

# Postpartum IUD insertion: Best practices

Increasing access to contraception in the immediate postpartum period can reduce unintended and short-interval pregnancies, but there are still barriers to use. Here the author explores 2 ideal cases for a postpartum IUD and offers benefits, risks, and instructions for and barriers to placement.

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## CASE 1 Multiparous female with short-interval pregnancies desires contraception

A 24-year-old woman (G4P3) presents for a routine prenatal visit in the third trimester. Her last 2 pregnancies have occurred within 3 months of her prior birth. She endorses feeling overwhelmed with having 4 children under the age of 5 years, and she specifies that she would like to avoid another pregnancy for several years. She plans to breast and bottle feed, and she notes that she tends to forget to take pills. When you look back at her prior charts, you note that she did not return for her last 2 postpartum visits. What can you offer her? What would be a safe contraceptive option for her?

Intrauterine devices (IUDs) are safe, effective, and reported by patients to be satisfactory methods of contraception precisely because they are prone to less user error. The Contraceptive Choice Project demonstrated that patients are more apt to choose

them when barriers such as cost and access are removed and nondirective counseling is provided.<sup>1</sup> Given that unintended pregnancy rates hover around 48%, the American College of Obstetricians and Gynecologists (ACOG) recommends them as first-line methods for pregnancy prevention.<sup>2,3</sup>

For repeat pregnancies, the postpartum period is an especially vulnerable time—non-breastfeeding women will ovulate as soon as 25 days after birth, and by 8 weeks 30% will have ovulated.<sup>4</sup> Approximately 40% to 57% of women report having unprotected intercourse before 6 weeks postpartum, and nearly 70% of all pregnancies in the first year postpartum are unintended.<sup>3,5</sup> Furthermore, patients at highest risk for short-interval pregnancy, such as adolescents, are less likely to return for a postpartum visit.<sup>3</sup>

Short-interval pregnancies confer greater fetal risk, including risks of low-birth weight, preterm birth, small for gestational age and increased risk of neonatal intensive care unit admission.<sup>6</sup> Additionally, maternal health may be compromised during a short-interval pregnancy, particularly in medically complex patients due to increased risks of adverse pregnancy outcomes, such as postpartum bleeding or uterine rupture and disease progression.<sup>7</sup> A 2006 meta-analysis by Conde-Agudelo and colleagues found that waiting at least 18 months between pregnancies was optimal for reducing these risks.<sup>6</sup>



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## Key takeaways

- Immediate postpartum IUD insertion is a safe and effective method for postpartum contraception for many postpartum women.
- Immediate postpartum IUD insertion can result in increased uptake of postpartum contraception, a reduction in short interval pregnancies, and the opportunity for patients to plan their ideal family size.
- Patients should be thoroughly counseled about the safety of IUD placement and risks of expulsion associated with immediate postpartum placement.
- Successful programs for immediate postpartum IUD insertion incorporate training for providers on proper insertion techniques, education for nursing staff about safety and counseling, on-site IUD supply, and reimbursement that is decoupled from the payment for delivery.

Thus, the immediate postpartum period is an optimal time for addressing contraceptive needs and for preventing short-interval and unintended pregnancy. This article aims to provide evidence supporting the use of immediate postpartum IUDs, as well as their associated risks and barriers to use.

### IUD types and routes for immediate postpartum insertion

There are several randomized controlled trials (RCTs) that examine the immediate postpartum use of copper IUDs and levonorgestrel-releasing (LNG) IUDs.<sup>8-11</sup> In 2010, Chen and colleagues compared placement of the immediate postpartum IUD following vaginal delivery with interval placement at 6–8 weeks postpartum. Of 51 patients enrolled in each arm, 98% received an IUD

immediately postpartum, and 90% received one during their postpartum visit. There were 12 expulsions (24%) in the immediate postpartum IUD group, compared with 2 (4.4%) in the interval group. Expelled IUDs were replaced, and at 6 months both groups had similar rates of IUD use.<sup>8</sup>

Whitaker and colleagues demonstrated similar findings after randomizing a small group of women who had a cesarean delivery (CD) to interval or immediate placement. There were significantly more expulsions in the post-placental group (20%) than the interval group (0%), but there were more users of the IUD in the post-placental group than in the interval group at 12 months.<sup>9</sup>

Two RCTs, by Lester and colleagues and Levi et al, demonstrated successful placement of the copper IUD or LNG-IUD following CD, with few expulsions (0% and 8%, respectively). Patients who were randomized to immediate postpartum IUD placement were more likely to receive an IUD than those who were randomized to interval insertion, mostly due to lack of postpartum follow up. Both studies followed patients out to 6 months, and rates of IUD continuation and satisfaction were higher at this time in the immediate postpartum IUD groups.<sup>10,11</sup>

### Risks, contraindications, and breastfeeding impact

**What are the risks of immediate postpartum IUD placement?** The highest risk of IUD placement in the immediate postpartum period appears to be expulsion (TABLE 1). In a meta-analysis conducted in 2022, which looked at 11 studies of immediate IUD insertion, the rates of expulsion were between 5% and 27%.<sup>3,8,12,13</sup> Results of a study by Cohen and colleagues demonstrated that most expulsions occurred within the first 12 weeks following delivery; of those expulsions that occurred, only 11% went unrecognized.<sup>13</sup> Immediate postpartum IUD insertion does not increase the IUD-associated risks of perforation, infection, or immediate postpartum bleeding (although prolonged bleeding may be more common).<sup>12</sup>

**TABLE 1** Benefits and risks of immediate postpartum IUD insertion<sup>8,9,12-14,19</sup>

| Benefits                                | Risks                         |
|---|-------------------------------|
| Reduction in short-interval pregnancy   | Expulsion rate (5%–27%)       |
| Patient convenience                     | Prolonged postpartum bleeding |
| Patient satisfaction                    |                               |
| Safe method of postpartum contraception |                               |

**Are there contraindications to placing an IUD immediately postpartum?** The main contraindication to immediate postpartum IUD use is peripartum infection, including Triple I, endomyometritis, and puerperal sepsis. Other contraindications include retained placenta requiring manual or surgical removal, uterine anomalies, and other medical contraindications to IUD use as recommended by the US Medical Eligibility Criteria.<sup>14</sup>

**Does immediate IUD placement affect breastfeeding?** There is theoretical risk of decreased milk supply or difficulty breastfeeding with initiation of progestin-only methods of contraception in the immediate postpartum period, as the rapid fall in progesterone levels initiates lactogenesis. However, progestin-only methods appear to have limited effect on initiation and continuation of breastfeeding in the immediate postpartum period.<sup>15</sup>

There were 2 secondary analyses of a pair of RCTs comparing immediate and delayed postpartum IUD use. Results from Levi and colleagues demonstrated no difference between immediate and interval IUD placement groups in the proportion of women who were breastfeeding at 6, 12, and 24 weeks.<sup>16</sup> Chen and colleagues' study was smaller; researchers found that women with interval IUD placement were more likely to be exclusively breastfeeding and continuing to breastfeed at 6 months compared with the immediate postpartum group.<sup>17</sup>

To better characterize the impact of progestin implants, in a recent meta-analysis, authors examined the use of subcutaneous levonorgestrel rods and found no difference in breastfeeding initiation and continuation rates between women who had them placed immediately versus 6–8 weeks postpartum.<sup>12</sup>

### Benefits of immediate postpartum IUD placement

One benefit of immediate postpartum IUD insertion is a reduction in short-interval pregnancies. In a study by Cohen and colleagues<sup>13</sup> of young women aged 13 to 22 years

**TABLE 2 Barriers to immediate postpartum IUD placement**<sup>7,21-24</sup>

| Barriers   |
|--|
| Patient misconception  |
| Inadequate counseling about contraception                            |
| Unavailability in the hospital                                       |
| Lack of training and experience for physicians                       |
| Lack of knowledge about postpartum contraception among nursing staff |
| Provider concerns about payment and insurance reimbursement          |
| Religious (Catholic) hospital affiliation                            |

choosing immediate postpartum IUDs (82) or implants (162), the authors found that 61% of women retained their IUDs at 12 months postpartum. Because few requested IUD removal over that time frame, the discontinuation rate at 1 year was primarily due to expulsions. Pregnancy rates at 1 year were 7.6% in the IUD group and 1.5% in the implant group. However, the 7.6% rate in the IUD group was lower than in previously studied adolescent control groups: 18.6% of control adolescents (38 of 204) using a contraceptive form other than a postpartum etonogestrel implant had repeat pregnancy at 1 year.<sup>13,18</sup>

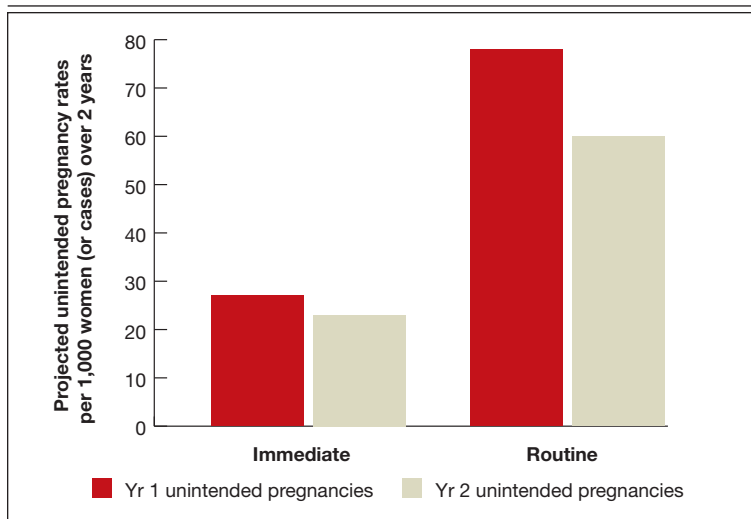
Not only are patients who receive immediate postpartum IUDs more likely to receive them and continue their use, but they are also satisfied with the experience of receiving the IUD and with the method of contraception. A small mixed methods study of 66 patients demonstrated that women were interested in obtaining immediate postpartum contraception to avoid some of the logistical and financial challenges of returning for a postpartum visit. They also felt that the IUD placement was less painful than expected, and they didn't feel that the insertion process imposed on their birth experience. Many described relief to know that they had a safe and effective contraceptive method upon leaving the hospital.<sup>19</sup> Other studies have shown that even among women who expel an IUD following immediate postpartum placement, many choose to replace it in order to continue it as a contraceptive method.<sup>8,9,13</sup>

### FAST TRACK

*7.6% of 82 young women aged 13-22 years who choose immediate postpartum IUD insertion had a repeat pregnancy at 12 months*

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**FIGURE 1** Projected unintended pregnancy rates after immediate vs routine postpartum IUD use<sup>24</sup>



**FAST TRACK**

*Current recommendations to reduce the risk of expulsion are to place the IUD in the delivery room or operating room within 10 minutes of placental delivery*

**Instructions for placement**

- 1. Counsel appropriately.** Thoroughly counsel patients regarding their options for postpartum contraception, with emphasis on the benefits, risks, and contraindications. Current recommendations to reduce the risk of expulsion are to place the IUD in the delivery room or operating room within 10 minutes of placental delivery.
- 2. Post-vaginal delivery.** Following vaginal delivery, remove the IUD from the inserter, cut the strings to 10 cm and, using either fingers to grasp the wings of the IUD or ring forceps, advance the IUD to the fundus. Ultrasound guidance may be used, but it does not appear to be helpful in preventing expulsion.<sup>20</sup>
- 3. Post-cesarean delivery.** Once the placenta is delivered, place the IUD using the inserter or a ring forceps at the fundus and guide the strings into the cervix, then close the hysterotomy.

ACOG does recommend formal training before placing postpartum IUDs. One resource they provide is a free online webinar (<https://www.acog.org/education-and-events/webinars/long-acting-reversible-contraception-overview-and-hands-on-practice-for-residents>).<sup>3</sup>

**CASE 1 Resolved**

The patient was counseled in the office about her options, and she was most interested in immediate postpartum LNG-IUD placement. She went on to deliver a healthy baby vaginally at 39 weeks. Within 10 minutes of placental delivery, she received an LNG-IUD. She returned to the office 3 months later for STI screening; her examination revealed correct placement and no evidence of expulsion. She expressed that she was happy with her IUD and thankful that she was able to receive it immediately after the birth of her baby.

**CASE 2 Nulliparous woman desires IUD for postpartum contraception**

A 33-year-old nulliparous woman presents in the third trimester for a routine prenatal visit. She had used the LNG-IUD prior to getting pregnant and reports that she was very happy with it. She knows she wants to wait at least 2 years before trying to get pregnant again, and she would like to resume contraception as soon as it is reasonably safe to do so. She has read that it is possible to get an IUD immediately postpartum and asks about it as a possible option.

What barriers will she face in obtaining an immediate postpartum IUD?

There are many barriers for patients who may be good candidates for immediate postpartum contraception (TABLE 2, page 25). Many patients are unaware that it is a safe option, and they often have concerns about such risks as infection, perforation, and effects on breastfeeding. Additionally, providers may not prioritize adequate counseling about postpartum contraception when they face time constraints and a need to counsel about other pregnancy-related topics during the prenatal visit schedule.<sup>7,21</sup>

**System, hospital, and clinician barriers to immediate postpartum IUD use**

Hospital implementation of a successful postpartum IUD program requires pharmacy, intrapartum and postpartum nursing staff, physicians, administration, and billing to be aligned. Hospital administration

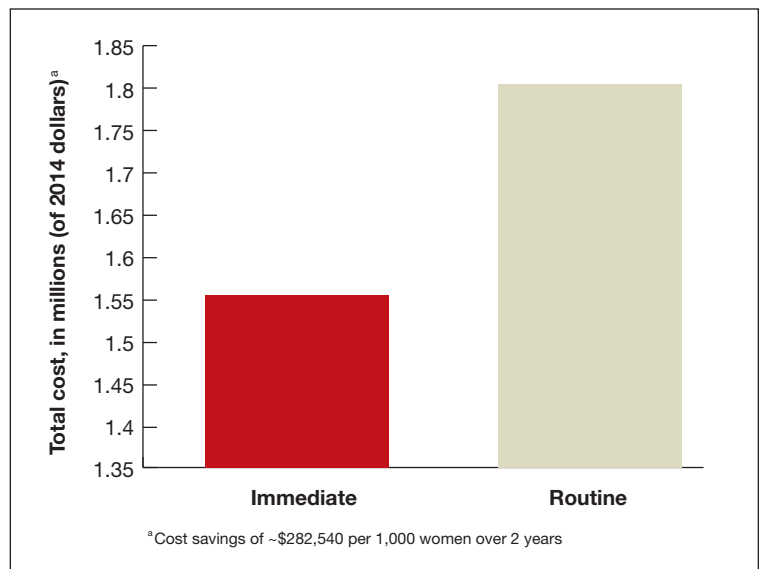
and pharmacists must stock IUDs in the pharmacy. Hospital nursing staff attitudes toward and knowledge of postpartum contraception can have profound influence on how they discuss safe and effective methods of postpartum contraception with patients who may not have received counseling during prenatal care.<sup>22</sup> In a survey of 108 ACOG fellows, nearly 75% of ObGyn physicians did not offer immediate postpartum IUDs; lack of provider training, lack of IUD availability, and concern about cost and payment were found to be common reasons why.<sup>21</sup> Additionally, Catholic-affiliated and rural institutions are less likely to offer it, whereas more urban, teaching hospitals are more likely to have programs in place.<sup>23</sup> Prior to 2012, immediate postpartum IUD insertions and device costs were part of the global Medicaid obstetric fee in most states, and both hospital systems and individual providers were concerned about loss of revenue.<sup>23</sup>

In 2015, Washington and colleagues published a decision analysis that examined the cost-effectiveness and cost savings associated with immediate postpartum IUD use. Accounting for expulsion rates, they found that immediate postpartum IUD placement can save \$282,540 per 1,000 women over 2 years; additionally, immediate postpartum IUD use can prevent 88 unintended pregnancies per 1,000 women over 2 years.<sup>24</sup> Not only do immediate postpartum IUDs have great potential to prevent individual patients from undesired short-interval pregnancies (FIGURE 1), but they can also save the system substantial health care dollars (FIGURE 2).

### Overcoming barriers

Immediate postpartum IUD implementation is attainable with practice, policy, and institutional changes. Education and training programs geared toward providers and nursing staff can improve understanding of the benefits and risks of immediate postpartum IUD placement. Additionally, clinicians must provide comprehensive, nondirective counseling during the antepartum period, informing patients of all safe and effective options.

**FIGURE 2** Projected health care costs of immediate vs routine postpartum IUD insertion<sup>24</sup>



Expulsion risks should be disclosed, as well as the benefit of not needing to return for a separate postpartum contraception appointment.

Since 2012, many state Medicaid agencies have decoupled reimbursement for inpatient postpartum IUD insertion from the delivery fee. By 2018, more than half of states adopted this practice. Commercial insurers have followed suit in some cases, and as such, both Medicaid and commercially insured patients have had increased access to immediate postpartum IUDs.<sup>23</sup> This has translated into increased uptake of immediate postpartum IUDs among both Medicaid and commercially insured patients. Koch et al conducted a retrospective cohort study comparing IUD use in patients 1 year before and 1 year after the policy changes, and they found a 10-fold increase in use of immediate postpartum IUDs.<sup>25</sup>

While education, counseling, access, and changes in reimbursement may increase access in many hospital systems, some barriers, such as religious affiliation of the hospital system, may be impossible to overcome. A viable alternative to immediate postpartum IUD placement may be early postpartum IUD placement, which could allow patients to coordinate this procedure with 1- or 2-week return routine postpartum visits for CD recovery,

### FAST TRACK

*Education and training programs geared toward providers and nursing staff can improve understanding of the benefits and risks of immediate postpartum IUD placement*

mental health screenings, and/or well-baby visits. More data are necessary before recommending this universally, but Averbach and colleagues published a promising meta-analysis that demonstrated no complete expulsions in studies in which IUDs were placed between 2 and 4 weeks postpartum, and only a pooled partial expulsion rate (of immediate postpartum, early inpatient, early outpatient, and interval placement) of 3.7%.<sup>4</sup>

**CASE 2 Resolved**

Although the patient was interested in receiving a postpartum LNG-IUD immediately after her vaginal birth, she had to wait until her 6-week postpartum visit. The hospital did not stock IUDs for immediate postpartum IUD use, and her provider, having not been trained on immediate postpartum insertion, did not feel comfortable trying to place it in the immediate postpartum time frame. ●

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