RADIOLOGY DIRECTORATE

Imaging for Missing or Malpositioned Intra Uterine Contraception (IUCD)

Approved by	DATE
Radiology Directorate Governance Meeting	10th January 2024
Key amendments	
Reviewed & updated to current practice	10th January 2024
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Introduction

This policy describes the action to be taken when a missing IUCD has not been identified as lying within the uterus on ultrasound / CT or MRI examinations or is mal-positioned.

The policy determines the next steps to be taken to ensure appropriate additional imaging is requested and performed to locate the IUCD, or to confirm expulsion.

IUCD threads occasionally get lost. This may occur in 1.4-18% of cases. There are four main reasons why this may occur:

- An unrecognised spontaneous expulsion has occurred.
- The thread has coiled up within the endo-cervix or uterus
- The IUCD has perforated the uterine wall and migrated through the abdominal cavity
- Because of the patient becoming pregnant (this should be excluded by the referring clinician as a potential cause of a mal-positioned or expulsed IUCD).

Details of Protocol

Patients are usually referred for a trans-vaginal ultrasound (TVUS) examination to locate if the IUCD is correctly located within the uterus. This will need to demonstrate if the IUCD is within the endometrial cavity (including the correct distance from the fundus), myometrium or partly extra-uterine. ALL scans should be booked within normal working hours Mon- Fri 9-5pm.

Expelled or perforated IUCD

Expulsion of an IUCD occurs in approximately 1 in 20 cases and is most common in the first year of use, particularly within the first 3 months. The rate is also higher when inserted immediately post-partum, in adolescents, after late abortions (first and third trimester), those with fibroids, uterine cavity distortion, those with menstrual cups or those that have had a previous expulsion. If no IUCD can be demonstrated by ultrasound, the patient should be advised to use an alternative method of contraception. Expulsion should not be automatically assumed if there is an absence of threads.

The rate of uterine perforation with an IUCD is very low, with an overall risk of perforation in the general population of 1-2 in 1000. The symptoms of a perforation may include lower abdominal pain, non-visible threads or changes in bleeding. If perforation is suspected, exclusion of pregnancy should be confirmed and an US performed to assess position. In this case, the patient may also need to have a plain AXR and/or CT scanning as indicated below to determine the exact position of the IUCD and if any complications have occurred.

If no IUCD can be demonstrated by ultrasound, then consideration needs to be given to the device having perforated through the uterus with potential migration into the abdominal or pelvic cavity or whether there has been expulsion of the device. A plain abdominal x-ray should be performed on the same day to confirm whether the device is located elsewhere within the abdomen or pelvis or whether the device has been expelled. If the patient is identified as being pregnant during the scan – no abdominal x-ray should be performed. HCPC / NMC registered sonographers can request the abdominal x-ray (AXR) within the current IRMER policies in use within the Trust.

The AXR report should marked as 'S' significant and referrer advised to arrange URGENT referral to Emergency Gynae Assessment Unit at WRH. If the AXR confirms that there is still an IUCD within the abdomen or pelvis, a CT scan may be required to provide further information as to the exact location of the migrated IUCD, to assess if there is evidence of bowel perforation or visceral damage. In cases where the patient is *symptomatic*, the AXR should be reported immediately by the duty radiologist or reporting radiographer to facilitate prompt clinical review at the Emergency Gynaecology Assessment Unit (EGAU). If the patient is *asymptomatic*, then the x-ray should be assigned to 'urgent reporting' and the patient can be sent home. The reporting radiologist / radiographer should inform the referrer via a 'S' code on the report if there is indication of an extra-uterine location and recommend referral to the on-call gynaecology team and EGAU. The decision to investigate further, remove or replace a device will be made by the clinical team.

An extra-uterine IUCD is likely to need operative intervention and therefore patients with an extra-uterine IUCD will most likely need a post-contrast CT scan of the abdomen and pelvis. The referrer or on-call gynaecology team is responsible for requesting the CT scan as indicated on the flow chart on page 3 and the urgency will be indicated by the reviewing clinician. The CT should be done as an

urgent OP study (not out-of-hours or at the weekend) unless the patient has been admitted in which case, the study will be performed as an in-patient at the request of the admitting team as the patient may require urgent laparoscopic or hysteroscopic removal. OP scans can be performed within 48-72 hours and should be highlighted to the reporting allocation team to allow these studies to be reported within 24 hours of the scan to enable timely planning of surgical removal. All IP CT scans should be reported on the same day. All OP reports should be marked as 'S' significant and the referrer advised to arrange an URGENT referral to Emergency Gynae Assessment Unit at WRH following the CT scan report.

Mal-positioned IUCD

A mal-positioned IUCD may lead to lack of effectiveness of the contraception and incorrect placement will be associated with a higher risk of contraceptive failure. Studies suggest that there is mal-positioning of IUCD's in 7-19% of females.

A mal-positioned coil can be due to:-

1. **Malrotation** – the IUCD may be inverted (upside down), transverse or partially rotated on either the horizontal or vertical axis.

2. **Displacement**: downward (non-fundal-with the uterine cavity but sitting lower than expected), lateral (not central in the cavity, arms may not be deployed/only partially deployed/embedded/in the fallopian tube), cervical (stem partially or fully within the cervix).

3. **Embedded** – arm and /or stem partially or fully within the myometrium.

4. **Incorrectly deployed** – one or both of the arms are not fully extended.

In the case of a misplaced intrauterine (e.g. displaced or not adequately positioned - including more than 2cm from the fundus) or expelled IUCD, the woman should be advised to use an alternative method of contraception and can be sent home if asymptomatic.

The decision to remove and/or replace the misplaced/lost intrauterine coil and the method of removal is made by the referring GP or gynaecologist depending on location of the coil and can usually be done on a non-urgent basis (within 7 days).

The report should be marked as U (urgent) or S (significantly unexpected finding) and include that an outpatient referral to Gynaecology should be considered if there are concerns regarding removal of the device.

This is the most up to date version and should be used until a revised document is in place: 7th February 2025.

See the flow-chart in Appendix A for more details.

References

Faculty of Sexual and Reproductive Healthcare Clinical Guidance – Intrauterine Contraception, Clinical Effectiveness Unit March 2023 (amended July 2023)

Jefferies A, Boog K. Intrauterine devices: a summary of new guidance - *BMJ Sexual & Reproductive Health* 2023;49:148-150.

APPENDIX A