severe subserosal inflammation without mucosal inflammation leading to the conclusion that the source was elsewhere within the abdomen or pelvis. It is speculative that this episode 4 years earlier might also have resulted from the long-term presence of her IUD. Pelvic actinomycosis normally begins as subacute or chronic disease, months or years before presentation.[1]

The copper IUD devices marketed in the UK have licensed durations of 5, 8 or 10 years. In women aged under 40 years it is recommended they are changed according to licence. If inserted after the age of 40 years they may remain *in situ* until 1 year after the menopause if the last period (LMP) is over the age of 50 years, or 2 years after if the LMP is under the age of 50 years.[2] These recommendations are based on consensus opinion and acknowledge that insertion-related risks are minimised by reducing the frequency of IUD changes. National guidance places strong emphasis on when removal is safe from a contraceptive point of view.[2] There is no clear mention of the need for removal once the contraceptive action is no longer required, or of the risks of failing to do so. The frequency with which ALOs are reported in routine smears rises in a linear fashion with the duration of use of devices.[3] ALOs are more common with certain types of IUD (e.g. Multiload®) and uncommon with the levonorgestrel intrauterine system.[4] Pelvic actinomycosis is an uncommon and poorly understood condition, but has been recognised to complicate IUD use since the first report in 1973. However, *Actinomycetes* also normally reside in the female genital tract.[2]

We cannot provide any denominator data for the number of women in the catchment population with a long-term IUD, but the occurrence of a cluster of cases of serious intraperitoneal sepsis in a single hospital in a relatively short space of time is unusual. It is likely that single cases are not reported, or the association with the copper IUD overlooked, by surgeons and not fed back to those providing contraception services. When a pelvic mass or abscess, fever and other signs of infection are found in patients with a long-term IUD, pelvic actinomycosis should be considered. Awareness of this could usefully be increased among general surgeons and gynaecologists. We recommend that current guidelines be revised to include some emphasis on the importance of timely removal of an IUD, once its contraceptive properties are no longer required. Women should be made aware that long-term retention may rarely result in serious sepsis associated with pelvic abscesses and/or actinomycosis. There should be more emphasis on timely removal of an IUD early in the menopause. This is not included in existing professional guidance[2] and patient information leaflets.[5]

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Reply

With regard to the four cases of serious pelvic infection described by Pillai *et al*.,[1] the Clinical Effectiveness Unit (CEU) acknowledges that long-term retention of an intrauterine device (IUD) is associated with infection and that the risk of actinomycotic pelvic abscess increases with duration of use. For this reason, Faculty of Sexual and Reproductive Healthcare (FSRH) Guidance recommends that an IUD is removed at the end of its licensed duration or when no longer required.[2] In women having an IUD inserted between the age of 40 years and the menopause, FSRH Guidance recommends that, based on expert opinion, the risk of infection in the 20 days following replacement of an IUD outweighs the risk of extending use until the menopause. In this situation IUD use can be continued until 1 year after the last menstrual period (LMP), or 2 years after the menopause if the LMP occurs under the age of 50 years.[2]

Interestingly, since being asked to respond on behalf of the CEU, a 70-year-old woman presented to my gynaecology clinic with vaginal discharge and an IUD that had been *in situ* for 30 years. The threads of the IUD were visible and the patient had attended her GP practice after the menopause for cervical smear tests. She claimed that she had asked the practice nurse about removal of the IUD but had been reassured that it was not causing any harm.

It is not clear how many IUD users retain their IUD after the menopause and what proportion of these women develops complications. However, the cases described by Pillai *et al*. highlight the potential for life-threatening infection and a lack of awareness of the need for IUD removal among some IUD users and health professionals. Current FSRH Guidance does not emphasise the need to advise patients about the importance of IUD removal when no longer required and about the potential risks of long-term IUD retention. We are grateful to Dr Pillai and colleagues for drawing this to our attention and we shall ensure that a recommendation to this effect is included in future updates of the Guidance on 'Contraception for Women Aged Over 40 Years' and 'Intrauterine Contraception'.

Case reports are a useful source of evidence where no other evidence exists. We would encourage others to report complications that are particularly rare, serious or associated with prolonged contraceptive use.

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IUS producing a TAC

I recently saw a very unusual patient in whom an intrauterine system (IUS) appeared to produce a trigeminal autonomic cephalgia (TAC).

The patient, a 39-year-old woman, was fortunate never to have had a headache until the events reported here. In early 2007, the patient started to complain of severe menorrhagia. Her periods were heavy and lasted 14 days, and necessitated the use of 15–20 sanitary pads a day. Tranexamic acid 1000 mg qds was tried initially for 8 weeks but the heavy bleeding continued. Next a therapeutic trial of norethisterone 5 mg tds was tried for many months resulting in a mild improvement. In desperation, the patient was referred to a gynaecologist who felt that the next step was to insert a levonorgestrel-releasing IUS. This was duly done. Within 6 hours of inserting the IUS the attacks started. All the patient's attacks (averaging 5–7 attacks/day) were similar. All were left sided and lasted 15–30 minutes. An attack started with pain to the side of the left eye that the patient described as unbearable, like the worst toothache ever. Associated with the pain was profuse tearing mainly from the left eye, although the pain was so bad the patient also cried with her right eye. Her palpabral fissure narrowed, her nose ran and her eye became pink. Her face felt strange and numb though painful. Touching her face, or brushing her hair or her teeth, did not trigger an attack. The attacks continued daily for 4 weeks until the patient came to see me.

As she entered the room, an attack started. Following the attack I removed the patient's IUS very easily and gave her a zolmitriptan nasal spray in case she had further attacks. I arranged to see her 7 days later, at which time she appeared to be a completely different person. She had suffered one further attack some 6 hours after the IUS was removed and so had used the nasal spray. After this her attacks had totally stopped. At that clinic visit, in order to help her menorrhagia, which still raged, I started the patient on norethisterone again. Eighteen months later she is still totally free of attacks, and although her bleeding is still very heavy, she is not prepared to even consider allowing me to reinsert an intrauterine device/system, with or without hormones. She says the pain was the worst pain she could ever imagine and as a result she would never, even for the purposes of research, have an IUS inserted again.

This woman appeared to develop a TAC, which approximated most closely to a cluster headache, though some attacks lasted only 15 minutes. It might be argued that it was not the IUS itself, but the hormone present in the IUS, which triggered the attacks, however this seems unlikely. The patient had already had very large doses of progestogen prior to IUS insertion with no ill effects and has also had large doses following IUS removal. The progesterone dose in the IUS is effective locally and is unlikely to have reached a high level after only 6 hours. Conversely, if the problem were the hormone in the IUS, its removal would be unlikely to cause the hormone level to decrease significantly in 6 hours.

In summary, on the face of it this would appear to be a simple case of a woman having an IUS inserted and developing a TAC, which was rapidly cured by removing the device. I would be delighted to discover if any of the Journal's readers have observed a similar case.

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Informed consent for IUD fitting

Perforation of the uterus is a rare complication of intrauterine device (IUD) fitting. It is quoted as occurring in up to 2 in 1000 IUD fittings.[1] Risk factors for perforation include previous caesarean section[2] and postpartum insertion up to 6 months after delivery.[3]

Perforation may occur during the sounding of the uterus or the device itself may perforate the uterus. This can lead to the device being free in