

menstrual cycle, convey concepts more dynamically than could ever be displayed on paper.

Video consultations demonstrate communication aspects powerfully. The introductory emphasis on the law, the client perspective and young people places contraception and sexual health within its psychosocial context. Links to referenced sites are well chosen and accessible. The interactive self-assessment is challenging and – dare I say – fun, and I learned from some errors but I will not confess where!

I think e-SRH e-Learning is good preparation for the Practical Sessions of the FSRH Diploma,² and with regular updating it will remain a valuable educational resource for us all in the future. Congratulations to all the team involved with this project.

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Query about Faculty updated UKMEC

I would be grateful if the Faculty of Sexual and Reproductive Healthcare could explain why in the updated *UK Medical Eligibility Criteria for Contraceptive Use (UKMEC 2009)*¹ the Category 4 for body mass index (BMI) >40, has been removed? As a raised BMI is so closely associated with increased risk of venous thromboembolism, this does not seem logical. Without the Category 4 status, I am concerned that increasing numbers of patients with a BMI >35 and indeed a BMI >40, will start, or continue to take, the combined pill, without any robust guidance to support this as a dangerous practice.

I am, however, pleased to see the Category 3/4 for multiple risk factors for cardiovascular disease is now clearly stated. I would, however, prefer the definition for 'older age' to be stated. I would interpret this as being aged 35 years or over, but the additional comments at the end of the section imply the definition is aged 40 or above.

I fully appreciate that UKMEC is a guidance document and not a list of rules as such, but if these are too loosely presented then they will not serve their purpose in ensuring safe prescribing practice.

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Reply

In her letter,¹ Dr Lee raises a pertinent question regarding the new *UK Medical Eligibility Criteria for Contraceptive Use (UKMEC 2009)*² categories for body weight and combined hormonal contraception (CHC) use. The current Clinical Effectiveness Unit was not involved in updating UKMEC but we believe the body weight categories were made less restrictive to make them more consistent with the categories for other cardiovascular risk factors and CHC.

The rationale for these changes is partly explained in an article by Trussell *et al.*³ Obesity is generally perceived to be an important risk factor in CHC users because of the high relative risk of venous thromboembolism (VTE). Trussell argues that, in terms of absolute or attributable risk, other cardiovascular risk factors are more strongly associated with VTE and mortality than obesity. For instance, the absolute risk of VTE in CHC users aged 45–49 years (UKMEC 2) is 175 per 100 000, which is greater than a VTE risk of 105 per 100 000 associated with CHC use and body mass index (BMI) ≥35 (UKMEC 3). The risks in terms of deaths in CHC users are even lower, with an absolute risk of 3.3 deaths per 100 000 in smokers aged <35 years (UKMEC 2) and a risk of 2.4 per 100 000 in women with BMI ≥ 35 (UKMEC 3).

With regard to the UKMEC 2009 section on multiple risk factors for cardiovascular disease, the text is unchanged from UKMEC 2005. The additional comments do appear to imply that the UKMEC definition of 'older age' is aged 40 years or above. Risk factors such as age are a continuum and there is not necessarily an exact cut-off. As Dr Lee acknowledges, UKMEC is only a guidance document, and it would be entirely appropriate for clinicians to apply their own clinical judgement.

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Implanon® failure in patients on antiretroviral medication: the importance of disclosure

We would like to draw other practitioners' attention to a problem we have observed recently in our clinic, namely Implanon® failure in two women on antiretroviral (ARV) medication who failed to mention Implanon use to their HIV physicians. These women highlight the need for disclosure of HIV diagnosis to physicians offering contraceptive choices and Implanon use to the HIV physicians.

A 33-year-old woman, para 3, attended in May 2007, requesting termination of pregnancy. She had an Implanon since July 2004 and was amenorrhoeic until February 2007. She was commenced on Sustiva® (efavirenz 600 mg tab) and Truvada® (emtricitabine 200 mg and tenofovir disoproxil 245 mg) in January 2007 as her HIV viral load was rising. She was not asked and did not volunteer Implanon use. Concerns for the adverse effect of the ARVs on the fetus had prompted the termination request. After a normal dating ultrasound scan her decision to terminate became ambivalent. She became committed to the pregnancy after a normal 15-week scan and delivered a male baby weighing 3520 g at term.

A 35-year-old woman, para 1, conceived with an Implanon when commenced on efavirenz and lopinavir. She did not mention Implanon use to the HIV physician, and the contraceptive clinic had no record of her HIV status. She did not appreciate that Implanon was a drug that might interact with ARVs. She had amenorrhoea on the Implanon and did not realise she was pregnant until 19 weeks. After counselling she opted for a mid-trimester termination.

The concentration of contraceptive

hormones may change by concomitant drug use and vice versa. It is good practice to enquire about current and previous drug use (specifically liver enzyme-inducers) when offering hormonal contraceptives.¹ Women should be advised that some drugs might reduce hormonal contraceptive effectiveness. With the exception of the progesterone-only injectable or the levonorgestrel intrauterine system, the contraceptive efficacy of hormonal methods is reduced by liver enzyme inducers.¹

Some ARVs, such as protease inhibitors (amprenavir, atazanavir, nelfinavir, lopinavir, saquinavir, ritonavir) and non-nucleoside reverse transcriptase inhibitors (efavirenz, nevirapine), are metabolised by the CYP3A4 liver enzyme system and can affect liver enzymes.¹

Each Implanon contains 68 mg etonogestrel (ENG). The subdermal delivery method makes it 100% bioavailable. Serum ENG concentrations increase rapidly within 8 hours of insertion and peak after 4 days.² The release rate is 60–70 µg/day in weeks 5–6 post-insertion, and decreases to 35–45 µg/day at the end of the first year, to 30–40 µg/day at the end of the second year, and then falls to 25–30 µg/day at the end of the third year.^{2,3} These low concentrations are sufficient to inhibit ovulation for 3 years.³

The advice for using the progesterone-only implant for women on long-term liver enzyme-inducing drugs is to continue using it together with additional contraceptive protection (such as condoms) and for 4 weeks after the drugs are stopped.¹

These cases highlight the unforeseen consequences of non-disclosure of HIV for both patients and physicians. One of the dilemmas facing physicians is whether to disclose the HIV diagnosis to general practitioners (GPs). Arguments have been advanced for specialists breaching confidentiality and notifying the GP against patients' wishes in the interest of normal medical practice, the patients' and health personnel best interests, and the interests of society in general. Gillon⁴ examines each argument and concludes that none is sufficient to justify violating physician patient confidentiality in most cases.

Early contraceptive failure of Implanon in a woman on antiretroviral medication has been described.⁵ The patient in the case report had an ectopic pregnancy.

The great majority of HIV-positive women are of reproductive age. Contraceptive options must take into account the risk of an unintended pregnancy, vertical transmission, and horizontal transmission for a non-infected partner. To achieve all these goals, a combined contraceptive (barrier method plus another method) is the 'gold standard'. Some practitioners will argue that the 'Double DUTCH' advice should be given to all patients and not just HIV-positive women.

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Contraceptive failure and the progestogen-only pill

The case report by Chandler and Nash¹ in this issue of the Journal is interesting and highlights the need for trials of hormonal contraceptive use to include obese women.

The authors acknowledge that despite an apparent association between contraceptive failure and higher body weight in studies of a Norplant® prototype and a levonorgestrel-releasing vaginal ring, there is insufficient evidence to demonstrate reduced efficacy in heavier women using the progestogen-only pill (POP). Current guidance from the Faculty of Sexual and Reproductive Healthcare (FSRH)² advises one progestogen-only pill (POP) per day irrespective of body weight. This recommendation is based on the evidence available at the time of publication and the consensus of the guideline development group.

The recent review of obesity and oral contraceptive pill (OCP) failure by Trussell *et al.*³ lends further support to FSRH guidance. The authors conclude that they “found no convincing evidence that very heavy or obese women have a higher risk of oral contraceptive pill [combined and progestogen-only] failure during perfect use than thinner women, even with the lowest doses formulations”. Trussell and colleagues mention the difficulties of reliably measuring adherence and they speculate that OCs may be less forgiving of imperfect use among heavier women.

Given that long-acting reversible methods of contraception (LARC) are known to be highly effective and less dependent on adherence than OCs, LARC methods should be offered to all women, particularly following OCP failure.

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Lost IUD penetrating bladder wall

The incidence of uterine perforation following intrauterine device (IUD) insertion is reported to be nearly 0.5–1/1000 insertions.¹ Misplaced IUDs can be diagnosed simply with speculum examination. Missing threads is the usual sign and may be due to unrecognised expulsion, enlarged uterus due to pregnancy, the IUD threads becoming detached or, most importantly, perforation.

A 48-year-old woman was admitted to our clinic with a suspected misplaced IUD. She had her IUD inserted 15 years ago in a health cabin by a midwife. She started having pelvic pain following insertion; however, this was attributed to the insertion procedure. Four months after the device was introduced the pain diminished and the woman wondered whether in fact the IUD had dropped out. During a routine examination, a clinician interpreted this decreased pelvic pain as a consequence of IUD expulsion. The woman had never experienced any urinary or intestinal

symptoms. Of nine vaginal deliveries (gravid 12, miscarriage 3), the last three were planned after supposed IUD loss without any complications. Recently the woman had experienced unacceptable abdominal and pelvic pain and was referred with a suspected lost IUD.

Pelvic examination revealed normal findings except for missing IUD threads. Pelvic ultrasonography revealed a hyperechogenic, rod-shaped foreign body, possibly the IUD, extending through the dome of the bladder wall. Diagnostic cystoscopy revealed IUD penetration of the bladder. Extraction with forceps only allowed part of the IUD to be pulled. Although sufficient force was exerted, the knob at the base of the device could not be pulled into the bladder. In order not to damage the bladder mucosa, the IUD threads were broken and pulled during cystoscopy and the handle of the device was extracted during laparoscopy (Figure 1). Postoperatively a catheter was held through the bladder for 1 week. The recovery period was uneventful.

Uterine perforation is a potentially hazardous yet uncommon complication of IUD insertion and can go unnoticed due to anticipation of pain during the insertion procedure. Diagnosis is relatively easy if suspicion is awakened. Pelvic ultrasonography is the first step towards establishing the location of a misplaced IUD. Computed tomography, magnetic resonance imaging, X-ray and fluoroscopy are also useful tools for diagnosis; however, in most cases the diagnosis can be made using only simple pelvic ultrasonography.

Zakin *et al.* divided perforation into two groups: complete and partial. They proposed that once partial perforation had occurred, the IUD may transmigrate to the adjacent structures easily.² Our patient also had multiple pregnancies after IUD insertion. It seems that subsequent pregnancies may have caused the IUD migration. The patient had three deliveries following IUD insertion.

Bleeding problems and menorrhagia are possible outcomes following IUD insertion; however, these symptoms should alert the clinician to other possible complications. Accompanying pelvic pain is also another sign of possible problems. Our patient had pelvic pain for 4 months following IUD insertion and did not attend for a check-up. Because she attributed this pelvic pain to the insertion procedure, the opportunity for an early diagnosis was lost.

Conversely, the patient sought medical help in order to discover whether the device had dropped out and this was associated with decreased pelvic pain following this painful period. Unfortunately, medical staff concurred with the patient's stated belief that the IUD had dropped out, and so did not perform further investigations to confirm or refute this belief. Interestingly the patient experienced no problems afterwards, until the diagnosis of a misplaced IUD nearly 15 years later.

We believe that this is the first case of bladder perforation reported in the scientific literature. It is a matter of debate in this case as to whether the uterus was iatrogenically perforated or whether the IUD moved through the uterine wall during pregnancy. This case also demonstrates an uncommon localisation of an IUD and the close relationship between pelvic pain and IUD misplacement. This case also emphasises the need for regular check-ups following IUD insertion and the need to be suspicious of possible locations other than the uterus. Most importantly, an accurate diagnosis may facilitate the use of endoscopic techniques and result in minimally invasive treatment.

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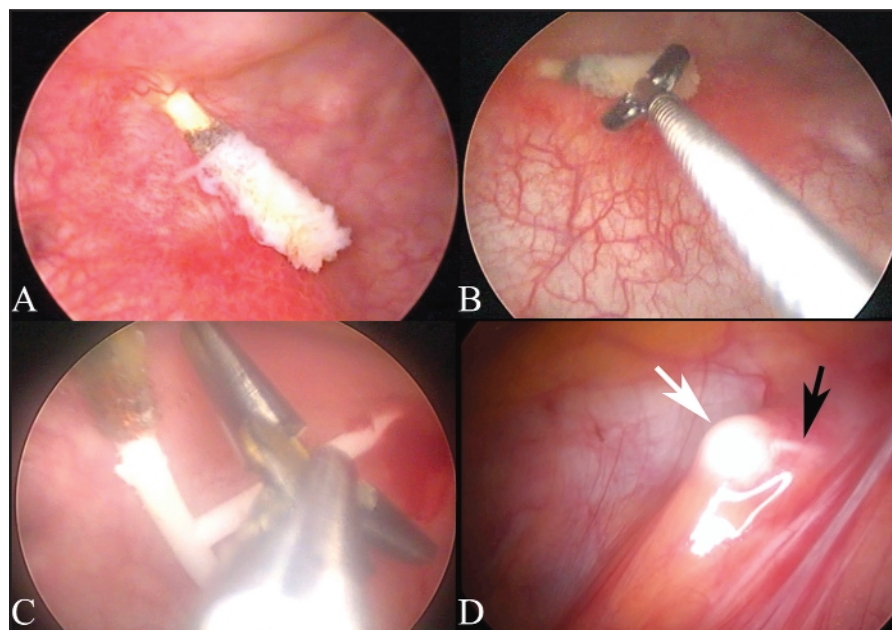


Figure 1 Cystoscopy and laparoscopy images. (A) Only one thread of the T-copper intrauterine device was found to be penetrating the bladder wall. (B, C) Extraction with forceps resulted in the successful traction of the device except for the base and the threads. (D) Using a laparoscopic approach it was possible to extract the remainder of the device after minimal dissection