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Long-acting reversible contraception

NICE CG30; 2005

This guideline gives recommendations on long-acting reversible contraception (LARC).

Definition of terms

IUD	intrauterine device
IUS	intrauterine system
DMPA	depot medroxyprogesterone acetate
NET-EN	norethisterone enantate
COC	combined oral contraceptive
STI	sexually transmitted infection
NSAID	non-steroidal anti-inflammatory drug

Cost effectiveness

- LARC methods are more cost effective than the COC pill even at 1 year of use.
- IUDs, the IUS and the implant are more cost effective than injectable contraceptives.
- Increasing the use of LARC will reduce the number of unwanted pregnancies.

Care pathway – see full guideline

Choice of LARC method

ALL LARC methods are suitable for women:

- who are nulliparous,
- who are breastfeeding,
- who have had an abortion,
- with migraine (with or without aura),
- with a contraindication to oestrogen,
- with HIV,
- with BMI >30,
- with diabetes

See: Table 1 for considerations in different women.
Table 2 for counselling information.

Informed consent for special groups – see full guideline

IUD: when choosing consider:

- the licensed duration of use,*
- the most effective IUDs contain at least 380 mm^2 of copper and have banded copper on the arms.

Implant: not recommended for women taking enzyme-inducing drugs e.g. rifampicin, phenytoin, carbamazepine*

*See Summary of Product Characteristics (SPC) for full prescribing information.

Initiation of method

Exclude pregnancy by menstrual and sexual history.

If it is reasonably certain that the woman is not pregnant, the LARC can be fitted/administered:

IUD/IUS (Mirena®)

- at any time during the menstrual cycle (**IUS****),
- immediately after first or second trimester abortion, or at any time afterwards,
- from 4 weeks post-partum, irrespective of the mode of delivery.

Progestogen-only injection (DMPA/ NET-EN)

- up to and including the fifth day of the menstrual cycle without the need for additional contraceptives,
- at any other time in the cycle; use barrier contraception for 7 days after injection,
- immediately after first or second trimester abortion, or at any time afterwards,
- at any time post-partum.

Implant (Implanon®)

- at any time,**
- immediately after abortion in any trimester,
- at any time post-partum.

**if the woman is amenorrhoeic or it is >5 days since menstrual bleeding started use barrier contraception for first 7 days.

Cautions and counselling

- For irregular/heavier/prolonged bleeding due to use of device:
  IUD: treat with NSAIDs and tranexamic acid, OR suggest changing to the IUS if bleeding is unacceptable.
  Implant/DMPA: treat with mefenamic acid or ethinylestradiol.
- If pregnancy occurs:
  IUD/IUS - remove before 12 weeks' gestation, whether or not the woman intends to continue the pregnancy.
  Implant: remove the implant if continuing with the pregnancy although there is no evidence of a teratogenic effect.
  DMPA: there is no evidence of congenital malformation to the fetus if pregnancy occurs during use.
- For women using **DMPA:**
  - repeat injections may be given up to 2 weeks late without the need for additional contraceptives (unlicensed use),
  - for use beyond 2 years, carry out a clinical review, discuss the benefits and risks, and support the woman's choice.

Table 1: Choice of LARC method in different women

	IUD	IUS	Implant	DMPA
Adolescents	No specific restrictions		No specific restrictions	Care needed: only use if other methods unacceptable/unsuitable
Women aged > 40 years	No specific restrictions		No specific restrictions	Care needed: generally benefits outweigh risks
Women with epilepsy	♦ no specific contraindications ♦ seizure risk may be increased at the time of fitting;have emergency drugs including anti-epileptic medication available.		♦ not recommended for women taking enzyme-inducing drugs e.g. phenytoin, carbamazepine*	♦ no specific contraindications ♦ may be associated with reduced seizure frequency
Women at risk of STI	Tests may be needed before insertion		No specific contraindications	

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Contraceptive provision

- Women requiring contraception should be given information about and offered a choice of all methods including LARC.
- All healthcare professionals providing LARC methods need training in the relevant skills.
- If LARC is not provided within the practice/service a referral mechanism should be in place.

Table 2: Counselling – Information for discussion with women choosing a LARC method

	IUD	IUS	Progestogen-only injection	Implant
How it works	By preventing fertilisation and inhibiting implantation	Mainly by preventing implantation; sometimes by preventing fertilisation	By preventing ovulation	By preventing ovulation
Duration of use	5 to 10 years for IUDs with 380 mm^2 copper – see SPC	5 years	Repeat injections every 12 weeks (DMPA) or every 8 weeks (NET-EN; maximum of 2 injections)	3 years
Failure rate	< 2 in 100 women over 5 years Expulsion in < 1 in 20 women in 5 years	< 1 in 100 women over 5 years Expulsion in < 1 in 20 women in 5 years	< 0.4 in 100 women over 2 years Pregnancy rates lower for DMPA than NET-EN	< 0.1 in 100 women over 3 years
Advice at time of fitting	♦ There may be pain and discomfort for a few hours and light bleeding for a few days ♦ Watch for symptoms of uterine perforation ♦ Follow-up visit after first menses or 3 to 6 weeks after insertion ♦ Return at any time if problems or if wish to change method ♦ Check for threads regularly ♦ Device may remain in place until contraception no longer needed even if this is beyond the duration specified by the UK Marketing Authorisation (see SPC) for the following women: **IUD**: Women aged ≥ 40 years at time IUD inserted, **IUS**: Women aged ≥ 45 years at time IUS inserted and are amenorrhoeic		♦ Return for next injection or if problems	♦ Insertion and removal cause discomfort and bruising; technical problems in less than 1 in 100 procedures ♦ If an implant cannot be palpated it should be localised by ultrasound before being removed; deeply inserted implants often need to be removed by an expert ♦ No routine follow-up but return at any time if problems or to change/discontinue method
Discontinuation rates	Up to 50% of women stop using IUDs within 5 years	Up to 60% of women stop using IUS within 5 years	Up to 50% of women stop using DMPA by 1 year	Up to 43% of women stop using Implanon® within 3 years
Most common reason for discontinuation	Unacceptable vaginal bleeding and pain		Altered bleeding pattern such as persistent bleeding	Irregular bleeding (33%) Other reasons < 10%
Risks	**Ectopic pregnancy:** ♦ Overall rates lower than with no contraception ♦ Risk 1 in 20 if a woman becomes pregnant with IUD/ IUS in situ – seek advice to exclude this **Pelvic inflammatory disease:** less than 1% for women at low risk of STI **Uterine perforation:** less than 1 in 1000 **Change in mood/libido:** may be a small effect; similar for IUD and IUS **Acne:** IUS - risk may be increased, but is an uncommon reason for stopping use **No evidence of an effect on:** weight gain		**DMPA** **Bone mineral density:** ♦ Associated with small loss, largely recovered when it is stopped ♦ No evidence that fracture risk increased **Weight gain:** may be up to 2 to 3 kg over a year **No evidence of an effect on:** depression, acne, headaches	**Acne:** may occur **No evidence of an effect on:** weight, mood, libido, headaches and bone mineral density
Effect on menstruation	Heavier bleeding and/or dysmenorrhoea likely	♦ Irregular bleeding and spotting common in first 6 months ♦ Oligomenorrhoea or amenorrhoea likely by end of first year	♦ Amenorrhoea is common, but not harmful – more likely wth DMPA than NET-EN and with longer use ♦ Persistent bleeding may occur	♦ Changes in bleeding pattern which are likely to remain irregular; ➢ 20% of women have no periods ➢ 50% of women have infrequent, frequent or prolonged bleeding ♦ Dysmenorrhoea may improve
Return to fertility	No evidence of delay		♦ Can take up to a year ♦ Women who do not want to get pregnant should start a different contraceptive as soon as injections stop	No evidence of delay