Comment on 'Incomplete IUS removal'

We would like to respond to the letter to the editor¹ from Dr Agarwal that appeared in the July 2014 issue of this Journal.

Dr Agarwal describes a case where an intrauterine system (IUS) was removed from a 51-year-old patient after it had been *in situ* for 8 years. Upon removal, it was thought that the transverse arms of the IUS were missing, and the patient subsequently underwent ultrasound and hysteroscopy examination, the latter failing to locate the IUS arms. On ultrasound, it was thought that a linear echogenicity at the top of the uterine cavity represented the IUS arms and an abdominal X-ray was proposed, however the patient chose not to pursue the matter further.

Based on the case description and the ultrasound image, it appears very likely to us that the whole IUS had been removed initially and that the diagnostic measures taken thereafter were unnecessary. A scenario in which the hormone cylinder has slid over the horizontal arms, pinning them together, is likely in the case described by Dr Agarwal. This phenomenon has been described previously in this Journal by Torbé *et al.*² to which Pirjola and Rybowski³ responded on Bayer's

behalf. Individual cases have also been reported directly to Bayer.

To avoid unnecessary diagnostic procedures, and to remind clinicians about this phenomenon, we wish to advise Journal readers of the following points:

- After removal of the Mirena® IUS, the system should be checked to confirm it is intact. During difficult removals, occasional cases have been reported of the hormone cylinder sliding over the horizontal arms and concealing them inside the cylinder. This situation does not require further intervention once the integrity of the IUS has been ascertained. The knobs of the horizontal arms usually prevent complete detachment of the cylinder from the T-body.
- ▶ Mirena is licensed for a maximum period of use of 5 years (in the UK, 4 years for endometrial protection). If used for a longer period, the hormone cylinder may become progressively looser as levonorgestrel continues to be released, and sliding of the hormone cylinder may become more frequent. Consequently we would ask all clinicians to ensure that their patients comply with Mirena's licensed duration of use and do not exceed it.
- ▶ If in doubt, following removal the IUS can be sent for assessment to a local Bayer quality assurance unit. The whole T-body of the Mirena IUS is radio-opaque and can be visualised by X-ray. An adverse drug reaction report should be completed and sent to Bayer in cases where IUS removal is associated with any adverse effects.

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Competing interests All the authors are employees of Bayer, the pharmaceutical

company that manufactures Mirena $^{\tiny\textcircled{\tiny{\$}}}$ and Jaydess $^{\tiny\textcircled{\tiny{\$}}}$ intrauterine systems.



J Fam Plann Reprod Health Care 2014;**40**:309–310. doi:10.1136/jfprhc-2014-101065

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- 3 Pirjola J, Rybowski S. Reply [to Torbé et al. letter]. J Fam Plann Reprod Health Care 2009;35:131.