

# Letrozole vs clomiphene citrate in the management of infertility in women with polycystic ovary syndrome

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## Abstract

**Background:** Poly cystic ovary syndrome (PCOS) is the most common endocrine disorder leading to anovulatory infertility. Both clomiphene citrate and letrozole are widely used for ovulation induction, but their relative effectiveness remains a subject of debate.

In this literature review we critically analyze randomized controlled trials comparing letrozole to clomiphene citrate in respect to:

- main outcome: ovulation rate, pregnancy rate and pregnancy outcome
- secondary outcome: miscarriage rate, endometrial thickness, multiple pregnancy and side effects of the medications

**Methodology:** A review of published articles was conducted including systematic review and meta-analysis, double blind randomized controlled trials focusing on data from the last 5 years, with the focus of the study on ovulation rate, pregnancy rate and outcome (live birth rates), with some secondary outcomes such as miscarriage rate and endometrial thickness.

**Results:** Letrozole showed better outcome than clomiphene citrate in terms of mean endometrial thickness, ovulation rate and pregnancy rate and outcomes with better side effect profile observed in some trials.

### Key words:

Polycystic ovary syndrome (PCOS), letrozole, clomiphene citrate