Long-acting reversible contraception: the effective and appropriate use of long-acting reversible contraception

NICE guideline

First draft for consultation, March 2005

If you wish to comment on this version of the guideline, please be aware that all the supporting information and evidence is contained in the full version.

Contents

Introduction

It is estimated that about 30% of pregnancies that end in childbirth are unplanned. The effectiveness of barrier method and oral contraceptive pills is dependent on their correct and consistent use. By contrast, long-acting reversible contraceptive (LARC) methods have effectiveness that does not depend on daily compliance. Currently there is very low uptake of LARC, at around 8% of contraceptive usage, compared with 25% for the oral contraceptive pill and 23% for the barrier method among women aged 16 to 49 in 2003/4 in the UK.

Expert clinical opinion is that LARC methods may have a wider role in contraception and their increased uptake could help to reduce unintended pregnancy. The current limited use of LARC suggests that health professionals need better guidance and training so that they can help women make an informed choice. Enabling women to make an informed choice about LARC and addressing consumer preferences is an important objective of this guideline.

LARC is defined in this guideline as contraceptive methods that require administration less than once per cycle or month. Included in the category of LARC are:

- copper intrauterine devices
- progestogen-only intrauterine systems
- progestogen-only injectable contraceptives
- progestogen-only subdermal implants.

The guideline offers the best-practice advice for all women of reproductive age who may wish to regulate their fertility through the use of LARC methods and covers specific issues for the use of these methods in women during the menarche and before the menopause. The guideline also identifies specific issues that may be relevant to particular groups, including women with HIV, learning disabilities, or physical disabilities, or who are younger than 16.

Patient-centred care

This guideline offers the best-practice advice on the provision of guidance and care for women who are considering or using LARC.

Treatment and care should take into account women's individual needs and preferences. Women who are considering using or who use LARC should have the opportunity to make informed decisions about their care and treatment. If the woman does not have the capacity to make decisions, healthcare professionals should follow the Department of Health guidelines, *Reference guide to consent for examination or treatment* (2001) (available from www.dh.gov.uk).

Good communication between healthcare professionals and women is essential. It should be supported by the provision of evidence-based information offered in a form that is tailored to the needs of the individual woman. The treatment, care and information provided should be culturally appropriate and in a form that is accessible to people who have additional needs, such as people with physical, cognitive or sensory disabilities, and people who do not speak or read English.

Unless specifically excluded by the woman, carers and relatives, if appropriate, should have the opportunity to be involved in decisions about the woman's care and treatment.

Carers and relatives should, if appropriate, also be provided with the information and support they need.

Key priorities for implementation

The following recommendations have been identified as priorities for implementation.

Contraceptive provision in the UK

- Women requiring contraception should be provided with information and offered a choice of all methods, including long-acting reversible contraception (LARC) methods.

Counselling and provision of information

- Women considering a LARC method should receive both verbal and written information that will enable them to choose and use the method effectively. This information should take into consideration their individual needs and should include:

    - contraceptive efficacy
    - risks and possible side effects
    - non-contraceptive benefits
    - the procedure for initiation and removal/discontinuation
    - duration of use
    - when to seek help while using the method.

Training of health professionals in contraceptive care

- All healthcare professionals advising women about contraceptive choices should be competent to:

    - assist women to consider and compare the risks and benefits of all methods relevant to their individual needs
    - manage common side effects.

- All healthcare professionals providing contraceptive care should ensure that they have an agreed mechanism in place for referring women for LARC if they do not provide LARC within their own practice/service.

- All healthcare professionals providing intrauterine or subdermal contraceptives should receive training to develop and maintain the relevant skills to provide these methods.

The following guidance is evidence based. Appendix A shows the grading scheme used for the recommendations: A, B, C, D or good practice point – D(GPP). A summary of the evidence on which the guidance is based is provided in the full guideline (see Section 5).

1 Guidance

1.1 Principles of care and contraceptive use

1.1.1 Normal fertility

1.1.1.1 Women and men should be aware that unprotected sexual intercourse risks pregnancy especially when it occurs in the days leading up to ovulation. **[C]**

1.1.2 Contraceptive provision in the UK

1.1.2.1 Family planning is a human right. Women and men should have access to all available types of licensed contraception and be free to choose the method that suits them best. **[GPP]**

1.1.2.2 Women requiring contraception should be provided with information and offered a choice of all methods, including long-acting reversible contraception (LARC) methods. **[GPP]**

1.1.3 Counselling and provision of information

Method of information giving

1.1.3.1 Women and men should be given accurate and detailed information, including written information, about their chosen method of contraception. **[B]**

1.1.3.2 Women considering a LARC method should receive both verbal and written information that will enable them to choose and use the method effectively. This information should take into consideration their individual needs and should include:

- contraceptive efficacy
- risks and possible side effects
- non-contraceptive benefits
- the procedure for initiation and removal/discontinuation
- duration of use
- when to seek help while using the method. **[GPP]**

Specific groups

1.1.3.3 Counselling about contraception should be sensitive to cultural differences and religious beliefs. **[GPP]**

1.1.3.4 For women whose first language is not English, written information about contraceptive methods should be available in their native language. **[GPP]**

1.1.4 Contraceptive prescribing

1.1.4.1 A detailed medical history, including family history, menstrual, contraceptive and sexual history, should be taken as part of the routine assessment of medical eligibility for individual contraceptive methods. **[GPP]**

1.1.4.2 All health professionals helping women to make contraceptive choices should be familiar with nationally agreed guidance on medical eligibility and recommendations for contraceptive use. **[GPP]**

1.1.5 Acceptability

1.1.5.1 Women should be provided with the method of contraception which is most acceptable to them. **[GPP]**

1.1.6 Contraception and sexually transmitted infection

1.1.6.1 All healthcare professionals providing contraceptive advice should promote safe sex. **[GPP]**

1.1.6.2 Women using LARC should be encouraged to also use condoms with a new partner. **[GPP]**

1.1.7 User autonomy and consent

1.1.7.1 Women (couples) should have freedom of choice in contraceptive methods. **[GPP]**

1.1.8 Training of health professionals in contraceptive care

1.1.8.1 All healthcare professionals advising women about contraceptive choices should be competent to:

- assist women to consider and compare the risks and benefits of all methods relevant to their individual needs
- manage common side-effects. **[GPP]**

1.1.8.2 All healthcare professionals providing contraceptive care should ensure that they have an agreed mechanism in place for referring women for LARC if they do not provide LARC within their own practice/service. **[GPP]**

1.1.8.3 All healthcare professionals providing intrauterine or subdermal contraceptives should receive training to develop and maintain the relevant skills to provide these methods. **[GPP]**

1.2 Copper intrauterine devices (IUDs)

1.2.1 Introduction

Mechanism of action

1.2.1.1 Women should be advised that there is evidence that IUDs probably act by both inhibiting implantation and impairing gamete viability. **[C]**

Duration of action

1.2.1.2 Women who are aged 40 and older at the time of copper IUD insertion can retain the device until they no longer require contraception. **[GPP]**

1.2.2 Effectiveness

Frameless versus framed IUDs

1.2.2.1 Clinicians should be aware that the T-Safe Cu380A is the copper IUD of choice because of its effectiveness and duration of action. **[B]**

1.2.2.2 Women should be informed that modern IUDs are very effective. Pregnancy rates over 5 years are less than 2 in 100 women. **[C]**

1.2.3 Expulsion

Copper IUDs versus other contraceptive methods

1.2.3.1 Women should be advised that an IUD may be expelled but that this occurs in fewer than 1 in 20 women. **[C]**

1.2.3.2 Women should be advised to check for the presence of the IUD threads regularly with the aim of recognising expulsion. **[GPP]**

1.2.4 Discontinuation and reasons for discontinuation

Copper IUDs versus other contraceptive methods

1.2.4.1 Health professionals should be made aware that up to 50% of women will stop using the IUD within 5 years. The most common reason for discontinuation is unacceptable vaginal bleeding. **[B]**

1.2.5 Adverse effects

Bleeding problems

Copper IUDs

1.2.5.1 Clinicians should be made aware of the risk of heavier bleeding and/or dysmenorrhea with IUD use. **[B]**

Management of bleeding problems

1.2.5.2 Heavier bleeding with IUD use can be effectively treated with non-steroidal anti-inflammatory drugs and tranexamic acid. **[B]**

1.2.5.3 Women who find heavy bleeding in association with a copper IUD may consider changing to a LNG-IUS (levonorgestrel intrauterine system). **[GPP]**

1.2.6 Anaemia

1.2.6.1 Women with established iron-deficiency anaemia should not usually use a copper IUD. **[GPP]**

1.2.7 Common symptoms and complaints

Weight change

1.2.7.1 Women should be informed that the use of the IUD does not affect weight. **[B]**

Altered libido and mood

1.2.7.2 Woman should be advised that the IUD does not affect mood or libido. **[B]**

1.2.8 Risks

Cardiovascular disease

1.2.8.1 Follow current national guidance, such as that provided by the *British National Formulary* or Faculty of Family Planning &

Reproductive Health Care for the prevention of infective endocarditis. **[GPP]**

Ectopic pregnancy

Copper IUDs versus other contraceptive methods

1.2.8.2 Women with a previous ectopic pregnancy are at increased risk of future pregnancies being outside the uterus. However, these women should be reassured that the risk while using copper IUD is extremely low. **[C]**

1.2.8.3 Women should be advised that in the event of method failure the risk of ectopic pregnancy is less than 1 in 500. **[C]**

1.2.8.4 Women who present with a copper IUD failure should have an ectopic pregnancy excluded. **[GPP]**

Actinomyces-like organisms

Copper IUDs versus other contraceptive methods

1.2.8.5 The presence of actinomyces-like organisms on a cervical smear in a woman with a current copper IUD requires no action unless pelvic infection is suspected. **[GPP]**

Pelvic inflammatory disease (PID)

Prevention of PID

1.2.8.6 Women may be informed that the chance of developing pelvic inflammatory disease as a result of copper IUD use is very low. **[C]**

1.2.8.7 All women should be offered screening for sexually transmitted infections before IUD insertion and women at risk of sexually transmitted infections should be strongly encouraged to accept the offer. **[GPP]**

Uterine perforation

1.2.8.8 Women should be informed of the small risk of perforation at the time of IUD insertion and advised on symptoms warranting early review. **[GPP]**

Women who become pregnant

1.2.8.9 Women who become pregnant with the IUD in situ should be advised to consult early to exclude ectopic pregnancy. **[GPP]**

1.2.8.10 If the pregnancy is intrauterine and if the IUD can be easily removed it should be. **[GPP]**

1.2.9 Return to fertility

Copper IUDs versus other contraceptive methods

1.2.9.1 There is no evidence for any delay in return of fertility following removal or expulsion of copper IUD. **[C]**

1.2.10 Details of method use

Assessment prior to fitting

1.2.10.1 A healthcare worker fitting a copper IUD should have reasonably excluded relevant genital tract infection (cervical or pelvic) (chlamydia, gonorrhoea and pelvic inflammatory disease) by assessing sexual history, clinical examination and undertaking laboratory tests as appropriate. **[GPP]**

Position within cavity

1.2.10.2 Women should be informed that the position of the uterus within the pelvis or the position of a framed IUD within the uterine cavity does not influence failure rates or expulsion. **[C]**

Time of fitting of IUD

Post delivery

1.2.10.3 Copper IUDs can be inserted from 4 weeks post partum irrespective of the mode of delivery. **[GPP]**

1.2.11 Training

1.2.11.1 IUDs should only be fitted by trained personnel with continuing experience of fitting at least one copper IUD a month. **[GPP]**

1.2.12 Specific groups

Age

Women over 40 years of age

1.2.12.1 Women should be informed that women of all ages can use copper IUDs. **[GPP]**

Women who are breastfeeding

1.2.12.2 Women should be informed that copper IUDs can safely be used by women who are breastfeeding. **[C]**

1.2.13 Medical conditions and contraindications

Diabetes

1.2.13.1 Women should be informed that diabetes poses no restriction to use of copper IUDs. **[GPP]**

Sexually transmitted infections and HIV/AIDS

1.2.13.2 Women should be informed that women who are HIV positive can use the copper IUD. **[GPP]**

1.2.14 Follow-up

1.2.14.1 A follow-up visit should be carried out after the first menses, or 3 to 6 weeks after insertion to exclude infection, perforation or

expulsion. Thereafter, a woman should be advised to return at any time to discuss problems, if she wants to change her method, or when it is time to have the IUD removed. **[GPP]**

Information prior to insertion

1.2.14.2 Women should be advised of failure rates, benefits, risks and side effects of the copper IUD. **[GPP]**

1.3 Progestogen only intrauterine system (POIUS)

1.3.1 Introduction

Mechanism of action

1.3.1.1 The main mechanism of action of the LNG-IUS as a contraceptive is to prevent implantation. Women should be advised that LNG-IUS as a contraceptive may act predominantly to prevent implantation and may not always prevent fertilisation. **[GPP]**

Duration of action

1.3.1.2 LNG-IUS can be used as a long-term contraceptive and requires replacement every 7 years. **[GPP]**

Effectiveness

LNG-IUS versus other contraceptive methods

1.3.1.3 Women should be informed that there is a very small pregnancy rate (less than 5 women out of every 1000 users at the end of 5 years) associated with the use of LNG-IUS. **[B]**

Expulsion

LNG-IUS versus other methods

1.3.1.4 Women should be advised that fewer than one in ten women will experience expulsion of LNG-IUS over a 5-year period. **[C]**

Discontinuation and reasons for discontinuation

LNG-IUS versus other contraceptive methods

1.3.1.5 Women should be advised that the most common side effects that lead to discontinuation of LNG-IUS use are:

- bleeding problems
- pain.

The less common side effects are:

- hormone-related
- pelvic inflammatory disease. **[B]**

1.3.2 Adverse effects

Bleeding problems

Management of bleeding problems

1.3.2.1 Women may be advised that oligoamenorrhoea or amenorrhoea is highly likely to occur by the end of the first year of LNG-IUS insertion. However, persistent bleeding and spotting are common at first, sometimes for 6 months. **[GPP]**

1.3.3 Common symptoms and complaints

Weight change

LNG-IUS versus other contraceptive methods

1.3.3.1 Women should be informed that there is some evidence of body weight change in LNG-IUS users when compared with users of IUDs and that if it occurs, it is small and not a common reason for discontinuation. **[C]**

Altered mood and libido

LNG-IUS versus other contraceptive methods

1.3.3.2 Users of the LNG-IUS should be reassured that there is no increase above background prevalence in loss of libido or depression. **[C]**

Acne

LNG-IUS versus other contraceptive methods

1.3.3.3 Women should be informed that they may be at an increased risk for developing acne, which may lead to requests for discontinuation of the LNG-IUS. **[C]**

Headache and migraines

LNG-IUS versus other contraceptive methods

1.3.3.4 Women should be informed that all progestogen-only methods, including the LNG-IUS may be used by women who have migraine with or without aura. However, if the aura becomes more severe or frequent the headaches should be investigated and alternative methods of contraception considered. **[GPP]**

1.3.4 Risks

Cardiovascular disease

1.3.4.1 Women with a history of venous thromboembolism (VTE) or who are at risk of VTE may use LNG-IUS, however an alternative method should be considered if VTE occurs during use. **[GPP]**

Ectopic pregnancy

LNG-IUS versus other contraceptive methods

1.3.4.2 Women should be advised that LNG-IUS prevents ectopic pregnancies. However, in the event of a method failure ectopic pregnancy should be excluded. **[GPP]**

1.3.4.3 Women with a history of previous ectopic pregnancy are at increased risk of future ectopic pregnancies. However, these women should be reassured that the risk of pregnancy, and therefore an ectopic pregnancy, while using the LNG-IUS is extremely low. **[B]**

Pelvic inflammatory disease

1.3.4.4 Women may be informed that the chance of developing PID following LNG-IUS insertion is very low at less than 1% over 1 year. **[B]**

Uterine perforation

LNG-IUS versus other contraceptive methods

1.3.4.5 Women should be reassured that the risk of uterine perforation at the time of LNG-IUS insertion is extremely low at approximately 1 in 1000 over 5 years. **[C]**

1.3.5 Return to fertility

1.3.5.1 Women should be informed that return to fertility after removal of LNG-IUS is no different from that of users of the copper IUD, and appears to equate to the UK background fertility rate at 1 year. **[B]**

1.3.6 Details of method use

Assessment prior to fitting

1.3.6.1 A healthcare worker fitting an LNG-IUS should have reasonably excluded relevant genital tract (cervical or pelvic) infection (chlamydia, gonorrhoea and PID) by assessing sexual history, clinical examination and if indicated, by appropriate laboratory tests. **[GPP]**

1.3.6.2 Women with identified risks associated with uterine or systemic infection should have investigation, appropriate prophylaxis or treatment instigated prior to the insertion of LNG-IUS. **[GPP]**

1.3.7 Specific groups

Women who are breastfeeding

1.3.7.1 Women should be informed that LNG-IUS can be safely used by breast-feeding mothers. **[GPP]**

Medical conditions and contraindications

Epilepsy

1.3.7.2 Emergency drugs including anticonvulsant medication should be available at the time of fitting an IUS in a woman known to be epileptic because there may be an increased risk of a fit at the time of cervical dilation. **[GPP]**

Sexually transmitted infections and HIV/AIDS

1.3.7.3 The LNG-IUS is a safe and effective method of contraception for women who are HIV positive or have AIDS. **[GPP]**

Drug interactions

Antibiotics

1.3.7.4 Women and healthcare professionals should be made aware that there is no evidence of reduced effectiveness of LNG-IUS when taking any other medication. **[GPP]**

1.4 Progestogen only injectable contraceptives (POICs)

1.4.1 Effectiveness

DMPA versus other contraceptive methods

1.4.1.1 Women should be advised that POICs have very low pregnancy rates, no higher than 4 in 1000 at 2 years. DMPA (depot medroxyprogesterone acetate) pregnancy rates are lower than NET-EN (norethisterone enanthate). **[C]**

1.4.2 Discontinuation and reasons for discontinuation

DMPA versus other contraceptive methods

1.4.2.1 Women should be informed that with DMPA an altered bleeding pattern is a common reason for discontinuation of use. **[C]**

1.4.2.2 Clinicians should know that as many as half of the women using DMPA discontinue by 1 year. **[C]**

1.4.3 Adverse effects

Bleeding problems

Management of bleeding problems

1.4.3.1 Women should be informed that amenorrhoea is a common side effect of POICs:

- it is more likely with DMPA than NET-EN
- it is more likely as time goes by
- it is not harmful. **[C]**

1.4.4 Common symptoms and complaints

Weight change

DMPA versus other contraceptive methods

1.4.4.1 Women should be advised that DMPA use may be associated with an increase of 2 to 3 kg in weight over 1 year. **[C]**

Altered mood and libido

1.4.4.2 Women should be advised that the use of DMPA is not associated with depression. **[C]**

Acne

1.4.4.3 Women should be advised that DMPA use is not associated with acne. **[C]**

Headache and migraine

1.4.4.4 Women should be advised that the use of DMPA is not associated with headaches. **[C]**

1.4.5 Risks

Cardiovascular disease

DMPA versus other contraceptive methods

1.4.5.1 Clinicians should know that DMPA, and probably NET-EN, are safer than oestrogen-containing contraceptives for women who have arterial or venous risk factors. **[GPP]**

Bone mineral density

Management of oestrogen deficiency induced by DMPA

1.4.5.2 All women should be advised that the use of DMPA is associated with a small loss of bone mineral density perhaps not all of which is recovered when the method is stopped. **[B]**

1.4.5.3 There is no evidence that the use of DMPA increases the risk of fracture. **[B]**

1.4.5.4 All women who wish to continue DMPA beyond 2 years should be appropriately informed and supported in their choice. **[GPP]**

Women who become pregnant while using DMPA

1.4.5.5 If pregnancy occurs during the use of DMPA there is no evidence of harm to the fetus. **[GPP]**

1.4.6 Return to fertility

DMPA versus other contraceptive methods

1.4.6.1 Women should be told that there is likely to be a delay of up to 1 year in the return of fertility after discontinuation of POICs. **[C]**

1.4.6.2 Women stopping POICs but not wishing to conceive should be advised to use a different method of contraception immediately. **[GPP]**

1.4.7 Details of method use

Time of first injection

1.4.7.1 POICs may be started up to and including the fifth day of the menstrual cycle. No additional contraceptive protection is needed. POICs may be given at any other time in the cycle if it is reasonably certain that the woman is not pregnant. Additional contraception should be used for the first 7 days after injection. **[GPP]**

Management of delayed injections

1.4.7.2 Repeat injections of DMPA should be given every 12 weeks and for Noristerat every 8 weeks. **[B]**

1.4.7.3 Women attending up to 2 weeks late may be given either injection if it is reasonably sure that they are not pregnant. **[GPP]**

Post-abortion

1.4.7.4 DMPA and NET-EN may be given immediately following abortion (spontaneous or induced). **[GPP]**

1.4.8 Specific groups

Age

Women aged over 35 years

1.4.8.1 Caution should be used in recommending DMPA to adolescents and women aged over 35 but in general the benefits outweigh the risks. **[GPP]**

Women with body mass index over 30

1.4.8.2 Women with a body mass index over 30 can safely use DMPA and NET-EN. **[GPP]**

Women who are breastfeeding

1.4.8.3 Breastfeeding women may be advised that they can use POICs before the sixth week after childbirth if other methods are unacceptable. **[C]**

1.4.9 Medical conditions and contraindications

Epilepsy

1.4.9.1 In women with epilepsy requiring contraception the use of DMPA may be associated with a reduction in the frequency of seizures. **[GPP]**

Sexually transmitted infections and HIV/AIDS

1.4.9.2 There is no evidence to suggest a causal relationship between the use of DMPA and an increased risk of STI (sexually transmitted infections) or HIV acquisition. Women at increased risk of sexually transmitted infection (STI) including HIV may use DMPA and NET-EN. POICs do not protect against STI/HIV and if there is a risk, the correct and consistent use of condoms in addition to the POIC is recommended. **[GPP]**

1.4.10 Drug interactions

1.4.10.1 It is not considered necessary to avoid the use of POICs in those taking liver enzyme-inducing medication or to reduce the injection interval. **[GPP]**

1.5 Progestogen only subdermal implants (POSDIs)

1.5.1 Effectiveness

Implants versus other contraceptive methods

1.5.1.1 Women should be advised that subdermal implants have very low pregnancy rates (less than 1 in 1000). **[B]**

1.5.2 Discontinuation and reasons for discontinuation

Implant versus other contraceptive methods

1.5.2.1 Women should be aware that up to one third of women will discontinue Implanon within 2 years because of irregular bleeding. Less than 1 in 10 women will discontinue for other reasons including hormonal effects. **[C]**

1.5.3 Adverse effects

Bleeding problems

Implant versus other contraceptive methods

1.5.3.1 Women should be advised that it is highly likely that their bleeding pattern will change while using Implanon. **[C]**

1.5.3.2 One in five women will have no bleeding while almost half will have irregular or prolonged bleeding with Implanon use. Women should be advised that bleeding patterns are unlikely to become more regular over time. **[C]**

1.5.3.3 Women should be advised that dysmenorrhoea may improve during Implanon use. **[C]**

Management of bleeding problems

1.5.3.4 Clinicians should be advised that non-hormonal treatment with mefenamic acid or hormonal treatment with ethinylestradiol is moderately effective in stopping irregular bleeding during implant use. **[B]**

1.5.4 Common symptoms and complaints

Weight change

Implants versus other contraceptive methods

1.5.4.1 Women should be informed that the use of Implanon is not associated with a significant change in weight. **[C]**

Altered mood

1.5.4.2 Women should be informed that the use of Implanon is not associated with significant adverse mood changes. **[C]**

Altered libido

1.5.4.3 Women should be reassured that Implanon use is not associated with a change in libido. **[C]**

Headache

Implants versus other contraceptive methods

1.5.4.4 Women should be reassured that there is no evidence that headaches will be increased by the use of Implanon. **[C]**

1.5.5 Risks

Cardiovascular disease

Implants versus other contraceptive methods

1.5.5.1 Subdermal implants are medically safe for women to use if there is a contraindication to oestrogen. **[C]**

Bone mineral density

Implanon versus other contraceptive methods

1.5.5.2 Women should be informed that there is no evidence for a clinically significant effect of Implanon on bone mineral density. **[C]**

Ectopic pregnancy

1.5.5.3 Women should be informed that the risk of ectopic pregnancy while using Implanon is theoretically extremely low, and less than that of women not using contraception. **[C]**

Women who become pregnant while using implants

1.5.5.4 Providers and women should be reassured that there is no evidence for a teratogenic effect of Implanon. Nevertheless, should pregnancy occur and be continued, the implant should be removed. **[GPP]**

1.5.6 Return to fertility

Implants versus other contraceptive methods

1.5.6.1 The use of contraceptive implants does not impair fertility on discontinuation. **[C]**

1.5.7 Details of method use

Insertion and removal

1.5.7.1 Subdermal implants should be inserted and removed only by health professionals trained in the procedures. **[GPP]**

1.5.7.2 Implants may be inserted at any time if it is reasonably certain that the woman is not pregnant. If the woman is amenorrhoeic or it has been more than 5 days since menstrual bleeding started, additional barrier contraception should be advised for 7 days following insertion. **[GPP]**

1.5.7.3 Women may be informed that Implanon insertion and removal both cause some discomfort and bruising but that technical problems are unusual (less than 1 in 100). **[C]**

1.5.8 Specific groups

Age

Implants vs other contraceptive methods

1.5.8.1 Women and adolescents should be informed that there is no evidence that effectiveness or adverse effects of implants vary with the age of the user. **[C]**

1.5.8.2 Providers should be aware that pregnancy rates are lower among adolescents using implants compared with those using oral contraception or condoms. **[C]**

Women with body mass index over 30

1.5.8.3 Women should be reassured that, as potential users of Implanon, there is no evidence for a higher rate of pregnancy among women weighing over 70kg. **[GPP]**

Women who are breastfeeding

1.5.8.4 Subdermal implants can safely be used by women who are breastfeeding and may be inserted at any time post partum if there has been no risk of pregnancy. **[GPP]**

1.5.9 Medical conditions and contraindications

Diabetes

1.5.9.1 Implanon is not contraindicated for women with diabetes. **[C]**

1.5.10 Drug interactions

1.5.10.1 Implanon is not recommended as the sole method of contraception for women concurrently taking enzyme-inducing drugs. **[GPP]**

1.5.11 Follow-up

1.5.11.1 No routine follow-up after implant insertion is required. **[GPP]**

2 Notes on the scope of the guidance

All NICE guidelines are developed in accordance with a scope document that defines what the guideline will and will not cover. The scope of this guideline was established, after a period of consultation, at the start of the guideline development process; it is available from www.nice.org.uk/NICEtoadddetails.

Long acting reversible contraception (LARC) is defined in this guideline as methods that require administration less than once per cycle or month.

The guideline does not include any contraception for men because there are currently no long-acting reversible methods. The guideline does not cover methods of contraception that are intended to result in permanent sterilisation. Contraceptive methods that are related to coitus or that require frequent (more than once per cycle [month] for women) repeat administration (for example, the combined oral contraceptive pill or progesterone-only pills) are also not included. Postcoital or emergency contraceptive methods (including coil insertion for that use) are also not covered. The use of these technologies for non-contraceptive reasons (such as heavy menstrual bleeding or hormone replacement therapy) are outside the scope of this guideline.

This guideline is of relevance to those who work in or use the National Health Service in England and Wales, in particular: the guideline will cover the necessary elements of clinical care for provision of LARC methods in general practice, community contraceptive clinics, sexual health clinics and hospital services.

3 Implementation in the NHS

3.1 Resource implications

Local health communities should review their existing practice for LARC against this guideline. The review should consider the resources required to implement the recommendations set out in Section 1, the people and processes involved, and the timeline over which full implementation is envisaged. It is in the interests of patients that the implementation is as rapid as possible.

Relevant local clinical guidelines, care pathways and protocols should be reviewed in the light of this guidance and revised accordingly.

Information on the cost impact of this guideline in England is available on the NICE website and includes a template that local communities can use (www.nice.org.uk/CGXXXcosttemplate). **[Note: the costing information will be available when the guideline is published.]**

3.2 General

There are no current NHS guidelines covering this topic that are widely used or tailored to cover UK practice. This guideline intends to complement other existing and proposed works of relevance, including *A strategic framework for sexual health in Wales*, the *National strategy for sexual health and HIV*, and the subsequent implementation plan.

3.3 Audit

Suggested audit criteria based on the key priorities for implementation are listed in Appendix D, and can be used to audit practice locally.

4 Research recommendations

The Guideline Development Group has made the following recommendations for research, on the basis of its review of the evidence. The Group regards these recommendations as the most important research areas to improve

NICE guidance and patient care in the future. The Group recommends research in the following areas.

4.1 Typical use effectiveness of all contraceptive methods over time among UK women.

4.2 Continuation rates and patterns of contraceptive method switching among UK women.

4.3 Factors which influence initiation, continuation and effective use of contraception among UK women/couples.

4.4 Effect of non-contraceptive health benefits on uptake and continuation of contraceptive methods and on use of NHS resources.

4.5 Effect of health harms (side effects and risks) on uptake and continuation of contraceptive methods and on use of NHS resources.

5 Other versions of this guideline

The National Institute for Clinical Excellence commissioned the development of this guidance from the National Collaborating Centre for Women's and Children's Health. The Centre established a Guideline Development Group, which reviewed the evidence and developed the recommendations. The members of the Guideline Development Group are listed in Appendix B. Information about the independent Guideline Review Panel is given in Appendix C.

The booklet *The guideline development process – an overview for stakeholders, the public and the NHS* has more information about the Institute's guideline development process. It is available from the Institute's website and copies can also be ordered by telephoning 0870 1555 455 (quote reference N0472).

5.1 Full guideline

The full guideline, *Long-acting reversible contraception: The effective and appropriate use of long-acting reversible contraception*, is published by the National Collaborating Centre for Women's and Children's Health; it is

available from [website details to be added], the NICE website (www.nice.org.uk/CGXXXfullguideline) and the website of the National Library for Health (www.nlh.nhs.uk). **[Note: these details will apply to the published full guideline.]**

5.2 Quick reference guide

A quick reference guide for health professionals is also available from the NICE website (www.nice.org/CGXXXquickrefguide) or from the NHS Response Line (telephone 0870 1555 455; quote reference number N0XXX). **[Note: these details will apply when the guideline is published.]**

5.3 Information for the public

A version of this guideline for women requiring long-acting reversible contraception and their carers, and for the public, is available from the NICE website (www.nice.org.uk/CGXXXpublicinfo) or from the NHS Response Line (0870 1555 455); quote reference number N0xxx for an English version and N0XXX for an English and Welsh version). **[Note: these details will apply when the guideline is published.]**

6 Related NICE guidance

There is no related NICE guidance.

7 Review date

The process of reviewing the evidence is expected to begin 4 years after the date of issue of this guideline. Reviewing may begin before this if significant evidence that affects the guideline recommendations is identified. The updated guideline will be available within 2 years of the start of the review process.

Appendix A: Grading scheme

The classification of recommendations and the levels of evidence for intervention studies used in this guideline are adapted from the Scottish Intercollegiate Guidelines Network (*SIGN 50: a guideline developers' handbook*), and summarised in the tables below and on page XX).

Classification of recommendations on interventions

Recommendation grade	Evidence
A	• At least one meta-analysis, systematic review, or randomised controlled trial (RCT) that is rated as 1^{++}, and is directly applicable to the target population, **or** • A systematic review of RCTs or a body of evidence that consists principally of studies rated as 1+, is directly applicable to the target population and demonstrates overall consistency of results, **or** • Evidence drawn from a NICE technology appraisal
B	• A body of evidence that includes studies rated as 2^{++}, is directly applicable to the target population and demonstrates overall consistency of results, **or** • Extrapolated evidence from studies rated as 1^{++} or 1^{+}
C	• A body of evidence that includes studies rated as 2^{+}, is directly applicable to the target population and demonstrates overall consistency of results, **or** • Extrapolated evidence from studies rated as 2^{++}
D	• Evidence level 3 or 4, **or** • Extrapolated evidence from studies rated as 2^{+}, **or** • Formal consensus
D(GPP)	• A good practice point (GPP) is a recommendation for best practice based on the experience of the Guideline Development Group

Levels of evidence for intervention studies

Level of evidence	Type of evidence
1^{++}	• High-quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias
1^{+}	• Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
1^{-}	• Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias
2^{++}	• High-quality systematic reviews of case–control or cohort studies • High-quality case–control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2^{+}	• Well-conducted case–control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2^{-}	• Case–control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal
3	• Non-analytical studies (for example, case reports, case series)
4	• Expert opinion, formal consensus

Appendix B: The Guideline Development Group

[NICE to add before second consultation]

Appendix C: The Guideline Review Panel

The Guideline Review Panel is an independent panel that oversees the development of the guideline and takes responsibility for monitoring its quality. The Panel includes experts on guideline methodology, health professionals and people with experience of the issues affecting patients and carers. The members of the Guideline Review Panel were as follows.

[NICE to add before second consultation]

[Name; style = Unnumbered bold heading]
[job title and location; style = NICE normal]

Appendix D: Technical detail on the criteria for audit

Possible objectives for an audit

To ensure that women are receiving the correct information and advice, and have access to LARC services.

People that could be included in an audit and time period for selection

- Healthcare professionals responsible for delivery of information and advice about LARC.
- Health professionals responsible for providing LARC services.

Measures that could be used as a basis for an audit

The audit criteria below are based on recommendations selected as the key priorities for implementation.

Criterion	Exception	Definition of terms
1. Women requiring contraception should be provided with information and offered a choice of all methods, including long-acting reversible contraception (LARC) methods. [GPP]		
2. Women considering a LARC method should receive both verbal and written information that will enable them to choose and use the method effectively. This information should take into consideration their individual needs and should include: • contraceptive efficacy • risks and possible side effects • non-contraceptive benefits • the procedure for initiation and removal/discontinuation • duration of use • when to seek help while using the method.[GPP]		

3. All healthcare professionals advising women about contraceptive choices should be competent to: • assist women to consider and compare the risks and benefits of all methods relevant to their individual needs • manage common side effects [GPP]		
4. All healthcare professionals providing contraceptive care should ensure that they have an agreed mechanism in place for referring women for LARC if they do not provide LARC within their own practice/service. [GPP]		
5. All healthcare professionals providing intrauterine or subdermal contraceptives should receive training to develop and maintain the relevant skills to provide these methods. [GPP]		Guidance for training for doctors and nurses can be obtained from the FFPRHC(Faculty of Family Planning and Reproductive Health Care and RCN (Royal College of Nursing) respectively

Appendix E: The LARC selection algorithm

[Please note that the algorithms are being published as a separate file for consultation]