

FPIN's Help Desk Answers

Treatment Duration for Etonogestrel Implant

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Clinical Question

Is the etonogestrel subdermal implant (Nexplanon) effective beyond the recommended three-year treatment duration?

Evidence-Based Answer

The etonogestrel subdermal implant is approved by the U.S. Food and Drug Administration for contraception for up to three years, but it seems to be effective for up to five years. (Strength of Recommendation [SOR]: B, based on a randomized controlled trial and prospective cohort study.) When the implant is used for up to five years, failure rates are the same among women who are normal weight, overweight, or obese. (SOR: B, based on a prospective cohort study.)

Evidence Summary

A 2016 open-label, multicenter trial compared 390 patients who agreed to extend their three-year etonogestrel single-rod implant an additional two years with 522 participants who had the five-year dual-rod levonorgestrel implant (Norplant).¹ Five-year pregnancy rates were similar between the groups: 0.6 per 100 woman-years (95% confidence interval [CI], 0.2 to 1.8) in the etonogestrel group vs. 0.8 per 100 woman-years (95% CI, 0.2 to 2.3) in the levonorgestrel group. No pregnancies occurred in either group during years 4 and 5. More women in the etonogestrel group reported heavy bleeding during years 4 and 5 (1.4 and 3.4 per 100 women in years 4 and 5,

respectively, vs. 0.8 and 2.3 per 100 women in the levonorgestrel group; $P < .05$).

An ongoing prospective cohort study that started in 2009 and reported data in 2017 enrolled patients with an etonogestrel implant who were willing to continue its use for an additional two years.² Etonogestrel levels were obtained periodically and stratified by the women's body mass index. Unintended pregnancies were calculated per 100 woman-years. Thus far, 291 women in years 4 and 5 of use have completed 444 woman-years of follow-up with no pregnancies. The failure rate has been calculated at 0 (one-sided 97.5% CI, 0 to 1.5 for four-year use and 0 to 2.7 for five-year use per 100 woman-years). Median etonogestrel levels were statistically different between groups but remained above the threshold for ovulation.

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References

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