

Non-hormonal Intrauterine Device (Copper)

What's New

During service restrictions due to Covid-19 banded copper IUDs such as T-Safe are licenced for 10 years but are likely to be effective for contraception for up to 12 years. For more details please see

Faculty Guidance: <https://www.fsrh.org/documents/advice-for-women-seeking-contraception-abortion-andother/>

Introduction

All intrauterine devices (IUDs) (except gynefix) available on the UK market consist of copper (Cu) wire or sleeves around an inert core of plastic or polypropylene and are radiopaque

The primary mode of action is believed to be by inhibition of fertilisation due to direct toxicity on sperm and oocytes.

- An inflammatory reaction within the endometrium may have an anti-implantation effect should fertilisation occur.
- Alterations in the copper content of cervical mucus is seen which may inhibit sperm penetration.

Indications for IUD Use

- This method is suitable for any women, of child-bearing age, who is not pregnant and wishes to minimise the possibility of pregnancy and who has no contra-indications to its use.
- Women requiring emergency contraception (see Emergency Contraception Protocol).

Eligibility criteria for IUD Use

Please see link: <https://www.fsrh.org/standards-and-guidance/documents/ukmec-2016-summary-sheets/>

Efficacy and choice of device

Failure rate is low with cumulative pregnancy rates 0.1-1% after 1 year of use (Cu >300mm²). Banded devices are those with additional bands of copper on the horizontal arms and these give the highest efficacy and in general offer the longest duration of action, which minimises the established risks associated with reinsertion.

For example the banded TT 380 Slimline and T-Safe 380A Quickload each last 10 years and these are devices of first choice. However for individual clients width of insertion tube and length of device may also have to be considered. Women should be given information on the device inserted and its licensed duration to avoid unnecessary early removal. This information should also be documented in the case notes.

Device	Cu Surface Area (mm ²)	Licensed duration of use (years)	Recommended utero-cervical length (cm)	Diameter of insertion tube (mm)	Cost
<u>Banded</u>					
Copper T 380 A[®]	380	10	6.5-9.0	4.75	£8.95
TT380 Slimline[®]	380	10	6.5-9.0	4.75	£12.46
T-Safe QL[®]	380	10	6.5-9.0	4.75	£10.52
<u>Stem Only</u>					
Nova PLUS T380[®]	380	5	6.5-9.0	3.60	£10.95
Nova-T 380[®]	380	5	6.5-9.0	3.60	£15.20
UT 380[®]	380	5	6.5-9.0	3.60	£11.22
UT 380 short[®]	380	5	≥5	3.60	£11.22

Benefits

- **Non-hormonal method**
- **Use of Cu-IUD may be associated with a reduced risk of endometrial and cervical cancer.**
- **Use as emergency contraception.**

Side Effects/Risks

- An increase in the risk of pelvic infection occurs within the 20 days following IUD insertion but the risk is the same as the non-IUD using population thereafter.
- Displacement or expulsion is the commonest cause of IUD failure. The risk of this happening is around 1 in 20 and is most common in the first year of use, particularly within three months of insertion. There is a small increased risk of expulsion in the nulliparous.
- The risk of uterine or cervical perforation associated with an IUD is up to 2 per 1000 insertions and is approximately six-fold higher in breast-feeding women.
- The overall risk of ectopic pregnancy is reduced with IUD use compared to using no contraception.
The annual ectopic pregnancy rate for IUD is 0.02 per 100 women years, compared to 0.3 to 0.5 per 100 women years for those not using contraception. Similar rates for ectopic pregnancy are reported for LNG IUS and IUD. Alternative methods of contraception, which inhibit ovulation, will however reduce the risk of ectopic pregnancy to a greater degree.
- If a pregnancy does occur with an intrauterine method in situ, the risk of an ectopic pregnancy occurring is increased and in some studies half of the pregnancies that occurred were ectopic.
- Women should be informed about symptoms of ectopic pregnancy and the possibility of ectopic pregnancy should be considered in women with an intrauterine method who present with abdominal pain especially in connection with missed periods or if an amenorrhoeic woman starts bleeding. If a pregnancy test is positive an ultrasound scan is urgently required to locate the pregnancy.
- Altered menstrual bleeding patterns (including spotting, light bleeding, heavy or longer menstrual periods) are common in the first 3-6 months and persist in a minority of women. Unacceptable bleeding is one of the most common reasons for requesting IUD removal.

Discontinuation rates are similar for both framed and frameless devices. Women should be advised to seek medical advice, to exclude infection and gynaecological pathology if menstrual abnormalities persist beyond the initial 6 months of use.

- Dysmenorrhoea is a common reason for requesting IUD removal.
- Allergy to copper.
- Cu-IUD users with recurrent bacterial vaginosis (BV) or vulvo-vaginal candida (VVC) may wish to consider an alternative method of contraception.

Assessment Of Client Suitability

- Accurate information is the key to user acceptability.
- Clinical history taking and examination allow an assessment of medical eligibility for IUD use. In this context the history should include: medication and allergy history, medical history relevant to contraception, reproductive history including contraception, parity, cytology history and exclusion of pregnancy and pregnancy risk, sensitive routine enquiry into gender based violence and lifetime sexual history
- With this information clinicians can advise on the appropriate contraceptive options taking account of both medical and social factors.
- FSRH CEC has produced guidance on IUC insertion for women on antiplatelet's anticoagulation. See www.fsrh.org/news/new-guidance-on-management-of-anticoagulants-or-antiplatelet.
- Women considering an IUD should be counselled regarding other contraceptive options including the two alternative levonorgestrel releasing intrauterine systems (IUS).
- Counselling should include a discussion about discomfort during and after IUD insertion and possible side effects and risks. Use the counselling proforma included in appendix. Once we have done that we can tick the box on NASH which says "counselled as per pro forma".
- STI risk assessment should be performed for all women considering an IUD. A NAAT test for *Chlamydia trachomatis* and *Neisseria gonorrhoea* should be undertaken in women at higher risk of STIs (age < 25 years or if they are 25 years or older and they have a new sexual partner or more than one sexual partner in last year, or if their regular partner has other sexual partners). Testing for *Chlamydia trachomatis* and *Neisseria gonorrhoea* should also be done in women who request it.
- Women who are at higher risk of STIs should be advised to use condoms in addition to the IUD.
- Client should be given written information on the method.

Documentation

- The patient record should be completed or updated as required.
- Name of chaperone should be recorded.
- Details of the insertion procedure including the name, batch number and expiry date of the IUD inserted should be recorded.
- Details of local anaesthetic used, if any including batch number and expiry date should be recorded.
- Written method information given to patient including name of device, expected date of removal, change or review and contact number in case of problems. It is desirable to record the date of removal, change or review in the patient record.
- A standard letter will automatically be generated by Sandyford IT department and sent to the client's GP informing them of the procedure, provided GP permission is recorded on NaSH.

The Timing of Insertion of an IUD as a long-term contraception

Circumstances when an IUD can be inserted	
In all circumstances	Any time in the menstrual cycle if is reasonably certain the woman is not pregnant or at risk of pregnancy (unless qualifies for use as emergency contraception* (EC)). It is effective immediately.
Post partum (including post Caesarean section and breastfeeding)	0 to <48 hours from delivery or any time ≥ 4 weeks postpartum, and it is reasonably certain the women is not pregnant or at risk of pregnancy (unless qualifies for use as EC)*. It is effective immediately.
Following abortion	Post surgical abortion: IUD should ideally be inserted at the end of the procedure for immediate contraceptive effect. Post medical abortion: IUD can be fitted any time after completion of the second part of the abortion (i.e. passage of products of conception confirmed by clinical assessment and/or local protocols). It is effective immediately.
Following administration of emergency hormonal contraception	*Within the first 5 days (120hours) following first UPSI in a cycle or within 5 days from the earliest estimated date of ovulation. Outside the above criteria, IUDs should NOT be inserted until pregnancy can be excluded by a pregnancy test at least 3 weeks after UPSI.
Switching from another method of contraception	An IUD can be inserted at any time if another method of contraception has been used consistently and correctly. Insert at any time if it is reasonably certain that the woman is not pregnant. There is no need to wait for the next period or withdrawal bleed.
<p>A provider can be reasonably certain a woman is not pregnant if she has no symptoms or signs of pregnancy and meets any of the following criteria:</p> <ul style="list-style-type: none"> • Has not had intercourse since last normal menses • Has been correctly and consistent using a reliable method of contraception • Is within the first 5 days after normal menses • Is within the first 5 days post-abortion or miscarriage • Is fully or nearly fully breast feeding, amenorrhoeic, and less than 6 months postpartum • She is within 21 weeks post partum for non lactating women 	

Insertion & Removal Techniques

- Clinicians who insert IUDs should be appropriately trained, maintain competence and attend regular updates in dealing with emergencies in accordance with Faculty and/or RCN guidelines.
- Informed verbal consent should be given by women prior to insertion and this should be recorded on NaSH.
- STI risk assessment should have been done when assessing client suitability and a sexual health screen offered.
- Women with symptomatic pelvic infection should be tested, treated and insertion delayed until symptoms resolve. A bridging contraceptive method should be offered if necessary.
- Women diagnosed with an STI or PID should be advised to abstain from intercourse until they and any current sexual partner(s) have finished treatment or for one week after treatment with single dose azithromycin.

- In asymptomatic women attending for insertion of an IUD there is no need to wait for STI screening results or to provide antibiotic prophylaxis providing the woman can be contacted and treated promptly in the event of a positive result.
- Asymptomatic chlamydia infection should preferably be treated before insertion. In certain circumstances it may be acceptable to treat at the time of insertion.
- Screening for asymptomatic chlamydia/gonorrhoea should be considered when inserting an emergency post coital IUD. There is no indication to screen for other lower genital tract organisms in asymptomatic women considering IUC. If bacterial vaginosis or candidal infection is diagnosed or suspected the infection should be treated and the method inserted without delay. There is no reason to delay insertion.
- Antibiotic prophylaxis against infective endocarditis is no longer recommended to women including those with previous endocarditis or prosthetic heart valves undergoing procedures in the genitourinary tract. Any episodes of infection in people at risk of infective endocarditis should, in liaison with other relevant specialists be investigated and treated promptly to reduce the risk of endocarditis developing. The following conditions place patients at risk:
 - acquired valvular heart disease with stenosis or regurgitation
 - valve replacement
 - some forms of structural congenital heart disease (see NICE Clinical Guidance 64 for more details)
 - previous infective endocarditis
 - hypertrophic cardiomyopathy
- An appropriately trained assistant should be present during IUD insertion to help in the event of an emergency.
- Emergency equipment must be available in all settings where IUDs are inserted and local protocols must be in place for patients requiring further medical input.
- Pulse rate and blood pressure should be assessed and documented when clinically appropriate.
- A bimanual pelvic examination should be performed before inserting an IUD.
- Local anaesthetic techniques (lignocaine gel or injection of local anaesthetic to the cervix) may be used and should ideally be available and offered to all women.
- Local anaesthetic block administered by cervical injection is not routinely required for IUD insertion but should be offered when cervical dilation is required or difficult IUD insertion or removal is anticipated / experienced.
- Women who have epilepsy, and women who are likely to require local anaesthetic or who have had a previous failed insertion at another clinic should be referred to a clinic with more experienced staff specialising in difficult IUD insertions.
- For women with cardiac disease the decision to use IUD should involve a cardiologist. The IUD should be fitted in a hospital setting if a vasovagal reaction presents a particularly high risk, for example, women with single ventricle circulation, Eisenmenger's physiology, tachycardia or pre-existing bradycardia.
- A 'no-touch' technique should be used when sounding the uterine cavity and inserting an IUD.
- The use of a tenaculum is recommended to stabilise the cervix and straighten the uterocervical axis. It should be applied slowly to allow the cervical fibres to displace.

- An assessment should be made of the length of the uterine cavity.

Advice following Insertion

Insertion of an IUD may cause pain and discomfort for a few hours and women should be informed about appropriate pain relief.

Women should be informed about how to check for the presence of IUD threads and encouraged to do this regularly with the aim of recognising expulsion.

Women should be informed of the symptoms of pelvic infection (for example pain, dyspareunia, abnormal discharge and fever) and advised as to how and where to seek medical help if these occur particularly in the first three – four weeks after insertion. In addition, women should be advised to seek medical assistance at any time if they develop symptoms of pain, persistent menstrual abnormalities, missed periods, cannot palpate their threads or can feel the stem of the intra-uterine device. Women who are concerned that the device may have been expelled should be advised to use another method of contraception or abstain from intercourse until medical review. Consideration may also have to be given to the use of emergency hormonal contraception.

MRI Scans: Some radiology department's policy includes IUD removal prior to a MRI scan. The FSRH CEU suggests that IUD removal is not required when a static magnetic field up to 3 Tesla is used – patients should contact their local radiology dept when they receive their appointment and ask whether their coil needs removal.

Mooncups/Tampons: Moon Cup® manufacturer recommend waiting for 6 weeks post IUD insertion prior to use. They do not appear to be associated with an increase in IUD expulsion.

Follow-Up

Provide the MCN leaflet (Post IUD Insertion)

<https://www.wossexualhealthmcn.org.uk/portalbase/pages/download.aspx?locationId=4b5bcc42-0244-40e1-8b09-89b297d98d20>

Routine follow-up post fitting can be offered at three to six weeks to exclude perforation or expulsion. The woman can make a booked return (20 minute) appointment. Women who are happy to check their own threads do not need to return for a routine IUD review

After insertion women should be asked to return if they develop problems or wish the device to be removed or changed. In addition she should inform her smear taker at the time of cervical screening that she has an IUD in place so they may check that the threads are still visible.

Removal without reinsertion

Women who wish to conceive can have their IUD removed at any time. Pre-pregnancy advice should be offered regarding lifestyle, diet, folic acid, rubella immunity and vitamin D.

Women should be advised that if they wish to have an IUD removed and avoid pregnancy they should abstain or use another method of contraception for at least 7 days before removal.

If removal is considered essential, the patient is beyond the first three days of menstruation and another method of contraception has not been used in the previous 7 days then consideration should be given to the use of hormonal emergency contraception. This may also have to be considered if a device is being removed after partial expulsion.

Change of IUD

Women should be advised to use condoms or abstain from sexual intercourse for 7 days prior to the change in case a new IUD cannot be inserted immediately.

Extended use of an IUD

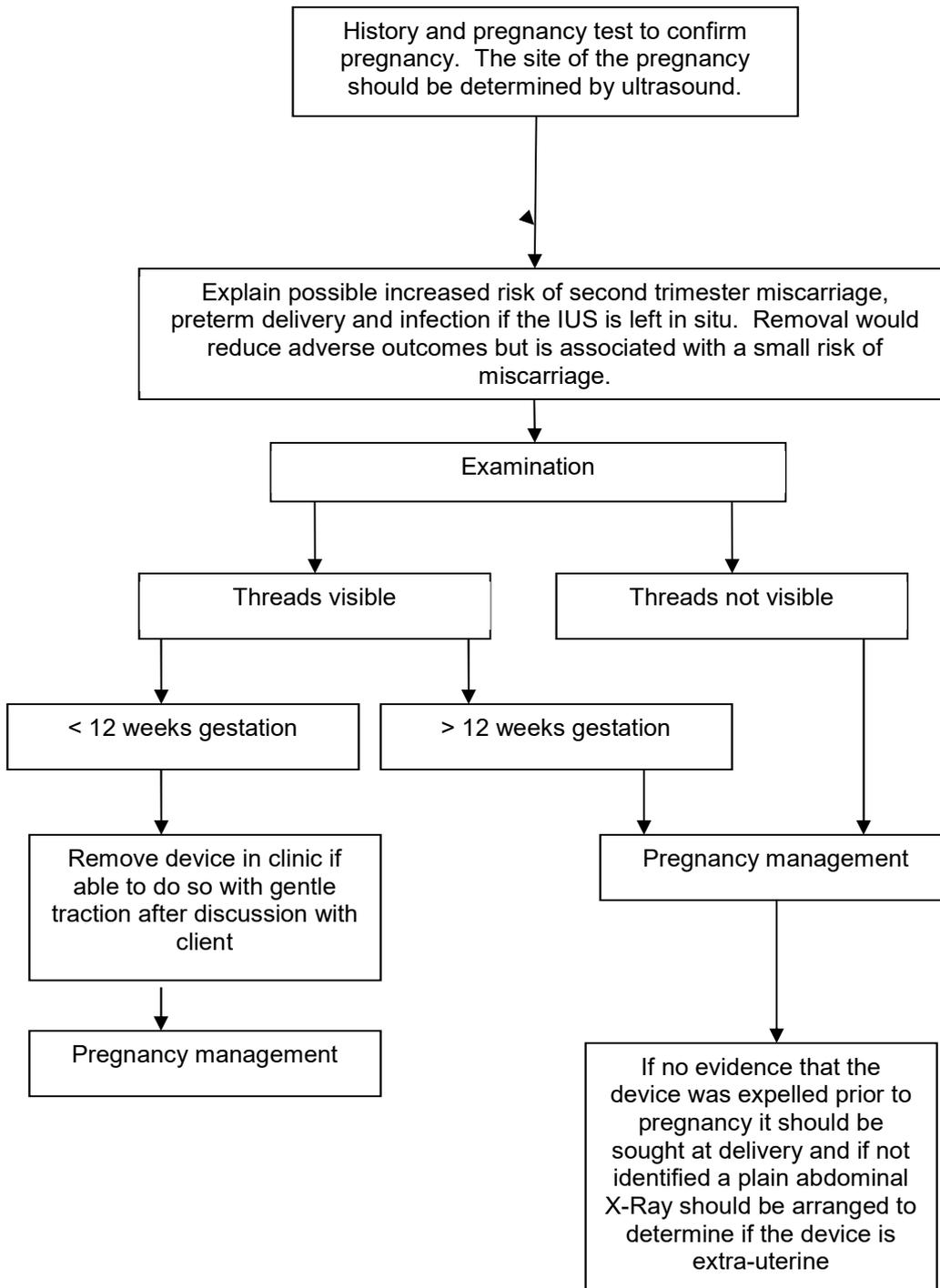
After counselling about declining fertility, contraceptive efficacy and risks associated with IUD insertion (infection, perforation, expulsion) women who have an IUD with $\geq 300\text{mm}^2$ of Cu inserted at age ≥ 40 years can retain the device until it is no longer needed after the menopause. If the last menstrual period occurs in a woman over 50 years of age, the Cu IUD should be retained for a further year. If the last menstrual period occurs in a woman under 50 years of age, the Cu IUD should be retained for a further 2 years. Women should be informed that extended use is outside the product licence.

Problems Associated with IUD usage

Suspected perforation at time of insertion	The procedure should be stopped and vital signs (blood pressure and pulse rate) and level of discomfort monitored until stable. An ultrasound scan and/or plain abdominal X-ray to locate the device if it has been left in situ should be arranged as soon as possible.
Lost threads	See flow chart.
Abnormal bleeding	Gynaecological pathology and infections should be excluded if abnormal bleeding persists beyond the first 6 months following insertion of intrauterine contraception. Clinicians should also be aware that abnormal bleeding at any time may indicate the presence of an STI or gynaecological pathology and when appropriate women should be investigated accordingly. Non-steroidal inflammatory drugs can be used to treat spotting, light bleeding, heavy or prolonged menstruation. In addition antifibrinolytics (such as tranexamic acid) may be used for heavy or prolonged menstruation. Women who find heavier bleeding associated with IUD use unacceptable may consider changing to a levonorgestrel intrauterine system.
Pregnancy	Most pregnancies in women using an IUD will be intrauterine but an ectopic pregnancy must be excluded. See flow chart to determine whether attempt should be made at IUD removal and ongoing management.

<p>Suspected pelvic infection</p>	<p>For women using an IUD with symptoms and signs suggestive of pelvic infection appropriate antibiotics should be started. There is no need to remove the IUD unless symptoms fail to resolve within the following 72 hours or unless the woman wishes removal.</p> <p>All women with confirmed or suspected PID should be followed up to ensure: resolution of symptoms and signs, their partner has also been treated when appropriate, completion of the course of antibiotics, STI risk assessment, counselling regarding safer sex and partner notification.</p>
<p>Presence of actinomyces-like organisms (ALO)</p>	<p>IUD users with ALO detected on a smear who have no symptoms should be advised there is no reason to remove the IUD unless signs and symptoms of infection occur. There is no indication for follow-up screening. If symptoms of pelvic pain occur women should be advised to seek medical advice. Other causes of infection (in particular STIs) should also be considered and it may be appropriate to remove the IUD.</p>
<p>IUD incompletely removed</p>	<p>If an IUD does not appear intact (e.g. missing copper from the stem and/or arms) discuss with a senior SRH clinician. Imaging may be required to exclude retained parts of the device.</p>

Management of a pregnancy in a woman using intrauterine contraception



Appendix 1: IUC counselling pro forma

	IUS	IUD	JAYDESS
FAILURE RATE IN 5 YEARS	<1%	< 2%	<1%
PID	1:200 IN FIRST 90 DAYS	1:200 IN FIRST 90 DAYS	1;200 IN THE FIRST 90 DAYS
EXPULSION	1 :20 IN FIRST 3 MONTHS	1:20 IN FIRST 3 MONTHS	1:20 IN THE 3 YEARS
ECTOPIC PREGNANCIES (IF PREGNANCY OCCURS)	1:2	1:2	1:2
PERFORATION	2:1000 MORE COMMON IN <6 WEEKS POSTPARTUM	2:1000 MORE COMMON IN <6 WEEKS POSTPARTUM	2:1000 MORE COMMON IN <6 WEEKS POSTPARTUM
OVARIAN CYSTS	1:100 BUT CLINICALLY NOT SIGNIFICANT	NO DIFFERENT FROM GENERAL POPULATION	FEWER THAN WITH IUS
MENSTRUAL CHANGES	3-6 MONTHS	3- 6 MONTHS	3-6 MONTHS LESS CHANCES OF AMENORRHOEA
ACNE	POSSIBLE	NO CHANGES	POSSIBLE
WEIGHT GAIN	POSSIBLE	NO CHANGES	POSSIBLE
RETURN TO FERTILITY	ON DEVICE REMOVAL	ON DEVICE REMOVAL	ON DEVICE REMOVAL

Procedure

Describe procedure
 Discuss options for PAIN RELIEF.
 50 % of women experience minimal/no pain
 Women sometimes experience "FAINT LIKE" feeling
 Describe positioning methods to minimize the feeling

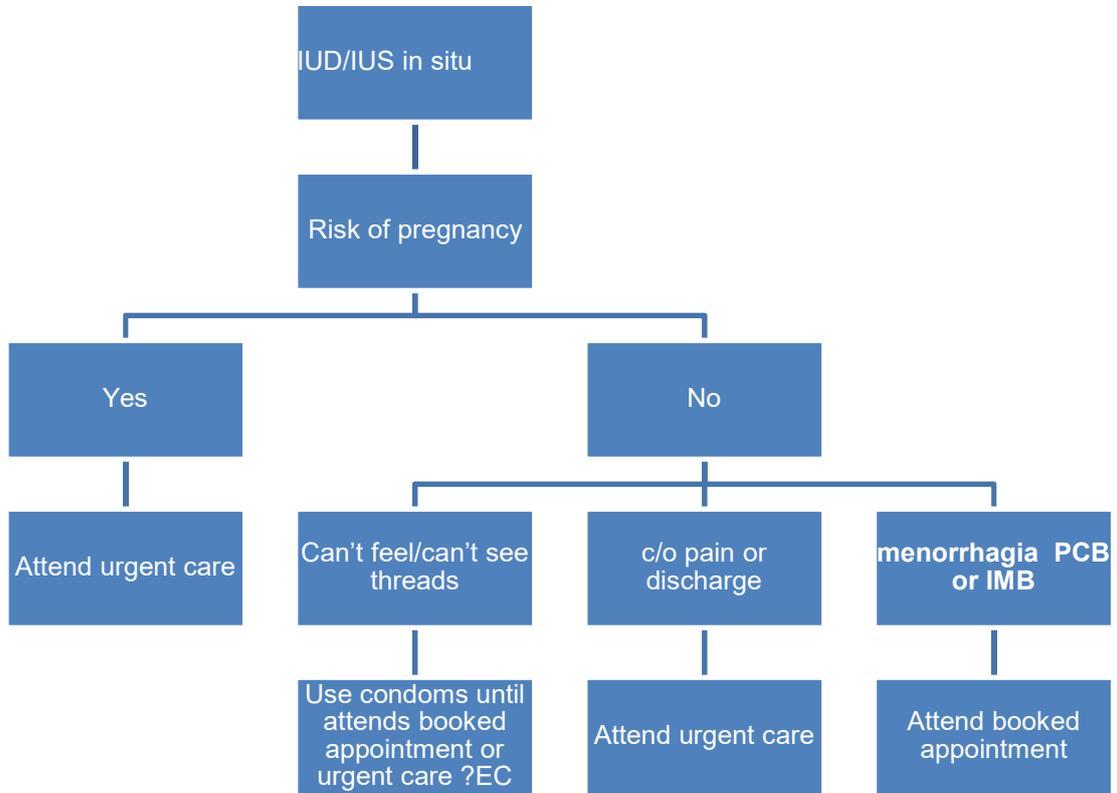
Post procedure

ADDITIONAL PRECAUTIONS discussed
 Discuss and demonstrate THREAD CHECKING
 POST INSERTION CHECK IN 3- 6 WEEKS IF UNABLE TO FEEL THE THREADS.
 Patient information leaflet given

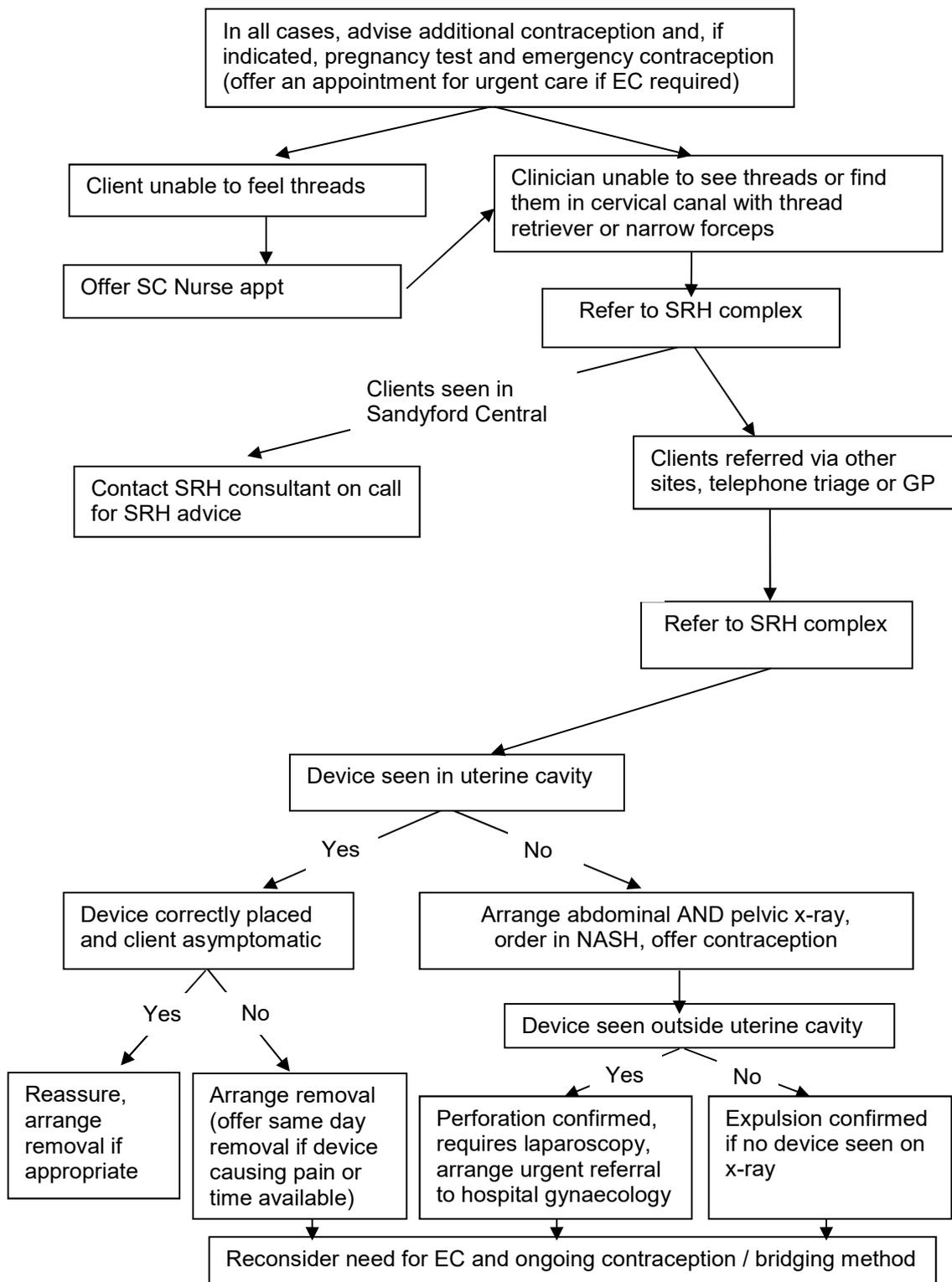
Checklist

Discuss information as per evidence based chart
 Discuss procedure
 Discuss post procedure management /follow up

Telephone helpline: Flow Chart IUD/IUS Problems



Sandyford Protocol for Management of Missing IUD Threads



* If a clinician trained in US scanning is on the rota for urgent care clinic they should ideally be allocated a room with an US machine or they can take the client to room 12 on the 1st floor. Check with TOPAR staff that the room is free.

N.B. Clients returning for removal of an IUD/IUS with missing threads: ideally contact the consultant on call for SRH advice. If unavailable, arrange internal referral to SRH complex.

Management of patients following PPIUC (Postpartum Intrauterine Contraception)

Background

Postpartum intrauterine contraception or 'PPIUC' refers to the insertion of intrauterine contraception within 48 hours after delivery, either at time of caesarean section or following vaginal birth. As the expulsion rate is slightly higher, and a higher proportion of women are likely to have non-visible threads, women are advised to attend for a coil check, as opposed to self-checking for threads. Women are advised to attend Sandyford services for a coil check approximately 4-6 weeks after insertion of PPIUC.

Referrals are emailed to Sandyford.PostPartum@ggc.scot.nhs.uk by the maternity services. An appointment is then arranged by the Sandyford Administration Team.

Referral details can be found in NaSH under MEDIA ITEMS PPIUC REFERRAL.

Many women will be due their cervical screening, use this as an opportunity to perform opportunistic screening if needed.

Visible Threads

If threads are visible and appropriate length, and patient has had no problems since insertion, then they can be reassured. No further follow-up is necessary.

Long threads

Threads are either not trimmed, or left longer, at the time of insertion of PPIUC, to allow for involution of the enlarged uterus. The threads may be longer in the vagina, or may even protrude beyond the vaginal entrance.

- If threads protrude beyond vaginal entrance, they can be trimmed to skin prior to speculum examination
- The threads can be teased from underneath the speculum blades with a cotton swab to allow for easier trimming
- Threads can be trimmed to standard length (2-3cm beyond cervical os)
- Unless the stem of the intrauterine contraception (IUC) is visible, or symptoms suggest possible partial expulsion, no further action is required
- US scan is not routinely required for long threads in this setting

Device at cervix

The expulsion rate after PPIUC is slightly higher, and a proportion of these may be partial expulsion. The patient may have had symptoms such as pain, particularly during intercourse.

- If the stem of the device is visible, remove at initial review provided there has been no unprotected sex within the past 7 days.
- If the device is removed, emergency contraception should be considered, and a plan made for ongoing contraception.
- If the patient wishes further IUC then an appointment for this can be arranged and an interim method of contraception should be arranged. **An appointment should be accommodated within 2 weeks.**

Patients can be appointed to:

- IUD list
- SC SRH PPIUC on a Monday AM
- SC UC with SRH support

Non-visible threads

Due to the methods of insertion of PPIUC, up to 50% of women may have non-visible threads at initial review. The majority of devices will still be in-situ, but expulsion requires to be excluded.

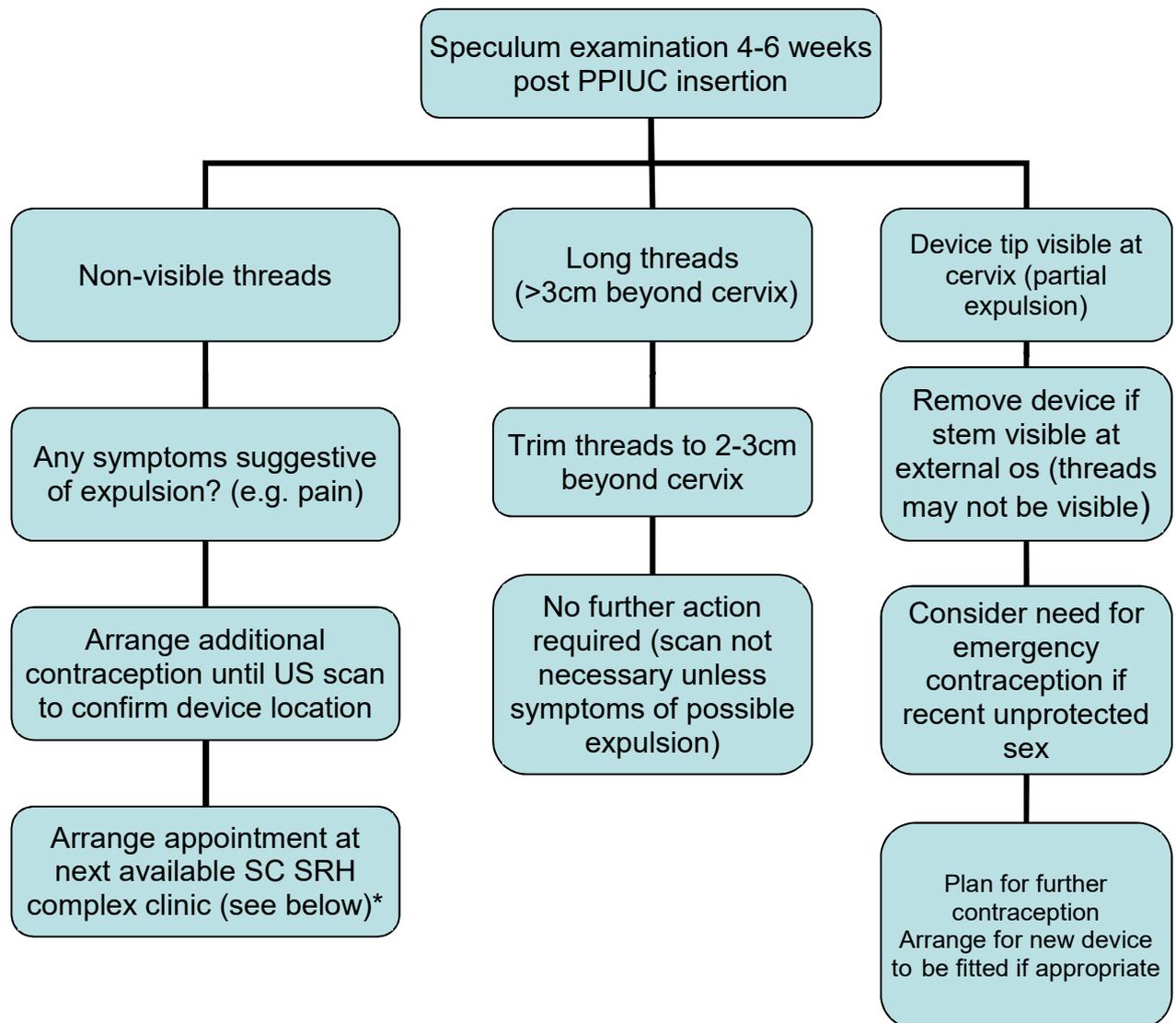
Management at Initial Review

- Enquire as to whether there is any obvious history of expulsion, or symptoms suggestive of this (e.g. pain, particularly during intercourse)
- Arrange for follow-up US scan. **This should be within 2 weeks. If unable to accommodate please discuss with SRH Consultant On-Call.**
 - Appoint to either (see flow-chart)
 - SC SRH PPIUC Monday AM clinic
 - SC UC with SRH Support
- Arrange an alternative method of contraception in the interim

Management in SRH Complex clinic

- If no device seen in uterine cavity on US scan, and no clear history of expulsion, arrange an abdominal/pelvic X-ray to exclude perforation. Consider ongoing contraceptive need.
- If no device seen on abdominal/pelvic x-ray, proceed to reinsertion of new device if patient wishes, no risk of pregnancy, and over 4 weeks post-partum.
- If device located within uterine cavity patient can be reassured and no further action required.
- Women can be advised if threads do not become visible with time, she may require to return to Sandyford services to have device changed or removed when the time comes.

Flowchart: Thread Check Post Insertion of IUC at Caesarean Section or following Vaginal Birth



Patients requiring USS to confirm device location should be appointed within 2 weeks to:

- SC SRH PPIUC Monday AM clinic
- SC UC with SRH Support
- Please discuss with SRH Consultant On-call if any issues

References:

Faculty of Sexual and Reproductive Health Care Clinical Effectiveness Unit FSRH Guidance (June 2015) Intrauterine Contraception.
<http://www.fsrh.org/pdfs/CEUGuidanceIntrauterineContraception.pdf> [accessed December 2020]

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<http://www.fsrh.org/pdfs/ContraceptionOver40July10.pdf> [accessed December 2020]

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