Does same-day initiation of subdermal implants increase the risk of luteal phase pregnancies?

Jeanelle Sheeder MSPH PhD1,2, Marissa Peters MPH1, Molly Richards MD2, & Stephanie Teal MD MPH1,2
University of Colorado School of Medicine, Departments of Obstetrics and Gynecology1 and Pediatrics2

Background

Contraceptive implants are one of the most effective contraceptives and are recommended as a first-line method because they require a single act of motivation for long-term use, eliminating adherence and user-dependence from the effectiveness equation. ¹

Same-day contraceptive initiation at any time in the cycle (QuickStart; QS) is effective at overcoming many barriers which delays starting a new method but, there is a small risk of luteal phase pregnancy.

Methods

• RETROSPECTIVE COHORT OF ADOLESCENTS RECEIVING IMPLANTS VIA MODIFIED QS
• 12-24 years old, negative pregnancy test, patient at BC4U, an adolescent-specific Title X clinic in Aurora, Colorado

Providers inserted as per standard guidelines OR modified QS, which included:

- Patient report of condom use or abstinence
- Since LMP
- Insertion within 5 days of menses onset
- Pregnancy within 7 days from discontinuation of hormonal contraception
- No contraception use, patient sexually active, and provider comfortable with emergency contraception (EC) provision

We reviewed medical records of all patients receiving implants under this protocol over 36 months (4/27/2009-12/31/2013).

Two groups: Women within standard guidelines or outside guidelines with modified QS.

PRIMARY OUTCOME: No evidence of pregnancy (test, visit) following implant placement.

Results

Within standard guidelines:
- Older (20.2 ± 2.6 vs. 19.4 ± 2.6; p<0.001)
- White (40.2% vs. 29.5%; 1.6, 1.4-1.9; p<0.001)

3,181 Implants placed at BC4U

1,312 (41.2%) Standard guidelines
1,869 (58.8%) Modified QS

1,132 (2.4%) Given EC
1,281 (97.6%) No EC

17 (54.8%) Pregnancy status known
643 (50.2%) Pregnancy status known

191 (10.2%) Given EC
1,678 (89.8%) No EC

124 (64.9%) Pregnancy status known
942 (56.1%) Pregnancy status known

0 Pregnant
2 (0.3%) Pregnant

2 (1.6%) Pregnant
8 (0.8%) Pregnant

OBJECTIVE: To determine pregnancy rates in young women initiating subdermal implants via a modified QuickStart approach

STANDARD GUIDELINES for insertion of contraceptive implants:
- negative pregnancy test AND Insertion within 5 days of menses onset
- ≤7 days from discontinuation of hormonal contraception

Pros:
- Immediate initiation provides rapid protection
- Prevents loss of patient enthusiasm
- Avoids costs and barriers from multiple appointments
- Frees up clinic resources for new patients

Cons:
- Possibility of luteal phase pregnancy
- Delay in ID of unsuspected pregnancy b/c no withdrawal bleed expected
- Patient history may be unreliable in adolescents
- Risk wasting costly device

Discussion

• Adolescents are at high risk for unintended pregnancy and may have many barriers to repeat visits.
• Providers should not delay initiation of contraceptive methods in adolescents if they can reasonably assume they are not pregnant.
• <3% of implant QuickStart patients experienced a luteal phase pregnancy.
• Adopting more liberal eligibility criteria for contraceptive initiation, based on a reasonable assumption that patient is not pregnant, does not result in more luteal phase pregnancies, even in a young population with complex reproductive behaviors and challenging historical narratives.

References


Acknowledgements

We would like to thank the amazing staff of the BC4U clinic and the Colorado Initiative to Reduce Unintended Pregnancy for providing funds to support the BC4U clinic.