

# Measuring Expulsion Rates for Quality Improvement Purposes



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the **LARC**  
program  
Long-Acting Reversible Contraception

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# Speaker Disclosures

- **Nexplanon trainer for Organon**

# Learning Objectives

1. **Review lessons from the data about typical expulsion rates**
2. **Describe what factors contribute to higher expulsion rates**
3. **Discuss best practices in calculating expulsion rates**
4. **Discuss how to use expulsion rate data for quality improvement purposes**

# IN THE DATA: IUD EXPULSION RATES AND RISK FACTORS

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# 2020 Systematic Review and Meta-Analysis

- **Objective:** To provide pooled IUD expulsion rates and expulsion risk estimates among women with postpartum IUD placement by timing of insertion, delivery type, and IUD type to inform current IUD insertion practices in the U.S.
- Pooled results from 48 studies representing 7,661 IUD placements; follow-up ranged from 4 weeks to 5 years
- Compared immediate, early inpatient, early outpatient, and interval insertions

# Pooled Complete IUD Expulsion Rates

- Immediate insertion: 10.2% (range 0-26.7)
- Early inpatient insertion: 13.2% (range 3.5-46.7)
- Early outpatient insertion: 0%
- Interval insertion: 1.8% (0-4.8%)

# Potential Risk Factors for Expulsion after Postplacental IUD Insertion

- Vaginal delivery, compared to c-section
- Clinician experience
- Parity
- IUD type



# Role of Ultrasound During Insertion

- **Studies that reported use of ultrasound during postplacental insertion after vaginal delivery showed expulsion rates of 19-24%, vs. 27-37% in studies without ultrasound**
- **No studies directly investigating comparison**
- **SFP recommendations: Reasonable to perform insertions with or without ultrasound guidance**

# 2022 Cohort Study

- Investigated whether the timing of IUD insertion postpartum and breastfeeding are associated with risk of IUD expulsion
- Followed 326,685 women, 5-year cumulative incidence
- Findings: IUD expulsion is rare overall, but more common with immediate postpartum insertion (10.7% vs. 3.2%) and in people who are not breastfeeding (4.6% vs. 3.5%)

# Expulsion Rate Calculation

- **Number expelled/number placed**

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- Number expelled/number placed
- Denominator size
- Remember that expulsion rate will likely decrease with experience (time)

# Using Data for Quality Improvement

- Insertion timing (10 minutes!)
- Ultrasound
- Trainee involvement
- Breastfeeding status
- Expulsion timing
- Contraceptive choice following expulsion
- Postpartum visit attendance (controls!)

# QUESTIONS?

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# References

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