Is the LNG–IUS as effective as endometrial ablation in relieving menorrhagia?

**Yes** According to this meta-analysis of six randomized, controlled trials involving 390 women, the levonorgestrel intrauterine system (LNG–IUS) (Mirena) reduces heavy menstrual bleeding as effectively as endometrial ablation (manual hysteroscopy or thermal balloon ablation) for as long as 24 months.


**EXPERT COMMENTARY**
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Menorrhagia is a common problem for which many women consult a physician. Evaluation requires the exclusion of serious pathology, and treatment entails reducing menstrual blood loss and improving quality of life.

Historically, hysterectomy was the only alternative to medical treatment. However, endometrial ablation and the LNG–IUS have both proved to be effective, and less invasive, therapies.

Until recently, the average ObGyn in the United States placed only about four intrauterine devices (IUDs) a year. This low volume made many practitioners reluctant to prescribe the IUD, but we are seeing a resurgence in use.

**Details of the study**
This analysis, which meets Quality of Reporting of Meta-analyses (QUOROM) guidelines, was restricted to studies that included pre- and posttreatment assessment of menstrual blood loss using the Pictorial Blood Loss Assessment Chart (PBLAC). Although the PBLAC has limitations, it is one of the more practical, objective measures available. The PBLAC score does not yield an exact measure of blood loss, but it has been found to correlate well with menstrual blood volume. When it is used to evaluate menstrual blood loss of 80 mL or more, its specificity and sensitivity exceed 80%.

In reviewing randomized, controlled trials for this study, the authors found only a small number (n = 6) that met their criteria, and those studies involved a relatively small number of patients (LNG–IUS, n = 196; endometrial ablation, n = 194), limiting the statistical power of this investigation.

Both treatment modalities were associated with a reduction in menstrual blood loss, and the degree of the reduction was similar between modalities at 6, 12, and 24 months.

The treatment failure rate was not time-adjusted; nor was the study powered to address the question of failure.

Only two studies assessed the PBLAC score at 6 months, five did so at 12 months, and only two did so at 24 months. The small sample size limited the power to detect differences between treatment modalities.

**WHAT THIS EVIDENCE MEANS FOR PRACTICE**
Although the data presented in this study are not definitive, the findings do support the growing body of data suggesting that these two treatments are, in some respects, equivalent options. At the same time, they are different procedures with distinct risks and considerations. When deciding between them, a patient’s desire for fertility may tip the scales in favor of the LNG–IUS.

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number of women who had 24 months of follow-up limits the strength of the conclusion.

How this study compares with other investigations
As Kaunitz and colleagues note in their meta-analysis, studies comparing the LNG-IUS with endometrial ablation have produced conflicting findings about the reduction of menstrual blood loss: Some have found the modalities to be equally effective, others have found the LNG-IUS to be more effective, and still others have demonstrated higher efficacy for endometrial ablation. A recent Cochrane review reported that the LNG-IUS produced smaller mean reductions in menstrual blood loss than endometrial ablation did.2

When quality of life is the main consideration, data point to equivalence of options
The reduction of menstrual blood loss is only one area of focus in the treatment of menorrhagia, part of the larger goal of improving quality of life. Two Cochrane reviews concluded there is no difference between the LNG-IUS and endometrial ablation in regard to satisfaction rates or quality of life.2,3 Five studies reported quality of life scores; all five found them to be equivalent between modalities.3

References