were mixed. Two women, highly motivated to prevent unintended repeat pregnancy, were willing to compromise on method choice in order to have another highly effective method started right away:

“As much as I don’t really want the implant-worm in my arm, I would put it there. You are there. It’s like an idiot-proof thing. You can’t get pregnant then—one or the other” (interviewee 12, inpatient IUD).

Other women (n = 5) prioritized receiving their preferred method over inpatient placement, citing the benefits of their preferred method and/or relative drawbacks of other methods:

“I think I would wait if that was the case, based on all the research I’ve done . . . and the people I talked to absolutely love it . . . no, I don’t think I would want to change my form of contraception” (interviewee 9, inpatient IUD).

Theme 4. Women want contraceptive counseling with their provider to happen face-to-face, prenatally, repeatedly, and with take-away resources.

Women (n = 12) expressed desire for both face-to-face conversations with a provider and resources to take with them. Print resources were deemed useful for future reference and for discussions with a partner.

“The talking, of course, I think is always better because then if you’ve got questions they can just outright be answered . . . the brochure and the talking combined I think would be the best” (interviewee 4, inpatient implant).

Women (n = 12) stated that conversations with a provider were important to allow for exploration of their individual preferences. Interviewees (n = 10) also stressed the importance of repeated conversations and time to deliberate about options. Women (n = 12) expressed willingness to undergo contraceptive counseling with non-physician providers of the health care team (eg, nurses, medical assistants), provided they received consistent and reliable information.

Discussion

Findings from a sample of pregnant women who desired LARC after childbirth suggest that immediate postpartum insertion is an attractive option for some women. Interviewees preferring inpatient insertion were motivated by convenience, the option of a postpartum trial period, ease of peripartum insertion, and peace of mind about avoiding repeat pregnancy. Participants expressed desire for repeated prenatal contraceptive counseling and perceived value in both in-person

conversations and take-away resources (eg, video, pamphlets) to support decision-making.

Newly endorsed contraceptive performance measures from major national organizations are focused on increasing inpatient and outpatient postpartum access to all FDA-approved contraceptive methods in order to better meet patient needs and improve reproductive health outcomes.¹⁹ Enhancing contraceptive access is a strategic focus of ongoing national efforts to improve healthcare quality and value by increasing responsiveness to patient preferences and needs.¹⁹⁻²¹ This approach is consistent with other clinical services (such as miscarriage management) that have utilized patient preferences to guide management when there is a lack of clear superiority between treatment options.^{22,23} While prior studies have evaluated implementation of programs to allow immediate postpartum LARC placement, this study is unique in elucidating insertion and counseling preferences of pregnant patients desiring LARC.¹⁰⁻¹²

Our findings suggest concrete ways that patient preferences can guide the design of peripartum contraceptive care. Michigan Medicine is using findings from this study to design a new immediate postpartum LARC service (Table 2). Themes identified in this study will inform the development of standardized processes during prenatal and peripartum care, including creating a tailored data element in the electronic medical record and training clinicians to insert LARC immediately postpartum. To be sure, this is a challenging task requiring involvement of many stakeholders.²⁴⁻²⁷ A growing body of publicly available tools may assist hospitals in initiating LARC services locally.^{24,28,29} Where immediate postpartum LARC services are available, clinicians can educate patients about this option and elicit patient preferences about timing of insertion. For patients who prioritize immediate contraceptive initiation over method choice, clinicians can help patients develop a plan in case inpatient IUD insertion is contraindicated or unsuccessful.

Contraceptive counseling during prenatal care is supported by both patient preferences and national guidelines.¹⁵ Our findings suggest that such counseling would ideally include both repeated face-to-face interactions with a provider and reference materials. Our results suggest that providers can consider offering immediate postpartum LARC to women presenting in labor, even if they were not previously counseled about this option, as a means of respecting patient autonomy and informed choice.

Our findings are subject to certain limitations. All the women interviewed in this study received prenatal care; findings may not be generalizable to women without prenatal care. The educational video ensured a fundamental base of knowledge about contraceptive options during the interview but may have influenced patient perspectives. However, the video is aligned with ACOG counseling recommendations and was revised based on feedback from clinical faculty. By design, qualitative research involves small sample sizes and is not intended to be representative; however, we are reassured that some diversity of opinion may have been captured given the heterogeneity of our sample in terms of race, education, income, and insurance coverage. We designed this study to reach thematic saturation around preferences regarding immediate postpartum LARC insertion, so patient preferences related to outpatient LARC insertion may be another important area for future research.

Conclusion

Both immediate and interval postpartum LARC insertion are safe and effective, but neither option is superior across all patient outcomes. Some pregnant women seem to prefer immediate postpartum LARC insertion. Efforts to facilitate patient-centered peripartum contraceptive care at our institution are focusing on increasing access to inpatient postpartum LARC insertion and high-quality prenatal counseling to support informed, individualized decision-making about timing of LARC insertion.

TABLE 2. Institutional Actions to Meet Patient Preferences Based on Themes Identified in Study

Theme	Our Steps to Meet Patient Preferences
<i>Theme 1: Many interviewees preferred immediate postpartum insertion, citing the importance of convenience, a postpartum trial period, peace of mind, and ease of the insertion process.</i>	<p>Offer immediate postpartum LARC universally to eligible patients.</p> <p>Establish standardized process for peripartum contraceptive counseling using shared decision-making and exploration of patient perceptions of advantages/disadvantages to immediate vs. interval LARC insertion.</p>
<i>Theme 2: Women prefer that immediate postpartum insertion be prospectively addressed during routine prenatal care, but introducing the topic during labor and delivery may be acceptable in many circumstances.</i>	<p>Address contraceptive counseling during prenatal care, over multiple visits if needed.</p> <p>Create standardized data element in electronic medical record to ensure that postpartum contraceptive counseling is offered and to document preferences.</p> <p>Consider addressing postpartum contraception with patients on labor and delivery, even if options were not presented during prenatal care.</p>
<i>Theme 3: Some women desiring inpatient IUD prioritized preferred method over timing, while others believed that initiating contraception in the inpatient setting was essential.</i>	<p>Ensure clinicians are trained to insert LARC devices and counsel patients about postpartum contraceptive options.</p> <p>Prepare women for possibility that inpatient insertion may not be possible and develop plan for this circumstance.</p>
<i>Theme 4: Women want contraceptive counseling with their provider to happen face-to-face, prenatally, repeatedly, and with take-away resources.</i>	<p>Offer both face-to-face counseling and take-away resources (video, pamphlets) to assist with contraceptive decision-making.</p> <p>Establish new workflow to embed postpartum contraceptive counseling into routine prenatal care at all clinical sites in health care system.</p>

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