

FSRH CEU Statement: Response to Study

Intrauterine Contraception Use and Cervical Cancer Risk

14th January 2018

A systematic review and meta-analysis¹ published in *Obstetrics and Gynecology* reported that women who had used intrauterine contraception (IUC) were over one third less likely to experience invasive cervical cancer than women who had not used IUC. The study has received media attention and the FSRH CEU considered it important to put the findings into perspective.

About the study

- ▶ This study evaluated 16 observational studies with data on IUC use and incident cervical cancer, including a total of 4945 cancer cases and 7537 cancer-free controls.
- ▶ The included studies were conducted across diverse international settings from 1981-2006, before human papillomavirus (HPV) vaccination was available.

Key findings

- ▶ The odds ratio (OR) association between any use compared to never use of IUC and cervical cancer was 0.64 (95% CI, 0.53-0.77), suggesting that the risk of developing cervical cancer was 36% lower in women who had ever used IUC.
- ▶ This meta-analysis does not establish a causal association between use of IUC and reduced risk of cervical cancer.

What does this study add to what we already know?

- ▶ The findings of this study are consistent with a 2011 pooled analysis (10 case-control studies) which found ever use of IUC to be associated with decreased risk of cervical cancer (OR 0.55; 95% CI, 0.42-0.70).² The meta-analyses were well-conducted but have limitations, including the observational nature of included studies. Individual studies did not all record important factors such as smoking status, HIV status, number of partners, and cervical screening history, meaning that unmeasured confounders or biases could account for the observed association.³ Data are incomplete for IUC type (hormonal or copper), age at insertion and duration of use, and no information is given regarding the nature of any potential protective mechanism.

These data come from time periods and settings without HPV vaccination and with variable cervical screening and cervical cancer burden. Therefore, even if there is a protective effect, it is unknown whether this finding would be applicable in the UK setting where HPV vaccination and cervical screening are standard. Further evidence, and consideration of the mechanism by which IUC use could protect against cervical cancer, are needed before conclusions are drawn about this potential non-contraceptive benefit of IUC.

Implications for clinical practice

- ▶ This meta-analysis does not alter existing FSRH guidance. The FSRH guideline *Intrauterine Contraception* recommends that copper intrauterine (CU-IUD) use may be associated with a reduced risk of cervical cancer.⁴
- ▶ Available data do not support recommending IUC for the purpose of cervical cancer prevention.
- ▶ Clinicians should advise all women that HPV vaccination, condom use and regular cervical screening remain the most effective ways to reduce cervical cancer risk.

References

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2. Castellsagué X, Díaz M, Vaccarella S, *et al.* Intrauterine device use, cervical infection with human papillomavirus, and risk of cervical cancer: a pooled analysis of 26 epidemiological studies. *Lancet Oncology* 2011; 12(11):1023-1031.
3. Lopez-del Burgo C, Osorio A, De Irala J. Intrauterine device and cervical cancer: we need more evidence. *Lancet Oncology* 2011;12(12):1185-1186.
4. Faculty of Sexual & Reproductive Healthcare (FSRH). *Intrauterine Contraception*. 2015. <http://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception/>

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