



*National Institute for  
Health and Clinical Excellence*

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# Long-acting reversible contraception

Clinical Guideline 30

Developed by the National Collaborating Centre for Women's and Children's Health

## **Clinical Guideline 30 Long-acting reversible contraception**

### **Ordering information**

You can download the following documents from [www.nice.org.uk/CG030](http://www.nice.org.uk/CG030)

- The NICE guideline (this document) – all the recommendations.
- A quick reference guide, which has been distributed to health professionals working in the NHS in England.
- Information for women considering or using long-acting reversible contraception, their families and carers, and the public.
- The full guideline – all the recommendations, details of how they were developed, and summaries of the evidence on which they were based.

For printed copies of the quick reference guide or information for the public, phone the NHS Response Line on 0870 1555 455 and quote:

- N0915 (quick reference guide)
- N0916 (information for the public).

### **This guidance is written in the following context**

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Health professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of health professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

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## Introduction

It is estimated that about 30% of pregnancies are unplanned. The effectiveness of the barrier method and oral contraceptive pills depends on their correct and consistent use. By contrast, the effectiveness of long-acting reversible contraceptive (LARC) methods does not depend on daily concordance. The uptake of LARC is low in Great Britain, at around 8% of women aged 16–49 in 2003–04, compared with 25% for the oral contraceptive pill and 23% for male condoms.

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 healthcare professionals need better guidance and training so that they can help women make an informed choice. Health providers and commissioners also need a clear understanding of the relative cost effectiveness of LARC compared with other methods of fertility control. Enabling women to make an informed choice about LARC and addressing women's 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
- combined vaginal rings – these are excluded from this guideline because they do not have UK Marketing Authorisation at the time of publication (October 2005).

The guideline offers the best-practice advice for all women of reproductive age who may wish to regulate their fertility by using LARC methods. It covers

specific issues for the use of these methods during the menarche and before the menopause, and by particular groups, including women who have HIV, learning disabilities or physical disabilities, or are younger than 16 years.

## **Woman-centred care**

This guideline offers the best-practice advice on the provision of information 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 a 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](http://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.

## **Key priorities for implementation**

The following recommendations have been identified as priorities for implementation.

### **Contraceptive provision**

- Women requiring contraception should be given information about and offered a choice of all methods, including long-acting reversible contraception (LARC) methods.
- Contraceptive service providers should be aware that:
  - all currently available LARC methods (intrauterine devices, the intrauterine system, injectable contraceptives and implants) are more cost effective than the combined oral contraceptive pill even at 1 year of use
  - intrauterine devices, the intrauterine system and implants are more cost effective than the injectable contraceptives
  - increasing the uptake of LARC methods will reduce the numbers of unintended pregnancies.

### **Counselling and provision of information**

- Women considering LARC methods should receive detailed information
  - both verbal and written – that will enable them to choose a method and use it effectively. This information should take into consideration their individual needs and should include:
    - contraceptive efficacy
    - duration of use
    - risks and possible side effects
    - non-contraceptive benefits
    - the procedure for initiation and removal/discontinuation
    - when to seek help while using the method.

## **Training of healthcare professionals in contraceptive care**

- Healthcare professionals advising women about contraceptive choices should be competent to:
  - help women to consider and compare the risks and benefits of all methods relevant to their individual needs
  - manage common side effects and problems.
- Contraceptive service providers who do not provide LARC within their own practice or service should have an agreed mechanism in place for referring women for LARC.
- 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 Contraception and principles of care***

#### **1.1.1 Contraceptive provision**

- 1.1.1.1 Women requiring contraception should be given information about and offered a choice of all methods, including long-acting reversible contraception (LARC) methods. **D(GPP)**
- 1.1.1.2 Women should be provided with the method of contraception that is most acceptable to them, provided it is not contraindicated. **D(GPP)**
- 1.1.1.3 Contraceptive service providers should be aware that: **C**
- all currently available LARC methods (intrauterine devices [IUDs], the intrauterine system [IUS], injectable contraceptives and implants) are more cost effective than the combined oral contraceptive pill even at 1 year of use
  - IUDs, the IUS and implants are more cost effective than the injectable contraceptives
  - increasing the uptake of LARC methods will reduce the numbers of unintended pregnancies.

#### **1.1.2 Provision of information and informed choice**

- 1.1.2.1 Women considering LARC methods should receive detailed information – both verbal and written – that will enable them to choose a method and use it effectively. This information should take into consideration their individual needs and should include: **D(GPP)**
- contraceptive efficacy
  - duration of use

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

Appendix E summarises information about LARC methods that should be discussed with women.

- 1.1.2.2 Counselling about contraception should be sensitive to cultural differences and religious beliefs. **D(GPP)**
- 1.1.2.3 Healthcare professionals should have access to trained interpreters for women who are not English speaking, and to advocates for women with sensory impairments or learning disabilities. **D(GPP)**

### 1.1.3 Contraceptive prescribing

- 1.1.3.1 A medical history – including relevant family, menstrual, contraceptive and sexual history – should be taken as part of the routine assessment of medical eligibility for individual contraceptive methods. **D(GPP)**
- 1.1.3.2 Healthcare professionals helping women to make contraceptive choices should be familiar with nationally agreed guidance on medical eligibility and recommendations for contraceptive use. **D(GPP)**
- 1.1.3.3 When considering choice of LARC methods for specific groups of women and women with medical conditions, healthcare professionals should be aware of and discuss with each woman any issues that might affect her choice (see Sections 1.2–5 and Appendix E). **D(GPP)**
- 1.1.3.4 Healthcare professionals should exclude pregnancy by taking menstrual and sexual history before initiating any contraceptive methods. **D(GPP)**

- 1.1.3.5 Healthcare professionals should supply an interim method of contraception at first appointment if required. **D(GPP)**
- 1.1.3.6 Healthcare professionals should ensure that informed consent is obtained from the woman whenever any method of LARC is being used outside the terms of the UK Marketing Authorisation. This should be discussed and documented in the notes. **D(GPP)**
- 1.1.3.7 Women who have a current venous thromboembolism (VTE) and need hormonal contraception while having treatment for the VTE should be referred to a specialist in contraceptive care. **D(GPP)**

#### **1.1.4 Contraception and sexually transmitted infection**

- 1.1.4.1 Healthcare professionals providing contraceptive advice should promote safer sex. **D(GPP)**
- 1.1.4.2 Healthcare professionals providing contraceptive advice should be able to assess risk for sexually transmitted infections (STIs) and advise testing when appropriate. **D(GPP)**
- 1.1.4.3 Healthcare professionals should be able to provide information about local services for STI screening, investigation and treatment. **D(GPP)**

#### **1.1.5 Contraception for special groups**

- 1.1.5.1 Healthcare professionals should be aware of the law relating to the provision of advice and contraception for young people and for people with learning disabilities. Child protection issues and the Fraser guidelines should be considered when providing contraception for women younger than 16 years<sup>1</sup>. **D(GPP)**

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<sup>1</sup> See the Department of Health's *Best practice guidance for doctors and other healthcare professionals on the provision of advice and treatment to young people under 16 on contraception, sexual and reproductive health* (July 2004). Available from [www.dh.gov.uk](http://www.dh.gov.uk)

- 1.1.5.2 Women with learning and/or physical disabilities should be supported in making their own decisions about contraception. **D(GPP)**
- 1.1.5.3 Contraception should be seen in terms of the needs of the individual rather than in terms of relieving the anxieties of carers or relatives. **D(GPP)**
- 1.1.5.4 When a woman with a learning disability is unable to understand and take responsibility for decisions about contraception, carers and other involved parties should meet to address issues around the woman's contraceptive need and to establish a care plan. **D(GPP)**

### **1.1.6 Training of healthcare professionals in contraceptive care**

- 1.1.6.1 Healthcare professionals advising women about contraceptive choices should be competent to: **D(GPP)**
- help women to consider and compare the risks and benefits of all methods relevant to their individual needs
  - manage common side effects and problems.
- 1.1.6.2 Contraceptive service providers who do not provide LARC in their practice or service should have an agreed mechanism in place for referring women for LARC. **D(GPP)**
- 1.1.6.3 Healthcare professionals providing intrauterine or subdermal contraceptives should receive training to develop and maintain the relevant skills to provide these methods. **D(GPP)**
- 1.1.6.4 IUDs and the IUS should only be fitted by trained personnel with continuing experience of inserting at least one IUD or one IUS a month. **C**
- 1.1.6.5 Contraceptive implants should be inserted and removed only by healthcare professionals trained in the procedure. **D(GPP)**

## **1.2 Copper intrauterine devices**

Appendix E lists key features of IUDs to discuss with women, and Appendix F summarises issues affecting choice for specific groups of women and women with medical conditions.

### **1.2.1 Decision making**

1.2.1.1 Women should be given the following information.

#### *Contraceptive efficacy*

- IUDs act by preventing fertilisation and inhibiting implantation. **C**
- The licensed duration of use for IUDs containing 380 mm<sup>2</sup> copper ranges from 5 to 10 years, depending on the type of device. **D**
- The pregnancy rate associated with the use of IUDs containing 380 mm<sup>2</sup> copper is very low (fewer than 20 in 1000 over 5 years). **C**
- There is no evidence of a delay in the return of fertility following removal or expulsion of IUDs. **C**

#### *Effect on periods*

- Heavier bleeding and/or dysmenorrhoea are likely with IUD use. **C**

#### *Risks and possible side effects*

- Up to 50% of women stop using IUDs within 5 years; the most common reasons are unacceptable vaginal bleeding and pain. **C**
- There is no evidence that IUD use affects weight. **C**
- Any changes in mood and libido are similar whether using IUDs or the IUS, and the changes are small. **C**
- The risk of uterine perforation at the time of IUD insertion is very low (less than 1 in 1000). **D**

- The risk of developing pelvic inflammatory disease following IUD insertion is very low (less than 1 in 100) in women who are at low risk of STIs. **C**
- IUDs may be expelled but this occurs in fewer than 1 in 20 women in 5 years. **C**
- The risk of ectopic pregnancy when using IUDs is lower than when using no contraception. **D**
- The overall risk of ectopic pregnancy when using the IUD is very low, at about 1 in 1000 in 5 years. **C**
- If a woman becomes pregnant with the IUD in situ, the risk of ectopic pregnancy is about 1 in 20, and she should seek advice to exclude ectopic pregnancy. **C**

### 1.2.2 Other issues to consider before fitting an IUD

- 1.2.2.1 Women who are aged 40 years or older at the time of IUD insertion may retain the device until they no longer require contraception, even if this is beyond the duration of the UK Marketing Authorisation<sup>2</sup>. **D**
- 1.2.2.2 Contraceptive care providers should be aware that the risk of perforation is related to the skill of the healthcare professional inserting the IUD. **D(GPP)**
- 1.2.2.3 Testing for the following infections should be undertaken before IUD insertion: **D(GPP)**
- *Chlamydia trachomatis* in women at risk of STIs
  - *Neisseria gonorrhoeae* in women from areas where the disease is prevalent and who are at risk of STIs
  - any STIs in women who request it.

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<sup>2</sup> Check the Summary of Product Characteristics of individual devices for current licensed indications. Informed consent is needed when using outside the licensed indications. This should be discussed and documented in the notes.

- 1.2.2.4 If testing for STIs is not possible, or has not been completed, prophylactic antibiotics should be given before IUD insertion in women at increased risk of STIs. **D(GPP)**
- 1.2.2.5 Women with identified risks associated with uterine or systemic infection should have investigations, and appropriate prophylaxis or treatment before insertion of an IUD. **D(GPP)**

### **Specific groups, medical conditions and contraindications**

- 1.2.2.6 IUDs may be used by adolescents, but STI risk should be considered where relevant. **D(GPP)**
- 1.2.2.7 Healthcare professionals should be aware that:
- IUD use is not contraindicated in nulliparous women of any age **D(GPP)**
  - women of all ages may use IUDs **D(GPP)**
  - IUDs can safely be used by women who are breastfeeding. **C**
- 1.2.2.8 Healthcare professionals should be aware that: **D(GPP)**
- IUD use is not contraindicated in women with diabetes
  - IUD use is a safe and effective method of contraception for women who are HIV positive or have AIDS (safer sex using condoms should be encouraged in this group).

### **1.2.3 Practical details of fitting IUDs**

- 1.2.3.1 The most effective IUDs contain at least 380 mm<sup>2</sup> of copper and have banded copper on the arms. This, together with the licensed duration of use, should be considered when deciding which IUD to use. **B**

- 1.2.3.2 Provided that it is reasonably certain that the woman is not pregnant, IUDs may be inserted: **D(GPP)**
- at any time during the menstrual cycle
  - immediately after first- or second-trimester abortion, or at any time thereafter
  - from 4 weeks post-partum, irrespective of the mode of delivery.
- 1.2.3.3 Emergency drugs including anti-epileptic medication should be available at the time of IUD insertion in a woman with epilepsy because there may be an increased risk of a seizure at the time of cervical dilation. **D(GPP)**

#### **Advice for women at time of fitting**

- 1.2.3.4 Women should be informed: **D(GPP)**
- about symptoms of uterine perforation or infection that would warrant an early review of IUD use
  - that insertion of an IUD may cause pain and discomfort for a few hours and light bleeding for a few days, and they should be informed about appropriate pain relief
  - about how to check for the presence of IUD threads and encouraged to do this regularly with the aim of recognising expulsion.

#### **1.2.4 Follow-up and managing problems**

- 1.2.4.1 A follow-up visit should be recommended after the first menses, or 3–6 weeks after insertion, to exclude infection, perforation or expulsion. Thereafter, a woman should be strongly encouraged to return at any time to discuss problems, if she wants to change her method of contraception, or if it is time to have the IUD removed. **D(GPP)**

- 1.2.4.2 Heavier and/or prolonged bleeding associated with IUD use can be treated with non-steroidal anti-inflammatory drugs and tranexamic acid. **B**
- 1.2.4.3 Women who find heavy bleeding associated with IUD use unacceptable may consider changing to a levonorgestrel intrauterine system (LNG-IUS). **D(GPP)**
- 1.2.4.4 The presence of *Actinomyces*-like organisms on a cervical smear in a woman with a current IUD requires an assessment to exclude pelvic infection. Routine removal is not indicated in women without signs of pelvic infection. **D(GPP)**
- 1.2.4.5 Women who have an intrauterine pregnancy with an IUD in situ should be advised to have the IUD removed before 12 completed weeks' gestation, whether or not they intend to continue the pregnancy. **D(GPP)**

### **1.3 Intrauterine system**

Appendix E lists key features of the IUS to discuss with women, and Appendix F summarises issues affecting choice for specific groups of women and women with medical conditions.

#### **1.3.1 Decision making**

- 1.3.1.1 Women should be given the following information.

##### *Contraceptive efficacy*

- The IUS may act predominantly by preventing implantation and sometimes by preventing fertilisation. **D(GPP)**
- The pregnancy rate associated with the use of the IUS is very low (fewer than 10 in 1000 over 5 years). **C**
- The licensed duration of use for the IUS is 5 years for contraception. **D**
- There is no evidence of a delay in the return of fertility following removal or expulsion of the IUS. **C**

### *Effects on periods*

- Irregular bleeding and spotting are common during the first 6 months following IUS insertion. **C**
- Oligomenorrhoea or amenorrhoea is likely by the end of the first year of IUS use. **C**

### *Risks and possible side effects*

- Up to 60% of women stop using the IUS within 5 years. The most common reasons are unacceptable vaginal bleeding and pain; a less common reason is hormonal (non-bleeding) problems. **C**
- There is no evidence that IUS use causes weight gain. **C**
- Any changes in mood and libido are similar whether using the IUS or IUDs, and the changes are small. **C**
- There may be an increased likelihood of developing acne as a result of absorption of progestogen, but few women discontinue IUS use for this reason. **C**
- The risk of uterine perforation at the time of IUS insertion is very low (less than 1 in 1000). **D**
- The risk of developing pelvic inflammatory disease following IUS insertion is very low (less than 1 in 100) in women who are at low risk of STIs. **C**
- The IUS may be expelled, but this occurs in fewer than 1 in 20 women in 5 years. **C**
- The risk of ectopic pregnancy when using the IUS is lower than when using no contraception. **D**
- The overall risk of ectopic pregnancy when using the IUS is very low, at about 1 in 1000 in 5 years. **D(GPP)**
- If a woman becomes pregnant with the IUS in situ, the risk of ectopic pregnancy is about 1 in 20, and she should seek advice to exclude ectopic pregnancy. **D(GPP)**

### 1.3.2 Other issues to consider before fitting an IUS

- 1.3.2.1 Women who are aged 45 years or older at the time of IUS insertion and who are amenorrhoeic may retain the device until they no longer require contraception, even if this is beyond the duration of UK Marketing Authorisation<sup>3</sup>. **D**
- 1.3.2.2 Contraceptive care providers should be aware that the risk of perforation is related to the skill of the healthcare professional inserting the IUS. **D(GPP)**
- 1.3.2.3 Testing for the following infections should be undertaken before IUS insertion: **D(GPP)**
- *Chlamydia trachomatis* in women at risk of STIs
  - *Neisseria gonorrhoeae* in women from areas where the disease is prevalent and who are at risk of STIs
  - any STIs in women who request it.
- 1.3.2.4 If testing for STIs is not possible, or has not been completed, prophylactic antibiotics should be given before IUS insertion in women at increased risks of STIs. **D(GPP)**
- 1.3.2.5 Women with identified risks associated with uterine or systemic infection should have investigations, and appropriate prophylaxis or treatment before insertion of the IUS. **D(GPP)**

#### Specific groups, medical conditions and contraindications

- 1.3.2.6 The IUS may be used by adolescents, but STI risk should be considered where appropriate. **D(GPP)**

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<sup>3</sup> Check the Summary of Product Characteristics for current licensed indications. Informed consent is needed when using outside the licensed indications. This should be discussed and documented in the notes.

- 1.3.2.7 Healthcare professionals should be aware that:
- IUS use is not contraindicated in nulliparous women of any age **D(GPP)**
  - women of all ages may use the IUS. **D(GPP)**
  - the IUS can safely be used by women who are breastfeeding. **D**
- 1.3.2.8 Healthcare professionals should be aware that:
- there is no evidence that the effectiveness of the IUS is reduced when taking any other medication **D**
  - IUS use is not contraindicated in women with diabetes **D(GPP)**
  - IUS is a safe and effective method of contraception for women who are HIV positive or have AIDS (safer sex using condoms should be encouraged in this group) **D(GPP)**
  - all progestogen-only methods, including the IUS, may be used by women who have migraine with or without aura **D(GPP)**
  - women with a history of VTE may use the IUS **D(GPP)**
  - IUS is medically safe for women to use if oestrogen is contraindicated. **D(GPP)**

### 1.3.3 Practical details of fitting the IUS

- 1.3.3.1 Provided that it is reasonably certain that the woman is not pregnant, the IUS may be inserted: **D(GPP)**
- at any time during the menstrual cycle (but if the woman is amenorrhoeic or it has been more than 5 days since menstrual bleeding started, additional barrier contraception should be used for the first 7 days after insertion)
  - immediately after first- or second-trimester abortion or at any time thereafter
  - from 4 weeks post-partum, irrespective of the mode of delivery<sup>4</sup>.
- 1.3.3.2 Emergency drugs including anti-epileptic medication should be available at the time of IUS insertion in a woman with epilepsy because there may be an increased risk of a seizure at the time of cervical dilation. **D(GPP)**

#### Advice for women at time of fitting

- 1.3.3.3 Women should be informed:
- about symptoms of uterine perforation or infection that would warrant an early review of IUS use **D(GPP)**
  - that insertion of an IUS may cause pain and discomfort for a few hours and light bleeding for a few days, and they should be informed about appropriate pain relief **D(GPP)**
  - about how to check for the presence of IUS threads, and encouraged to do this regularly with the aim of recognising expulsion. **D(GPP)**

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<sup>4</sup> At the time of publication (October 2005), use before 6 weeks post-partum is outside the UK Marketing Authorisation for the IUS. Check the Summary of Product Characteristics for current licensed indications. Informed consent is needed when using outside the licensed indications. This should be discussed and documented in the notes.

### 1.3.4 Follow-up and managing problems

- 1.3.4.1 A follow-up visit should be recommended after the first menses, or 3–6 weeks after insertion, to exclude infection, perforation or expulsion. Thereafter, a woman should be strongly encouraged to return at any time to discuss problems, if she wants to change her method of contraception, or if it is time to have the IUS removed. **D(GPP)**
- 1.3.4.2 The presence of *Actinomyces*-like organisms on a cervical smear in a woman with a current IUS requires an assessment to exclude pelvic infection. Routine removal is not indicated in women without signs of pelvic infection. **D(GPP)**
- 1.3.4.3 Women with an intrauterine pregnancy with an IUS in situ should be advised to have the IUS removed before 12 completed weeks' gestation whether or not they intend to continue the pregnancy. **D(GPP)**

## 1.4 Progestogen-only injectable contraceptives

Appendix E lists key features of progestogen-only injectable contraceptives to discuss with women, and Appendix F summarises issues affecting choice for specific groups of women and women with medical conditions.

### 1.4.1 Decision making

- 1.4.1.1 Women should be given the following information.

#### *Contraceptive efficacy*

- Progestogen-only injectable contraceptives act primarily by preventing ovulation. **C**
- The pregnancy rate associated with injectable contraceptives, when given at the recommended intervals, is very low (fewer than 4 in 1000 over 2 years) and the pregnancy rate with Depo medroxyprogesterone acetate (DMPA) is lower than that with norethisterone enantate (NET-EN). **C**

- DMPA should be repeated every 12 weeks and NET-EN every 8 weeks<sup>5</sup>. **C**
- There could be a delay of up to 1 year in the return of fertility after stopping the use of injectable contraceptives. **C**
- If a woman stops using injectable contraceptives but does not wish to conceive, she should start using a different contraceptive method immediately even if amenorrhoea persists. **D(GPP)**

#### *Effects on periods*

- Amenorrhoea is likely during use of injectable contraceptives; this is: **C**
  - more likely with DMPA than NET-EN
  - more likely as time goes by
  - not harmful.
- Up to 50% of women stop using DMPA by 1 year; the most common reason is an altered bleeding pattern, such as persistent bleeding. **C**

#### *Risks and possible side effects*

- DMPA use may be associated with an increase of up to 2–3 kg in weight over 1 year. **C**
- DMPA use is not associated with acne, depression or headaches. **C**
- DMPA use is associated with a small loss of bone mineral density, which is largely recovered when DMPA is discontinued. **B**
- There is no evidence that DMPA use increases the risk of fracture. **B**

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<sup>5</sup> At the time of publication (October 2005), NET-EN is licensed for short-term use (two injections). Check the Summary of Product Characteristics for current licensed indications. Informed consent is needed when using outside the licensed indications. This should be discussed and documented in the notes.

## 1.4.2 Other issues to consider before giving injectable contraceptives

### Specific groups, medical conditions and contraindications

- 1.4.2.1 Because of the possible effect on bone mineral density, care should be taken in recommending DMPA to:
- adolescents, but it may be given if other methods are not suitable or acceptable<sup>6</sup> **D(GPP)**
  - women older than 40 years, but in general the benefits outweigh the risks, and it may be given if other methods are not suitable or acceptable<sup>6</sup>. **D(GPP)**
- 1.4.2.2 Healthcare professionals should be aware that:
- women with a body mass index over 30 can safely use DMPA and NET-EN **D(GPP)**
  - women who are breastfeeding can consider using injectable contraceptives. **C**
- 1.4.2.3 Healthcare professionals should be aware that:
- all progestogen-only methods, including injectable contraceptives, may be used by women who have migraine with or without aura **D(GPP)**
  - DMPA is medically safe for women to use if oestrogen is contraindicated **D(GPP)**
  - injectable contraceptives are not contraindicated in women with diabetes **D(GPP)**
  - DMPA use may be associated with a reduction in the frequency of seizures in women with epilepsy **D(GPP)**
  - there is no evidence that DMPA use increases the risk of STI or HIV acquisition **D(GPP)**

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<sup>6</sup> Refer to CSM advice issued in November 2004. Go to [www.mhra.gov.uk](http://www.mhra.gov.uk) and search for Depo Provera.

- DMPA is a safe and effective method of contraception for women with STIs, including HIV/AIDS (safer sex using condoms should be encouraged in this group) **D(GPP)**
- women taking liver enzyme-inducing medication may use DMPA and the dose interval does not need to be reduced. **D(GPP)**

### 1.4.3 Practical details of giving injectable contraceptives

1.4.3.1 Injectable contraceptives should be given by deep intramuscular injection into the gluteal or deltoid muscle or the lateral thigh. **D(GPP)**

1.4.3.2 Provided that it is reasonably certain that the woman is not pregnant, the use of injectable contraceptives may be started: **D(GPP)**

- up to and including the fifth day of the menstrual cycle without the need for additional contraceptive protection
- at any other time in the menstrual cycle, but additional barrier contraception should be used for the first 7 days after the injection
- immediately after first- or second-trimester abortion, or at any time thereafter
- at any time post-partum.

### 1.4.4 Follow-up and managing problems

1.4.4.1 Women attending up to 2 weeks late for repeat injection of DMPA may be given the injection without the need for additional contraceptives<sup>7</sup>. **D(GPP)**

1.4.4.2 A pattern of persistent bleeding associated with DMPA use can be treated with mefenamic acid or ethinylestradiol. **C**

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<sup>7</sup> At the time of publication (October 2005), this use is outside the UK Marketing Authorisation. Check the Summary of Product Characteristics for current licensed indications. Informed consent is needed when using outside the licensed indications. This should be discussed and documented in the notes.

- 1.4.4.3 Women who wish to continue DMPA use beyond 2 years should have their individual clinical situations reviewed, the balance between the benefits and potential risks discussed, and be supported in their choice of whether or not to continue<sup>8</sup>. **D(GPP)**
- 1.4.4.4 Healthcare professionals should be aware that if pregnancy occurs during DMPA use there is no evidence of congenital malformation to the fetus. **D(GPP)**

## **1.5 Progestogen-only subdermal implants**

Appendix E lists key features of progestogen-only subdermal implants to discuss with women, and Appendix F summarises issues affecting choice for specific groups of women and women with medical conditions.

### **1.5.1 Decision making**

- 1.5.1.1 Women should be given the following information.

#### *Contraceptive efficacy*

- Implanon acts by preventing ovulation. **C**
- The pregnancy rate associated with the use of Implanon is very low (fewer than 1 in 1000 over 3 years). **C**
- Implanon has UK Marketing Authorisation for use for 3 years. **D**
- There is no evidence of a delay in the return of fertility following removal of contraceptive implants. **C**

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<sup>8</sup> Refer to CSM advice issued in November 2004. Go to [www.mhra.gov.uk](http://www.mhra.gov.uk) and search for Depo Provera.

### *Effects on periods*

- Bleeding patterns are likely to change while using Implanon. **C**
- 20% of women will have no bleeding, while almost 50% of women will have infrequent, frequent or prolonged bleeding. **C**
- Bleeding patterns are likely to remain irregular over time. **C**
- Dysmenorrhoea may be reduced during the use of Implanon. **C**

### *Risks and possible side effects*

- Up to 43% of women stop using Implanon within 3 years; 33% because of irregular bleeding, and less than 10% for other reasons including hormonal (non-bleeding) problems. **C**
- Implanon use is not associated with changes in weight, mood, libido, or headaches. **C**
- Implanon use may be associated with acne. **C**

## **1.5.2 Other issues to consider before fitting an implant**

### **Specific groups, medical conditions and contraindications**

1.5.2.1 Healthcare professionals should be aware that:

- there is no evidence that the effectiveness or adverse effects of implants vary with the age of the user **C**
- women over 70 kg can use Implanon as an effective method of contraception **D(GPP)**
- contraceptive implants can safely be used by women who are breastfeeding. **C**

1.5.2.2 Healthcare professionals should be aware that:

- Implanon use is not contraindicated in women with diabetes **D(GPP)**
- there is no evidence that implant use increases the risk of STI or HIV acquisition **D(GPP)**

- contraceptive implants are a safe and effective method of contraception for women with STI, including HIV/AIDS (safer sex using condoms should be encouraged in this group) **D(GPP)**
- all progestogen-only methods, including contraceptive implants, may be used by women who have migraine with or without aura **D(GPP)**
- contraceptive implants are medically safe for women to use if oestrogen is contraindicated **C**
- there is no evidence of an effect of Implanon use on bone mineral density. **C**

1.5.2.3 Implanon is not recommended as a contraceptive method for women taking liver enzyme-inducing drugs. **D**

### 1.5.3 Practical details of fitting implants

- 1.5.3.1 Provided that it is reasonably certain that the woman is not pregnant, Implanon may be inserted: **D(GPP)**
- at any time (but if the woman is amenorrhoeic or it has been more than 5 days since menstrual bleeding started, additional barrier contraception should be used for first 7 days after insertion)
  - immediately after abortion in any trimester
  - at any time post-partum.

#### Advice for women at time of fitting

1.5.3.2 Women should 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**

## 1.5.4 Follow-up and managing problems

- 1.5.4.1 No routine follow-up is needed after implant insertion. However, a woman should be strongly encouraged to return at any time to discuss problems, if she wants to change her method of contraception, or if it is time to have the implant removed. **D(GPP)**
- 1.5.4.2 Irregular bleeding associated with implant use can be treated with mefenamic acid or ethinylestradiol<sup>9</sup>. **B**
- 1.5.4.3 There is no evidence of a teratogenic effect of Implanon use. But if a woman becomes pregnant and continues with the pregnancy, the implant should be removed. **D(GPP)**
- 1.5.4.4 If an Implanon implant cannot be palpated (due to deep insertion, failed insertion or migration) it should be localised by ultrasound investigation before being removed. Deeply inserted implants often need to be removed by an expert. **D(GPP)**

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<sup>9</sup> The recommendation on treating irregular bleeding after insertion of a contraceptive implant has been changed. Although the evidence does show that mifepristone is effective at controlling irregular bleeding associated with implants, it is not licensed for this indication. The revised recommendation reads: 'Irregular bleeding associated with implant use can be treated with mefenamic acid or ethinylestradiol.'

## 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/page.aspx?o=53795](http://www.nice.org.uk/page.aspx?o=53795)

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 or month for women) repeat administration (for example, the combined oral contraceptive pill or progestogen-only pills) are not included. Postcoital or emergency contraceptive methods (including IUD 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) is 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.

Information on the cost impact of this guideline in England will be available on the NICE website from November 2005, and includes a template that local communities can use ([www.nice.org.uk/CG030costtemplate](http://www.nice.org.uk/CG030costtemplate)). A slide set will also be available.

### ***3.2 General***

The Department of Health considers implementation of clinical guidelines to be a developmental standard and this will be monitored by the Healthcare Commission. The implementation of this guideline should form part of the service development plans for each local health community in England and Wales.

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 scarcity of robust evidence to answer important clinical questions on the use of LARC methods by women in the UK has posed great challenges to the developers of this guideline. In the majority of cases, the guideline recommendations were based on extrapolated evidence that is indirect or of poor methodological quality. The Guideline Development Group has made the following recommendations for research on the basis of its review of the evidence.

In making these recommendations for research, the guideline developers consider it important and relevant that the research should be specific to the UK population because there are cultural differences in the response to side effects and non-contraceptive effects of hormonal contraceptives. In addition, freedom to choose any contraceptive method and the provision of a free contraceptive health service in the UK can influence important outcomes such as continuation rates and patterns of method switching.

### **4.1 Typical use of contraception**

Few women use contraception perfectly (that is, exactly in accordance with the product instructions) and consistently. Pregnancy rates during typical use reflect effectiveness of a method among women who use the method incorrectly or inconsistently. Few data are available on typical use of any contraceptive method among women in the UK. Much of the data on contraceptive effectiveness used in the guideline come from clinical trials or surveys undertaken in other countries such as the USA. Large prospective cohort studies are needed to compare the contraceptive effectiveness of LARC methods with non-LARC methods during typical use in the UK.

## **4.2 Patterns of LARC use**

Most women will need to use contraception for more than 30 years. Patterns of contraceptive use vary with age, ethnicity, marital status, fertility intention, education and lifestyle. Large prospective cohort studies are needed to identify:

- patterns of use (initiation, continuation and switching between methods) of LARC methods compared with non-LARC methods
- factors that influence the patterns of use of LARC.

## **4.3 Uptake and acceptance of LARC**

In addition to individual circumstances and needs, a woman's choice and acceptance of LARC may be influenced by potential health disbenefits (side effects and risks) as well as non-contraceptive benefits of LARC (such as alleviation of menorrhagia). Large population studies of appropriate design are needed to determine the effect of these factors on the uptake of LARC methods and the implications for NHS resources.

## **4.4 Bone mineral density in women using DMPA**

The effect of injectable contraceptives on bone mineral density in women who have used DMPA for longer than 2 years is uncertain. Adequately powered surveys or cross-sectional studies are needed to examine the recovery of bone mineral density after discontinuation of DMPA after long-term and very long-term use. Studies are also needed to examine the risk of bone fractures in older women.

## **5 Other versions of this guideline**

The National Institute for Health and 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 [www.nice.org.uk/guidelinesprocess](http://www.nice.org.uk/guidelinesprocess) 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 [www.ncc-wch.org.uk/index.asp?PageID=21](http://www.ncc-wch.org.uk/index.asp?PageID=21), the NICE website ([www.nice.org.uk/CG030fullguideline](http://www.nice.org.uk/CG030fullguideline)) and the website of the National Library for Health ([www.nlh.nhs.uk](http://www.nlh.nhs.uk)).

### **5.2 Quick reference guide**

A quick reference guide for healthcare professionals is also available from the NICE website ([www.nice.org/CG030quickrefguide](http://www.nice.org/CG030quickrefguide)) or from the NHS Response Line (telephone 0870 1555 455; quote reference number N0915).

### **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/CG030publicinfo](http://www.nice.org.uk/CG030publicinfo)) or from the NHS Response Line (0870 1555 455); quote reference number N0916.

## **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 36).

### Classification of recommendations on interventions

| Recommendation grade | Evidence  |
|----------------------|---|
| A                    | <ul style="list-style-type: none"> <li>• At least one meta-analysis, systematic review, or randomised controlled trial (RCT) that is rated as 1<sup>++</sup>, and is directly applicable to the target population, <b>or</b></li> <li>• A systematic review of RCTs or a body of evidence that consists principally of studies rated as 1<sup>+</sup>, is directly applicable to the target population and demonstrates overall consistency of results, <b>or</b></li> <li>• Evidence drawn from a NICE technology appraisal</li> </ul> |
| B                    | <ul style="list-style-type: none"> <li>• A body of evidence that includes studies rated as 2<sup>++</sup>, is directly applicable to the target population and demonstrates overall consistency of results, <b>or</b></li> <li>• Extrapolated evidence from studies rated as 1<sup>++</sup> or 1<sup>+</sup></li> </ul>   |
| C                    | <ul style="list-style-type: none"> <li>• A body of evidence that includes studies rated as 2<sup>+</sup>, is directly applicable to the target population and demonstrates overall consistency of results, <b>or</b></li> <li>• Extrapolated evidence from studies rated as 2<sup>++</sup></li> </ul>   |
| D                    | <ul style="list-style-type: none"> <li>• Evidence level 3 or 4, <b>or</b></li> <li>• Extrapolated evidence from studies rated as 2<sup>+</sup>, <b>or</b></li> <li>• Formal consensus</li> </ul>  |
| D(GPP)               | <ul style="list-style-type: none"> <li>• A good practice point (D(GPP)) is a recommendation for best practice based on the experience of the Guideline Development Group</li> </ul>   |

## Levels of evidence for intervention studies

| Level of evidence | Type of evidence  |
|-------------------|---|
| 1 <sup>++</sup>   | <ul style="list-style-type: none"> <li>• High-quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias</li> </ul>  |
| 1 <sup>+</sup>    | <ul style="list-style-type: none"> <li>• Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias</li> </ul>   |
| 1 <sup>-</sup>    | <ul style="list-style-type: none"> <li>• Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias</li> </ul>   |
| 2 <sup>++</sup>   | <ul style="list-style-type: none"> <li>• High-quality systematic reviews of case-control or cohort studies</li> <li>• 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</li> </ul> |
| 2 <sup>+</sup>    | <ul style="list-style-type: none"> <li>• 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</li> </ul>   |
| 2 <sup>-</sup>    | <ul style="list-style-type: none"> <li>• Case-control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal</li> </ul>  |
| 3                 | <ul style="list-style-type: none"> <li>• Non-analytical studies (for example, case reports, case series)</li> </ul>   |
| 4                 | <ul style="list-style-type: none"> <li>• Expert opinion, formal consensus</li> </ul>  |

## **Appendix B: The Guideline Development Group**

### **Dr Chris Wilkinson (Group Leader)**

Consultant in Sexual and Reproductive Health, Margaret Pyke and Mortimer Market Centres, and Camden Primary Care Trust; Honorary Consultant, University College Hospital, London

### **Professor Anna Glasier**

Director, Family Planning and Well Woman Services, NHS Lothian and University of Edinburgh

### **Dr Simon Barton**

Clinical Director, St Stephens Centre, Chelsea and Westminster Healthcare NHS Trust

### **Dr Alyson Elliman**

Lead Associate Specialist, Family Planning Service, Croydon PCT

### **Dr Sophie Mancey-Jones**

General Practitioner, London

### **Ms Shelley Mehigan**

Clinical Nurse Specialist, Family Planning Clinic, The Garden Clinic, Upton Hospital, Slough

### **Dr Sam Rowlands**

Clinical Director, British Pregnancy Advisory Service (bpas)

### **Mrs Sue Ward**

Service Manager/Clinical Nurse Specialist, Morley Street Health Centre, South Downs Health NHS Trust

### **Ms Stephanie Whitehead**

Policy and Development Manager, Brook

### **Ms Joyce Howarth**

Norah Fry Research Centre, University of Bristol

**Technical team at the National Collaborating Centre for Women’s and Children’s Health**

|                            |  |
|----------------------------|--|
| Dr Martin Dougherty        | Executive Director   |
| Dr Moira Mugglestone       | Deputy Director  |
| Mrs Irene Kwan             | Research Fellow  |
| Mr Michael Corkett         | Information Specialist   |
| Miss Anna Bancsi           | Work Programme Coordinator                                       |
| Dr Hannah-Rose Douglas     | Health Economist, London School of Hygiene and Tropical Medicine |
| Dr Ifigeneia Mavranouzouli | Health Economist   |

**Additional support was received from**

Anna Burt, Helena Campbell, Jiri Chard, Rosie Crossley, Greg Eliovson, Beti Evans, Anita Fitzgerald, Neil Gordon, Kate Homer, Sue Lee, Rona McCandlish, Alex McNeil, Chantal Morel, Rintaro Mori, Anne Marie O’Connell, Debbie Pledge, Felix Ram, Amanda Sage, Claire Sexton, Allan Templeton, Jane Thomas and Samantha Vahidi at the National Collaborating Centre for Women’s and Children’s Health.

Steve Pilling and Craig Whittington at the National Collaborating Centre for Mental Health.

Francoise Cluzeau, Wendy Riches and Emily Power at the National Institute for Health and Clinical Excellence (NICE).

## **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, healthcare professionals and people with experience of the issues affecting patients and carers. The members of the Guideline Review Panel were as follows.

### **Mrs Christina Oppenheimer (Chair)**

Consultant in Obstetrics and Gynaecology, Leicester Royal Infirmary;  
Honorary Senior Lecturer in Medical Education, University of Leicester

### **Mr Vincent Argent**

Consultant Obstetrician and Gynaecologist, Eastbourne District General Hospital

### **Dr Jo Cox**

Clinical Research Physician, Eli Lilly

### **Mrs Carol Youngs**

Policy Director, British Dyslexia Association

## **Appendix D: Technical detail on the criteria for audit**

### ***Possible objectives for an audit***

An audit could be carried out 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***

The audit could cover a period of 12 months and could include:

- healthcare professionals responsible for delivery of information and advice about LARC
- healthcare 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. Percentage of women requiring contraception who have it documented in their notes that they have been informed about and offered a choice of all contraceptive methods, including LARC methods   | Women requiring short-term contraception |  |
| 2. Percentage of women considering LARC methods who have it documented in their notes that they have received information that enables them to choose and use the method effectively  | None                                     |  |
| 3. Percentage of healthcare professionals advising women about contraceptive choices who receive training and are competent to:<br>a) help women to consider and compare the risks and benefits of all methods relevant to their individual needs<br><br>b) manage common side effects and problems | None                                     | Guidance for training for doctors and nurses can be obtained from the Faculty of Family Planning and Reproductive Health Care (FFPRHC) and the Royal College of Nursing (RCN) respectively |
| 4. a) Percentage of practices/services with written protocol for referral for LARC if not provided inhouse<br><br>b) Percentage of documented LARC referrals by healthcare professionals who do not provide LARC within their own practice/service  | None                                     |  |

|   |      |   |
|---|------|---|
| 5. Percentage of healthcare professionals providing intrauterine or subdermal contraceptives who have received training to develop relevant skills to provide these methods, and evidence of CPD (Continuing Professional Development) and practice | None | Guidance for training for doctors and nurses can be obtained from the FFPRHC and the RCN respectively |
| 6. Contraceptive service providers should audit the uptake of LARC  | None |   |

## Appendix E: Features of the LARC methods to discuss with women

|                           | Copper IUD   | IUS  | Progestogen-only injection  | Implant (Implanon)   |
|---------------------------|--|--|---|--|
| <b>How it works</b>       | <ul style="list-style-type: none"> <li>By preventing fertilisation and inhibiting implantation</li> </ul>  | <ul style="list-style-type: none"> <li>Mainly by preventing implantation; sometimes by preventing fertilisation</li> </ul>   | <ul style="list-style-type: none"> <li>Primarily by preventing ovulation</li> </ul>   | <ul style="list-style-type: none"> <li>By preventing ovulation</li> </ul>  |
| <b>Duration of use</b>    | <ul style="list-style-type: none"> <li>5–10 years for IUDs with 380 mm<sup>2</sup> copper, depending on type</li> <li>Until contraception no longer needed if woman 40 years or more at time of insertion<sup>a</sup></li> </ul> | <ul style="list-style-type: none"> <li>5 years</li> <li>Until contraception no longer needed if woman 45 years or more at time of insertion and does not have periods with IUS in place<sup>a</sup></li> </ul> | <ul style="list-style-type: none"> <li>Repeat injections needed every 12 weeks (DPMA) or 8 weeks (NET-EN)<sup>b</sup></li> </ul>  | <ul style="list-style-type: none"> <li>3 years</li> </ul>  |
| <b>Failure rate</b>       | <ul style="list-style-type: none"> <li>Fewer than 2 in 100 women over 5 years, for IUDs with at least 380 mm<sup>2</sup> copper</li> <li>Expulsion occurs in fewer than 1 in 20 women in 5 years</li> </ul>                      | <ul style="list-style-type: none"> <li>Fewer than 1 in 100 women over 5 years</li> <li>Expulsion occurs in fewer than 1 in 20 women in 5 years</li> </ul>  | <ul style="list-style-type: none"> <li>Fewer than 0.4 in 100 over 2 years; pregnancy rates lower for DPMA than NET-EN</li> </ul>  | <ul style="list-style-type: none"> <li>Fewer than 0.1 in 100 over 3 years</li> </ul>   |
| <b>Effects on periods</b> | <ul style="list-style-type: none"> <li>Heavier bleeding and/or dysmenorrhoea likely</li> </ul>   | <ul style="list-style-type: none"> <li>Irregular bleeding and spotting common in first 6 months</li> <li>Oligomenorrhoea or amenorrhoea likely by end of first year</li> </ul>                                 | <ul style="list-style-type: none"> <li>Amenorrhoea common, and is more likely with DMPA than NET-EN, and with longer use; not harmful</li> <li>Persistent bleeding may occur</li> </ul> | <ul style="list-style-type: none"> <li>Changes in bleeding patterns likely; 20% of women have no periods, and almost 50% have infrequent, frequent or prolonged bleeding; bleeding patterns likely to remain irregular</li> <li>Dysmenorrhoea may improve</li> </ul> |

|                    | Copper IUD   | IUS  | Progestogen-only injection   | Implant (Implanon)  |
|--------------------|--|--|--|---|
| <b>Other risks</b> | <ul style="list-style-type: none"> <li>Up to 50% of women stop using IUDs within 5 years; most common reasons are unacceptable vaginal bleeding and pain</li> <li>Ectopic pregnancy: overall rates lower than with no contraception But if a woman becomes pregnant with IUD in situ, risk is about 1 in 20 so she should seek advice to exclude it</li> <li>Pelvic inflammatory disease: less than 1% for women at low risk of STI</li> <li>Uterine perforation: less than 1 in 1000</li> <li>Change in mood or libido: may be a small effect, similar for IUD and IUS</li> </ul> <p><b>No evidence of effect on:</b></p> <ul style="list-style-type: none"> <li>Weight gain</li> </ul> | <ul style="list-style-type: none"> <li>Up to 60% of women stop using the IUS within 5 years; most common reasons are unacceptable vaginal bleeding and pain, less common reason is hormonal (non-bleeding) problems</li> <li>Ectopic pregnancy: overall rates lower than with no contraception But if a woman becomes pregnant with IUS in situ, risk is about 1 in 20 so she should seek advice to exclude it</li> <li>Pelvic inflammatory disease: less than 1% for women at low risk of STI</li> <li>Uterine perforation: less than 1 in 1000</li> <li>Change in mood or libido: may be a small effect, similar for IUD and IUS</li> <li>Acne: risk may be increased, but is an uncommon reason for stopping use</li> </ul> <p><b>No evidence of effect on:</b></p> <ul style="list-style-type: none"> <li>Weight gain</li> </ul> | <ul style="list-style-type: none"> <li>Up to 50% of women stop using DMPA by 1 year; the most common reason is an altered bleeding pattern, such as persistent bleeding</li> <li>Weight gain: may be up to 2–3 kg over a year on DMPA</li> <li>Bone mineral density: DMPA use is associated with small loss; largely recovered when DMPA is stopped<br/>No evidence that fracture risk is increased</li> </ul> <p><b>No evidence of effect of DMPA on:</b></p> <ul style="list-style-type: none"> <li>Depression</li> <li>Acne</li> <li>Headaches</li> </ul> | <ul style="list-style-type: none"> <li>Up to 43% of women stop using Implanon within 3 years; 33% because of irregular bleeding, and less than 10% for other reasons including hormonal (non-bleeding) problems</li> <li>Acne: may occur</li> </ul> <p><b>No evidence of effect on:</b></p> <ul style="list-style-type: none"> <li>Weight</li> <li>Mood</li> <li>Libido</li> <li>Headaches</li> <li>Bone mineral density</li> </ul> |

|                                  | <b>Copper IUD</b>   | <b>IUS</b>  | <b>Progestogen-only injection</b>   | <b>Implant (Implanon)</b>  |
|----------------------------------|---|---|---|--|
| <b>Return to fertility</b>       | <ul style="list-style-type: none"> <li>• No evidence of delay</li> </ul>  | <ul style="list-style-type: none"> <li>• No evidence of delay</li> </ul>  | <ul style="list-style-type: none"> <li>• Can take up to a year</li> <li>• But women who do not want to get pregnant should start a different contraceptive as soon as they stop injections</li> </ul> | <ul style="list-style-type: none"> <li>• No evidence of delay</li> </ul>   |
| <b>Advice at time of fitting</b> | <ul style="list-style-type: none"> <li>• There may be pain and discomfort for a few hours and light bleeding for a few days</li> <li>• Watch for symptoms of uterine perforation</li> <li>• Follow-up visit after first menses or 3–6 weeks after insertion</li> <li>• Return at any time if problems or to change method</li> <li>• Check for threads regularly</li> </ul> | <ul style="list-style-type: none"> <li>• There may be pain and discomfort for a few hours and light bleeding for a few days</li> <li>• Watch for symptoms of uterine perforation</li> <li>• Follow-up visit after first menses or 3–6 weeks after insertion</li> <li>• Return at any time if problems or to change method</li> <li>• Check for threads regularly</li> </ul> | <ul style="list-style-type: none"> <li>• Return for next injection, or if problems</li> </ul>   | <ul style="list-style-type: none"> <li>• Insertion and removal cause discomfort and bruising but technical problems occur in fewer than 1 in 100 procedures</li> <li>• 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.</li> <li>• No routine follow-up but return at any time if problems or to change/discontinue method</li> </ul> |

<sup>a</sup>Check Summary of Product Characteristics for current licensed indications; if using outside licensed indications, discuss, obtain informed consent and document this in the notes.

<sup>b</sup>At time of publication, NET-EN is licensed for short-term use (two injections); if using outside licensed indications, discuss, obtain informed consent and document this in the notes.

## **Appendix F: Choice of method for different groups of women**

### ***All LARC methods are suitable for:***

- nulliparous women
- women who are breastfeeding
- women who have had an abortion – at time of abortion or later
- women with BMI > 30
- women with HIV – encourage safer sex
- women with diabetes
- women with migraine with or without aura – all progestogen-only methods may be used
- women with contraindication to oestrogen

### ***Choices for adolescents***

- **IUD, IUS, implants:** no specific restrictions to use
- **DMPA:** care needed; only use if other methods unacceptable or not suitable<sup>a</sup>

### ***Choices for women more than 40 years old***

- **IUD, IUS, implants:** no specific restrictions to use
- **DMPA:** care needed, but generally benefits outweigh risks<sup>a</sup>

### ***Choices for women post-partum, including breastfeeding***

- **IUD, IUS:** can be inserted from 4 weeks after childbirth
- **DMPA, implants:** any time after childbirth

### ***Choices for women taking other medication***

- **IUS, DMPA:** no evidence that effectiveness of other medication reduced.
- **Implants:** not recommended for women taking enzyme-inducing drugs

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<sup>a</sup> Refer to CSM advice issued in November 2004. Go to [www.mhra.gov.uk](http://www.mhra.gov.uk) and search for Depo Provera.

### ***Choices for women with epilepsy***

- **IUD, IUS, DMPA:** no specific contraindications; DMPA use may be associated with reduced seizure frequency
- **Implants:** not recommended for women taking enzyme-inducing drugs

### ***Choices for women at risk for STI***

- **IUD, IUS:** tests may be needed before insertion
- **DMPA, implants:** no specific contraindications

Provide advice on safer sex.