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Improving information on intrauterine contraception:

providing advice in primary care

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INTRODUCTION

More women choosing to use very effective contraceptive methods like intrauterine contraception (IUC) can lead to higher standards of sexual and reproductive health and wellbeing. Fear may inhibit some women in the UK from using IUC. Although information that can potentially address this problem is available,[1,2] in practice inaccurate information and consequently inadequate care are sometimes still offered to women. More accurate information and positive experiences could lead to more women choosing to use IUC and recommending it to others. This article offers suggestions for changes and improvements to some aspects of IUC information and care based on the available evidence.

IUC COUNSELLING

IUC is very effective, long acting, and the commonest reversible method of contraception used in the world. It is provided by the insertion of a flexible plastic device impregnated with either copper or a hormone into the woman's uterus. Copper IUC acts immediately, is the most effective form of emergency (postcoital) contraception, and is associated with a reduced risk of cervical cancer. Hormonal IUC users tend to experience less menstrual bleeding and amenorrhoea. Intrauterine devices (IUDs) impregnated with up to 52 mg of levonorgestrel (for example, Mirena® [levonorgestrel, Bayer Plc]) are recommended for heavy menstrual bleeding, as the progestogen component of hormone replacement therapy, and reduce the risk of endometrial cancer.[2]

IUC has the highest satisfaction and continuation rates of all long-acting reversible contraceptives irrespective of age, race, parity, education, socioeconomic status, and history of sexually transmitted infection.[3] This is similar for contraception use post-termination of pregnancy (TOP): compared with combined oral contraceptive users, copper IUD users were 70% less likely to return for another TOP in the subsequent 3 years.[4] Possible risks and side effects with IUC are discussed in later sections.

MODE OF IUC ACTION

Implantation as a mode of IUC action has not been proven for any IUDs that are currently available in the UK. No spermatozoa have ever been recovered from the site of fertilisation in users of copper IUDs containing 250 mm^2 of copper.[5,6] The greater the amount of copper on an IUD, the greater its gametotoxic effect and its inflammatory response extending beyond the uterine cavity of the female reproductive tract.[7] Spermatozoa migration through cervical mucus is suppressed and their functionality is inhibited in users of levonorgestrel-impregnated IUDs.[8] Prevention of implantation as a mode of IUC action is a belief originating from the 1960s that is being propagated today.[7] Many women are put off using IUC because of this inaccuracy, as it suggests IUC is an abortifacient, which may not be acceptable to them. Women should instead be informed that IUDs prevent fertilisation either by direct toxicity of the copper or the inhibitive effect of the hormone impregnated on the IUD.

IUC SIDE EFFECTS AND RISKS

The commonest side effects with IUC are pain and bleeding: up to 60% of IUC users discontinue in 5 years for this reason. IUC discontinuation is associated with heavy, prolonged, and/or painful menses, nulligravidity, nulliparity, malposition, and uterine incompatibility.[2] Heavier and/or more painful periods are commoner with copper IUC use, whereas hormonal IUC is associated with prolonged and unscheduled bleeding, especially in the first year of use.[2]

Many women interpret the risk of pelvic infection with IUC insertion to mean that IUC *causes* infection. Pelvic infection is only associated with the IUC insertion procedure and this risk is low, occurring in less than 1 in 100 IUC insertions. Pelvic infection

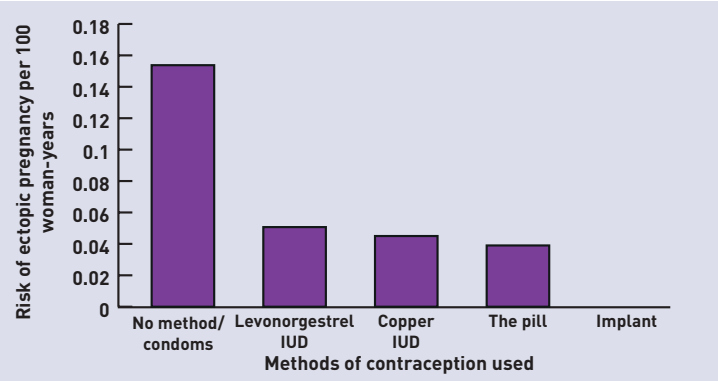

Figure 1. Ectopic pregnancy rates in the Contraceptive CHOICE project by contraceptive method. Data depicted were obtained from Williams S* et al *2014.[9] No ectopic pregnancy was reported with implant use.

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Competing interests

The author has declared no competing interests.

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should only be a concern in the first 20 days after IUC insertion, after which this risk returns to the level *before* IUC use.[2] Women at risk of sexually transmitted infections (STIs) can reduce their pelvic infection risk by screening for STIs prior to or at the time of IUC insertion, and can be reassured that pelvic infection treatment does not usually require removal of the IUD.

Women also tend to be told that their risk of an ectopic pregnancy is higher with IUC. IUC failure rates are 0–2 per 100 users over 5 years.[2] Of these pregnancies that result from IUC failure, ectopic pregnancies occur in about 10% of copper IUD users and one-third to one-half of hormonal IUD users.[2] Overall ectopic pregnancy risk is *lower* with IUC versus no contraception (Figure 1[9]).

Uterine perforation is the most serious but rarest risk with IUC. One to two perforations occur per 1000 IUC insertions, and it is sixfold more likely in women breastfeeding and up to 3 months postpartum.[2] Hence all other women should be advised that perforation risk is low in their circumstances. This could help reduce women's anxiety that having IUC may cause 'damage to their wombs'.

IUD CHOICE

It is good practice to stock IUDs of different sizes and inserter widths. Pain and bleeding are the commonest reasons for IUC discontinuation and these can be related to the dimensions of the device. A smaller-sized device should be suggested if the main problem with previous IUC use was pain.

A healthcare practitioner should discuss the types of IUDs available and the woman's circumstances and preferences. A joint decision can then be made on which IUD the woman will want inserted. An oral contraceptive user may prefer to have a copper IUD in the first instance. The healthcare practitioner may instead suggest a hormonal IUD on the basis of the woman's history of heavy painful periods prior to oral contraceptive use. A woman should be informed that if she is unhappy with an initially chosen IUD, there are alternative IUDs.

IUC INSERTION PAIN MANAGEMENT

Recipients of IUC are more likely to experience pain with their IUC insertion procedure if they are nulligravid, nulliparous, or previously delivered only by caesarean, have had two or fewer vaginal deliveries, or their last delivery is historic (usually more than 6 months).[2] Over 70% of nulliparous women experience moderate to severe pain during and/or just after their insertion procedure. Healthcare practitioners should consider a woman's circumstances in relation to this evidence and then advise accordingly. For example, a woman who has had two vaginal deliveries in the past and did not have any pain relief with her first IUC insertion 5 years ago may require pain relief this time, and local anaesthesia should be offered.

The nature and mechanism of pain and the modes of action required for medications to counteract pain with and just after IUC insertion have been studied. The evidence so far suggests that non-steroidal anti-inflammatory drugs are the most effective for pain associated with IUC insertion, and more than 1 hour is needed for their effect.

Experienced IUC providers recommend an oral stat dose of up to 800 mg of ibuprofen at least 1.5 hours before IUC insertion, optionally in combination with 1 g of paracetamol. This suggests why women still experience significant pain despite following the healthcare practitioner's advice of taking 400 mg of ibuprofen half an hour before their IUC insertion. Women should be informed that higher doses and more time are required for effective pain management. Pain relief, especially for the nulliparous, should be recommended for 3–7 days following IUC insertion. Some women, usually nulliparous, will need pain relief to be continued for up to 1 week.

CONCLUSION

Healthcare practitioners should offer accurate information about interventions they provide or recommend. Others may have already discussed IUC with the woman before her attendance: the partner or spouse, friend, work colleague, midwife, pharmacist, social worker, health visitor, colposcopist, radiologist, and, frequently, Google®. It is therefore important that practitioners can correctly confirm or refute information that the woman has already accessed, backed up by evidence or recommendations for practice.

Provenance

Freely submitted; externally peer reviewed.