FAMILY PLANNING ALLIANCE AUSTRALIA

Pregnancy with an Intrauterine Device in-situ

Family Planning Alliance Australia: Statement from the Clinical Reference Group of the Medical Advisory Committee March 2022

Background

The risk of unintended pregnancy during intrauterine device (IUD) use is very low, with hormonal IUDs being slightly more effective than copper IUDs. (1, 2)

The overall risk of pregnancy, including ectopic pregnancy, is reduced with an IUD. However, in the rare situation when conception occurs in the presence of an IUD, there is a much greater likelihood of ectopic pregnancy and clinicians need to consider and exclude this diagnosis. (3)

Diagnosing pregnancy

In those using a hormonal IUD, symptoms of pregnancy can be atypical. A urine pregnancy test should be considered if the person develops a change in bleeding associated with any new lower abdominal pain, dyspareunia or signs of pregnancy including nausea, fatigue and breast tenderness.

Pregnancy diagnosed

The important steps are to diagnose/exclude ectopic pregnancy, determine whether the IUD has been expelled or has perforated and to remove the IUD if it is safe to do so. (see below).

History and examination

If the person has any of the warning signs and symptoms of ectopic pregnancy including:

- severe abdominal pain
- unilateral pelvic or shoulder tip pain
- a feeling of light headedness

Or has:

- Haemodynamic instability
- unilateral pelvic tenderness or cervical excitation on pelvic examination
- signs of peritonism

They should be referred straight to emergency services.

Ultrasound

A trans vaginal ultrasound should be arranged to assess the location of the pregnancy
Advice patients to present to emergency services immediately if they develop symptoms of ectopic pregnancy (see above).

Determine if the IUD is intrauterine

If the IUD is not seen on ultrasound an abdominal X-Ray is required to diagnose or exclude perforation. If the person wishes to continue with the pregnancy the X-Ray can be delayed until the pregnancy is completed. If the IUD is intra-abdominal and the person wishes to have an abortion, it might be possible to perform a surgical abortion at the time of laparoscopic surgery to remove the IUD.

Managing an intrauterine pregnancy with an IUD in situ

Earliest possible removal of the IUD is recommended, regardless of pregnancy intention. If the gestation is highly likely to be less than 12 weeks, removal can be performed prior to ultrasound confirmation of pregnancy location. Antibiotic cover is not required for removal in primary care or while waiting for specialised removal services.

Abortion

If a surgical abortion is the intended outcome of the pregnancy, removal of the IUD can be deferred to the time of the procedure. A medical abortion is contraindicated unless the IUD is removed. (4)

Continuing pregnancy

The evidence about the adverse outcome of pregnancy conceived with IUD in-situ is mostly based on studies of copper IUDs.(5) There is a limited evidence base for pregnancies conceived with hormonal IUD in-situ, but the recommendations below have been extrapolated to hormonal IUDs. (6).

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Clients should be counselled that a pregnancy conceived with an IUD in-situ is at greater risk of preterm birth and chorioamnionitis, compared to a pregnancy not exposed to an IUD. However, these risks are significantly reduced if the IUD is removed, but not to the baseline risk. (5)

Removal of the IUD can reduce the risk of spontaneous miscarriage from 54% to 20% in those seeking to continue the pregnancy. (7)

Clients can be reassured that there is no evidence to suggest an increased risk of congenital malformations. There is no increased risk of adverse childhood outcomes provided the pregnancy goes to term, when a pregnancy is conceived with an IUD in-situ, although evidence for hormonal IUDs is limited. (5, 8)

IUD removal in pregnancy

First Trimester

Threads visible

Remove the IUD as soon as possible. Sterile gloves or antibiotics are not required. This can be done prior to ultrasound. (6)
Although IUD removal can be associated with miscarriage, the risks of miscarriage are much higher if the IUD is retained. (5)
Monitor for symptoms of miscarriage and refer for management of pregnancy as usual.

Threads not visible

Removal is usually performed under ultrasound guidance.(9) Refer to a specialised service for removal.

IUD unable to be removed

If the pregnancy is intended to continue and the IUD cannot be removed, there is a significant risk of the complications discussed above.(5, 7) Early referral for specialist obstetric care provider is advised.

Second trimester

IUD removal should not be attempted in primary care during the second trimester. Referral to a gynaecologist is advised. (6)

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References

1. Heinemann K, Reed S, Moehner S, Minh TD. Comparative contraceptive effectiveness of levonorgestrel-releasing and copper intrauterine devices: the European Active Surveillance Study for Intrauterine Devices. Contraception. 2015;91(4):280-3.
2. Gemzell-Danielsson K, Apter D, Dermout S, Faustmann T, Rosen K, Schmelter T, et al. Evaluation of a new, low-dose levonorgestrel intrauterine contraceptive system over 5 years of use. Eur J Obstet Gynecol Reprod Biol. 2017;210:22-8.
3. Raine-Bennett T, Fassett MJ, Chandra M, Armstrong MA, Shi JM, Chiu VY, et al. Ectopic pregnancy prevention: Further evidence of benefits of prescription contraceptives. Contraception. 2022;105:19-25.
4. Australian Product Information Ms-2-Step (Mifepristone and Misoprostol) Tablets MS Health. Updated 12 August 2021.
5. Brahmi D, Steenland MW, Renner RM, Gaffield ME, Curtis KM. Pregnancy outcomes with an IUD in situ: a systematic review. Contraception. 2012;85(2):131-9.
6. Intrauterine Contraception: Faculty of Sexual & Reproductive Healthcare Clinical Effectiveness Unit; 2015 [updated September 2019; cited 2021 23 June]. Available from: https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception/.
7. Tatum HJ, Schmidt FH, Jain AK. Management and outcome of pregnancies associated with the Copper T intrauterine contraceptive device. American journal of obstetrics and gynecology. 1976;126(7):869-79.
8. Tamari I, Wainstock T, Sheiner E, Pariente G. Long-Term Incidence of Infectious-Related Hospitalizations of Offspring Born to Mothers With Intrauterine Device: A Retrospective Population-Based Cohort Study. Pediatr Infect Dis J. 2020;39(4):325-9.
9. Townsend L, Luxford E, Mizia K. Effectiveness of ultrasound-guided removal of intrauterine devices. Aust N Z J Obstet Gynaecol. 2022.

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The Medical Advisory Committee of Family Planning Alliance Australia is comprised of senior medical educators, senior medical officers and medical directors of the member family planning organisations. The Clinical Reference Group of the Medical Advisory Committee exists as a means to review current clinical practice and provide evidence based recommendations for use by sexual and reproductive health practitioners where clinical guidance is lacking.

State / Territory sexual health and family planning organisations

Western Australia
SHQ (Sexual Health Quarters)
shq.org.au

Northern Territory
Family Planning Welfare Association of NT
fpwnt.com.au

South Australia
SHINE SA
shinesa.org.au

Queensland
True
true.org.au

ACT
Sexual Health and Family Planning ACT
shfpact.org.au

New South Wales
Family Planning NSW
fpnsw.org.au

Victoria
Sexual Health Victoria
shvic.org.au

Tasmania
Family Planning Tasmania
fpt.asn.au