

## **FSRH CEU Response to study: Analysis of reports of unintended pregnancies associated with the combined use of non-enzyme inducing antibiotics and hormonal contraceptives**

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The BMJ Evidence Based Medicine Journal has published a paper<sup>1</sup> suggesting that antibiotics may lessen the effectiveness of hormonal contraception. The authors used the 'Yellow Cards' system where clinicians and patients can report adverse drug side-effects to the UK's drug and medical devices regulator, the Medicines and Healthcare products Regulatory Agency (MHRA). Data between 1963 and July 2018 was analysed and researchers compared the number of unintended pregnancies reported in 74,623 Yellow Cards for antibiotics in general and in 32,872 for enzyme-inducing drugs with those reported in 65,578 other types of drugs in users of oral contraception.

There were 6 unintended pregnancies in the Yellow Card reports of other drugs, equivalent to 9/100,000 of the population; 46 in the antibiotic reports (62/100,000); and 39 in the enzyme inducing drug reports (119/100,000).

Compared with the other types of drug, unintended pregnancies were 7 times more common in Yellow Card reports of antibiotics and 13 times more common in reports of enzyme-inducing drugs, which included some antibiotics. Congenital birth defects were also reported 7 times more often in enzyme-inducing drug Yellow Cards.

The authors conclude that 'women taking hormonal contraceptives should be warned that antibiotics may impair their effectiveness. Extra precautions can be taken during a course of antibiotics'.

This new evidence is being discussed and a further statement will be released in the near future. Before there is a change to clinical guidance the limitations of this study need to be assessed. The most important of these is reporting bias. Clinicians and patients are more likely to report an unintended pregnancy to the MHRA as they believe that antibiotics interact with oral contraceptives.

After analysing all previously published studies the US Center for Disease Control and Prevention<sup>2</sup> and the Clinical Effectiveness Unit (CEU) of the Faculty of Sexual & Reproductive Healthcare<sup>3</sup> have stated that most broad-spectrum antibiotics do not reduce the contraceptive effectiveness of combined oral contraceptives, patches, or rings and extra precautions are not required when antibiotics are prescribed.

### **References**

1. JK Aronson, RE Ferner. Analysis of reports of unintended pregnancies associated with the combined use of non-enzymeinducing antibiotics and hormonal contraceptives. BMJ Evidence-Based Medicine Published Online First: 18 August 2020. Available online [here](#) (accessed 19/08/2020)
2. Centers for Disease Control and Prevention. The United States Medical Eligibility Criteria for Contraceptive Use (USMEC). 2016. Available online [here](#) (accessed 17/08/2020)
3. Faculty of Sexual & Reproductive Healthcare (FSRH). Drug Interactions with Hormonal Contraception. January 2017, last reviewed 2019). Available online [here](#) (accessed 17/08/2020)

*The Clinical Effectiveness Unit (CEU) was formed to support the Clinical Effectiveness Committee of the Faculty of Sexual and Reproductive Healthcare (FSRH), the largest UK professional membership organisation working at the heart of sexual and reproductive healthcare. The CEU promotes evidence based clinical practice and it is fully funded by the FSRH through membership fees. It is based in Edinburgh and it provides a member's enquiry service, evidence based guidance, new SRH product reviews and clinical audit/research. [Find out more here.](#)*