Immediate Start of Hormonal Contraceptives for Contraception

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Overview

Background

Health care providers often tell women to wait until the next menses to begin hormonal contraception. The main intent is to avoid contraceptive use during an undetected pregnancy.

An alternative is starting immediately with back-up birth control for the first 7 days. Immediate initiation was introduced with combined oral contraceptives (COCs), and has expanded to other hormonal methods.

How immediate start compares to conventional (menses-dependent) start is unclear regarding effectiveness, continuation, and acceptability.

Immediate-start approach may improve women's access to, and continuation of, hormonal contraception.

Objective

To examine randomized controlled trials of immediate-start hormonal contraception for differences in effectiveness, continuation, and acceptability.

Criteria for inclusion

All randomized controlled trials that compared:

1) immediate start of hormonal contraceptives to conventional start;
2) immediate start of different hormonal contraceptive methods with each other.

Hormonal contraceptive types: oral, intramuscular, transdermal, or transvaginal.

Outcomes: contraceptive effectiveness, continuation rates, bleeding patterns, acceptability, and side effects.

Included Studies

Description of studies

Five randomized controlled trials included 2427 women.

Sample sizes ranged from 60 to 1720, with an average of 485.

All trials were conducted in the USA.

Treatment duration:

- 3 cycles or 84 to 90 days (3 trials);
- 6 cycles (2 trials).

Immediate start: initiating contraception during the first visit.

Conventional start: instructing to start during the next menses.

Comparisons:

- immediate versus conventional start (N=3),
- immediate versus bridge method (N=1),
- two immediate start methods (N=1).

Four trials were conducted by the same research group (Rickert 2007; Westhoff 2003; Westhoff 2005; Westhoff 2007).

Losses to follow up ranged from 2% to 32%.

Study	Treatment	Comparison	Outcome data
Immediate versus conventional start			
Westhoff et al, 2003 (N=113)	Immediate start of COC (norethindrone 1 mg plus ethinyl estradiol (EE) 35 µg)	Conventional start of same COC	Pregnancy Method discontinuation Cycle control Satisfaction
Murthy et al, 2005 (N=60)	Immediate start of contraceptive patch (containing norelgestromin 6 mg plus EE 75 µg)	Conventional start of contraceptive patch	Method discontinuation Cycle control
Westhoff et al, 2007 (N=1720)	Immediate start of OC (type depended on clinician preference)	Conventional start of OC	Pregnancy Cycle control
Rickert et al, 2007 (N=333)	immediate injection of DMPA (depot medroxyprogesterone acetate)	Contraceptive bridge to DMPA – choice of pills, patch, or ring before DMPA (21-day supply)	Pregnancy Method discontinuation Satisfaction
Comparison of two immediate-start methods			
Westhoff et al, 2005 (N=201)	Immediate use of the vaginal contraceptive ring (daily release: etonogestrel 120 µg plus EE 15 µg)	Immediate start of COC (norgestimate 180/215/250 µg plus EE 30 µg)	Pregnancy Method discontinuation Cycle control Satisfaction

Methods

Search strategies

Searched computerized databases MEDLINE, POPLINE, CENTRAL, LILACS, and EMBASE.

Examined reference lists of relevant articles.

Wrote to researchers for information about other published or unpublished trials.

Study selection & assessment

One author reviewed all titles and abstracts and second author reviewed categorization.

Studies were examined for methodological quality: study design, randomization method, allocation concealment, blinding, losses to follow up, and early discontinuation.

Data extraction & synthesis

Data were abstracted by two authors; one entered data into RevMan, and second author verified correct entry.

Dichotomous variables: Peto odds ratio (OR) with 95% confidence interval (CI).

Continuous variables: Mean difference with 95% CI.

Effects of Interventions

Interventions in the five trials varied in content and format, so no meta-analysis was conducted.

Effectiveness

- Immediate- and conventional-start groups were similar for pregnancies in 2 trials of OCs, including the trial with 1720 women (OR 0.89; 95% CI 0.63 to 1.26).
- Immediate DMPA group was less likely to become pregnant than 'bridge to DMPA' group (see figure).
- Trial of immediate-start methods (ring versus COC) reported no pregnancies.

Contraceptive method discontinuation

Study arms were similar for method discontinuation in these trials.

Cycle control

- 2 trials of immediate versus conventional start reported bleeding data; study arms had similar bleeding profiles.
- Trial of immediate-start methods showed fewer bleeding problems for ring versus COC (see figures).

Adverse events (reporting of AE data varied)

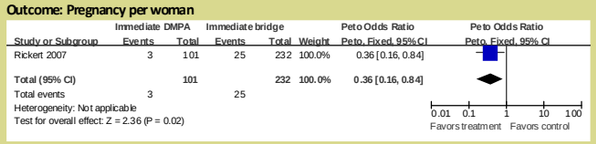
- Nausea was similar for both patch groups (Murthy 2005).
- No AEs were noted for either DMPA group (Rickert 2007).
- Only SAEs reported in Westhoff 2007; OC groups were similar.
- Trial of immediate-start methods (Westhoff 2005) showed 6 of 10 side effects were less common for ring versus COC users.

Satisfaction

- Immediate DMPA group was more likely to be satisfied than bridge to DMPA group (see figure).
- Immediate- and conventional-start COC groups were similar.
- Trial with 2 immediate-start arms: more women in ring group were satisfied versus COC group.

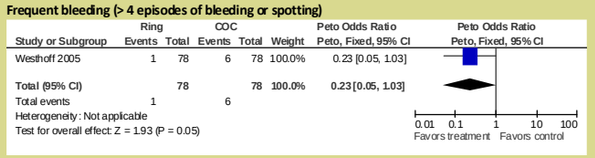
Comparison: Immediate DMPA versus contraceptive bridge to DMPA

Outcome: Pregnancy per woman

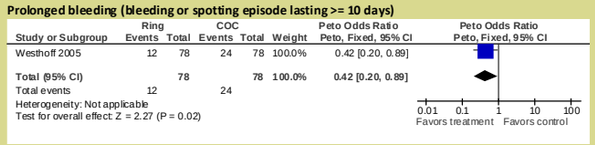


Comparison: Immediate ring versus immediate COC

Frequent bleeding (> 4 episodes of bleeding or spotting)

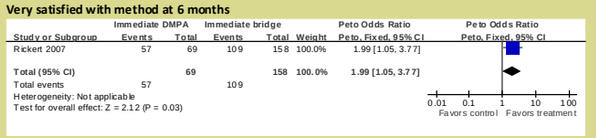


Prolonged bleeding (bleeding or spotting episode lasting >= 10 days)



Comparison: Immediate DMPA versus contraceptive bridge to DMPA

Very satisfied with method at 6 months



Summary Comments

Discussion

We found little evidence that immediate start improves continuation or decreases unintended pregnancies.

Most studies were underpowered for pregnancy, but the groups were similar for pregnancy in the large trial.

One trial showed lower pregnancy risk with immediate start of DMPA. High losses in that trial could have biased the results.

All trials were fairly recent, but did not follow CONSORT guidelines for reporting.

This review was limited due to having only 5 trials. Only 4 compared immediate-start and conventional-start methods. Those 4 trials studied different contraceptive methods: skin patch, DMPA, a COC, and various OCs.

Conclusions

Immediate start is one of several options for starting hormonal contraceptives.

More trials are needed of immediate versus conventional start of the same hormonal contraceptive.

Longer and better follow up would help assess method continuation and pregnancies.

Consistent reporting of bleeding and other side effects would aid interpretation across trials.

For more information, contact llopez@fhi.org

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