

BJOG-20-1830.R3: The levonorgestrel intrauterine system versus endometrial ablation: when the choice of treatment goes beyond its efficacy

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Endometrial ablation and levonorgestrel intra-uterine system (LNG-IUS) are two well-established treatment options for women with heavy menstrual bleeding (Bergeron C, Hum Reprod Update 2020;26(2):302-11) that have contributed to the important decrease in hysterectomies over the last decades (Bergeron AM et al. J Obstet Gynaecol Can 2020;42(12):1469-74). Van den Brick et al. present a cost-effectiveness analysis comparing the two options, in which a treatment strategy starting with the LNG-IUS is less costly than a strategy starting with endometrial ablation. Up to now, economic analyzes mostly relied on simulation modeling and conclusions could vary depending on assumptions for efficacy and discontinuation in each arm. This study was based on actual data from an RCT with a 2-year follow-up.

Despite the 43% discontinuation rate for LNG-IUS, this method was cheaper at 2 years and this conclusion stood up to sensitivity analyzes. The LNG-IUS remained superior despite the assumption of an ambulatory setting for endometrial ablation, but this analysis needs to be interpreted with caution. Data was lacking on costs of the outpatient setting and saving of only \euro111 was estimated when comparing to the inpatient setting (\euro2,241 versus \euro2,352). In other studies, the outpatient hysteroscopy was associated with substantial savings, being 2 to 4 times cheaper (Bennett A et al. J Obstet Gynaecol Can 2019;41(7) :930-41). Indeed, costs are always subject to vary from region to region with possibly different conclusions in different settings, but clearly an outpatient procedure reduces the cost difference between the two methods.

Beyond 2 years, data is lacking. The two methods have been compared in RCT at up to 5 years (Bergeron C, Hum Reprod Update 2020;26(2):302-11) and we do not know if one method is superior the other to prevent longer term failures and re-interventions. The LNG-IUS requires replacement every 5 years but seems to decrease the risk of eventually requiring a hysterectomy in younger patient (Bergeron C, Hum Reprod Update 2020;26(2):302-11). Both factors could have an impact in a longer-term cost-effectiveness analysis and underline that future research should investigate the modifying effect of age.

At the end of the day, the choice of treatment needs to be individualized to the patient needs and preferences. Certain characteristics lead us to favor the LNG-IUS, such as need for contraception, wish to preserve fertility, risk of endometrial neoplasia or presence of concomitant gynecologic conditions such as adenomyosis. On the other hand, some women do not tolerate or refuse potential side effects of hormones. Let's keep in mind that both methods are effective, minimally invasive and represent substantial savings compared to a hysterectomy, but when both options are adequate for a patient, the LNG-IUS is less costly for society.