

Is the 52-mg LNG-IUD effective as emergency contraception?

Yes, according to the authors of a randomized multicenter trial of more than 600 participants who received an intrauterine device (IUD) for emergency contraception (EC). The authors found that the levonorgestrel (LNG)-releasing IUD was not inferior to the copper IUD in preventing pregnancy when placed within 5 days after unprotected intercourse.

Turok DK, Gero A, Simmons RG, et al. Levonorgestrel vs copper intrauterine devices for emergency contraception. N Engl J Med. 2021;384:335-344.

to investigate the EC effectiveness of the LNG-IUD compared with the copper IUD.³

Details of the study

Turok and colleagues recruited participants aged 18 to 35 who requested EC from 6 family planning clinics in Utah from 2016 to 2019. Participants who reported unprotected intercourse within the past 120 hours and who desired an IUD to prevent pregnancy for at least 1 year were randomly assigned to receive either the LNG-IUD or the copper IUD. Individuals were excluded from the trial if they had contraindications to IUD placement, were breastfeeding, had abnormal uterine bleeding, had irregular menses, were currently using highly effective contraception, or had recent EC use. Researchers determined pregnancy status at 1 month through a pregnancy test or clinical records review.

Results. Of 711 participants randomly assigned, 317 who received the LNG-IUD and 321 who received the copper IUD provided 1-month outcome data. Pregnancy 1 month after IUD placement occurred in 1 participant (0.3%) in the LNG-IUD group and in no participants in the copper IUD group (0%). The between-group difference of 0.3 percentage points was within the margin of noninferiority and was not significant.

FAST TRACK

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EXPERT COMMENTARY

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Emergency contraception refers to therapies used to prevent pregnancy after inadequately protected intercourse.¹ Evidence-based forms of EC available in the United States include oral LNG, oral ulipristal acetate, and the copper IUD. The copper IUD provides not only EC but also highly effective contraception after placement.² The LNG-IUD has a favorable side effect profile compared with the copper IUD and is theorized to act as EC through direct interference with sperm and oviduct transport.³ Recently, Turok and colleagues conducted a noninferiority trial designed

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WHAT THIS EVIDENCE MEANS FOR PRACTICE

The study by Turok and colleagues is the largest randomized controlled trial to date of IUDs as EC. It demonstrated that LNG-IUDs are noninferior to copper IUDs in preventing pregnancy when placed within 5 days of unprotected intercourse. IUDs offer advantages over oral EC methods: only IUDs provide ongoing contraception after EC, and IUD efficacy does not vary by body mass index. It is reasonable for clinicians and patients to consider LNG-IUDs among EC options after shared decision making.

This study suggests that quick-start placement of the LNG-IUD at any time in the menstrual cycle is reasonable given its effectiveness as EC. Additionally, there were no pregnancies among 138 study participants who resumed intercourse within 7 days of LNG-IUD placement, most of whom did not use backup contraception.⁵ While current guidelines still recommend backup contraception after LNG-IUD placement, clinicians may reassure patients with unprotected intercourse following any type of IUD placement about the low risk of pregnancy.

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trial enrolled women at potentially higher risk of pregnancy with multiple episodes of intercourse and found fewer pregnancies than expected. Randomization ensured equivalence between groups, with the exception of the reason for needing EC.

Study limitations include a higher than expected rate of loss to follow-up, requiring clinical records and survey data to confirm pregnancy status. After randomization, clinicians were unable to place IUDs in more than 5% of participants in both groups; noninferiority was demonstrated nonetheless. This study did not include participants receiving oral EC, so direct comparison of effectiveness is not possible. Pregnancy rates among IUD users in this study were favorable to rates reported in previous studies of oral EC.⁴

When choosing an IUD for contraception, more women select the LNG-IUD for its favorable side effect profile and reduction in menstrual bleeding. In this randomized IUD study, only 7% of eligible participants enrolled, potentially introducing selection bias. The majority who declined enrollment did not want an IUD. Previous studies that allowed participants to choose their IUD had higher enrollment rates. ●

Study strengths and limitations

This large, multicenter randomized controlled trial contributes novel information about the effectiveness and noninferiority of the LNG-IUD as EC. Unlike prior studies of oral EC, which commonly limited participants to 1 episode of unprotected intercourse, this

FAST TRACK

When choosing an IUD for contraception, more women select the LNG-IUD for its favorable side effect profile and reduction in menstrual bleeding

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