



Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit

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FFPRHC Guidance (October 2004) Contraceptive choices for young people

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This Guidance provides information for clinicians and for young people considering the use of contraception. A key to the grades of recommendations, based on levels of evidence, is given at the end of this document. Details of the methods used by the Clinical Effectiveness Unit (CEU) in developing this Guidance and evidence tables summarising the research basis of the recommendations are available on the Faculty website (www.ffprhc.org.uk). Abbreviations (in alphabetical order) used include: BMD, bone mineral density; BMI, body mass index; CEU, Clinical Effectiveness Unit; COC, combined oral contraception; DfES, Department for Education and Skills; DH, Department of Health; DMPA, depot medroxyprogesterone acetate; EC, emergency contraception; EE, ethinylestradiol; GUM, genitourinary medicine; IUD, copper-bearing intrauterine contraceptive device; LNG-IUS, levonorgestrel-releasing intrauterine system; NATSAL, National Attitudes and Lifestyle Survey; POC, progestogen-only contraception; POP, progestogen-only pill; SRE, sex and relationships education; STI, sexually transmitted infection; WHO, World Health Organization; WHOMECS, WHO *Medical Eligibility Criteria for Contraceptive Use*; WHOSPR, WHO *Selected Practice Recommendations for Contraceptive Use*.

Background

In this Guidance we refer to a 'young person' as anyone aged less than 18 years. In England, Wales and Northern Ireland a child is 'a person who has not reached the age of 18 years'¹ and in Scotland is 'a person below the age of 16 years'.² Some issues relating to contraceptive advice and treatment are specific to young people aged less than 16 years.

The rate of teenage pregnancy in the UK is high compared to other European countries. In England alone in 2001 the conception rate for women aged less than 18 years was 42.3 per 1000 women aged 15-17 years and almost half (46%) led to abortion.³ Although the conception rate for women under 16 years is lower (7.9 per 1000 women aged 13-15 years), more than half (55.9%) led to abortion.³ A large population survey, the National Attitudes and Lifestyle Survey (NATSAL),⁴ found that contraceptive use at first intercourse is increasing. However, early age at first intercourse is significantly associated with teenage pregnancy and sexually transmitted infection (STI). Sexual Health Strategies for England, Wales⁵ and Scotland⁶ are attempting to reduce teenage pregnancy and STIs through sex education, better access to contraception, and targeting vulnerable groups.

Sexual intercourse before the age of legal consent cannot be encouraged; however, health professionals working with young people are able to provide confidential advice and treatment to ensure that each young person is able to make an informed choice about his or her sexual activity. This evidence-based Guidance covers medical, legal and other issues facing young people and clinicians in relation to contraceptive advice and treatment, and to sexual and reproductive health. This Guidance focuses on contraceptive choices for young women; however, the importance of sexual health and contraceptive advice for young men is also highlighted.

How can a clinician assess a young person's capacity to consent to contraceptive use?

1 A clinician should assess a young person's competence to consent to treatment by her ability to understand information provided, to weigh up the risks and benefits, and to express her own wishes (Grade C).

2 If a young person is assessed competent this should be documented in case notes as her being 'Fraser ruling competent' (advice understood, will have or continue to have sex, advised to inform her parents, in her best interest) (Grade C).

3 A clinician can provide contraceptive advice or treatment to a competent young person (<16 years) without parental consent or knowledge using the Fraser criteria (Grade C).

Guidance on consent to medical treatment is available to assist clinicians.⁷⁻¹⁰ To establish if a young person has the capacity to consent to treatment, similar criteria as for adults should be applied.¹¹ A 'Consent Toolkit' is available from the British Medical Association to facilitate improvements in the practice of obtaining valid consent.¹²

Any competent young person, regardless of age, can give valid consent to medical treatment.⁸ In law, young people aged over 16 years are presumed to be competent to give consent.¹² For young people under the age of 16 years, however, competence to consent has to be demonstrated. A young person must have sufficient understanding and maturity to understand fully what is proposed (England, Wales, Northern Ireland) or be capable of understanding the nature and possible consequences of the treatment (Scotland).¹²⁻¹⁴

Competence is demonstrated if the young person is able to:

- understand the treatment, its purpose and nature, and why it is being proposed
- understand its benefits, risks and alternatives
- understand in broader terms what the consequences of the treatment will be
- retain the information for long enough to use it and weigh it up in order to arrive at a decision.

For consent to be valid it must be given voluntarily.¹²

Following the case of *Gillick vs West Norfolk and Wisbech Area Health Authority* (1986),¹⁵ the Department of Health (DH) provided guidance for clinicians specifically relating to contraceptive provision for those aged less than 16 years. The Law Lords' ruling (the Fraser ruling) states that "a clinician may provide contraceptive

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Table 1 Outline of the Fraser criteria, which must be met to allow health professionals to provide contraceptive advice and treatment to young people under the age of 16 years without parental consent

The Fraser criteria
<ul style="list-style-type: none"> ● The young person understands the advice. ● The young person cannot be persuaded to inform her parents or to allow the clinician to inform them. ● It is likely that the young person will continue to have sexual intercourse with or without the use of contraception. ● The young person's physical or mental health may suffer as a result of withholding contraceptive advice or treatment. ● It is in the best interests of the young person for the clinician to provide contraceptive advice, treatment or both without parental consent.

advice and treatment to a young person under the age of 16 years without parental consent provided he has confirmed that the young person is competent and that the Fraser criteria are met" (Table 1).¹⁵ In Scotland and Northern Ireland other documents apply.^{14,16} The following points should be confirmed and documented in the case notes as signifying 'Fraser ruling competence':

- advice understood
- will have or will continue to have sex
- advised to inform her parents
- providing advice and/or treatment is in her best interest.

Determining 'best interests' should take account of a number of factors including the young person's own wishes and values, and clinical judgement about treatment options.¹² Young people should be encouraged to inform or let their general practitioner (GP) be informed about any contraception they are prescribed.

A young person with learning disability or mental impairment may still be competent to make decisions about treatment.¹² For a non-competent young person aged less than 18 years, only a holder of 'parental responsibility' can give consent to treatment on her behalf.^{17,18} In Scotland,

Table 2 Consultations with young people

Aims of the consultation	<p>Develop rapport and gain the confidence of the young person.</p> <p>Identify the reason for this visit.</p> <p>Identify other sexual health and contraceptive needs.</p> <p>Provide information about confidentiality – posters or leaflets may be helpful.</p> <p>Consider issues about informed consent.</p> <p>Assess if the young person is 'Fraser ruling competent' if under 16 years and document that the advice is understood, she will have or continue to have sex, she has been advised to inform her parents, this is in her best interests.</p> <p>Assess risk of physical or emotional maltreatment, sexual exploitation or coercion.</p>
The initial contact	<p><i>Reception staff</i></p> <p>As often the first point of contact for the young person with the service, the reception staff should provide a friendly and non-judgemental welcome.</p> <p><i>Clinical staff</i></p> <p>The young person should be allowed as much time in the consultation as they need. Do not assume they have come for contraception.</p> <p>Barriers such as desks and computer screens should be minimised.</p> <p>Avoid writing notes whilst listening and observing.</p> <p>Take time to explain the confidentiality to be expected from all medical and non-medical staff in the health care team and the limits of confidentiality.</p>

the Adults with Incapacity (Scotland) Act suggests that a proxy decision-maker is appointed by a court for an incompetent young person over the age of 16 years. The proxy decision-maker has the power to consent to medical treatment on behalf of the incompetent young person.^{12,17}

Building a relationship with a young person during a consultation may provide more health benefit and opportunity for education than refusing treatment. The aims of any consultation with a young person are summarised in Table 2.

How can a clinician be alert to the possibility of maltreatment, coercion or exploitation of a young person?

4 A clinician may wish to inform a young person of the law in relation to sexual activity (Good Practice Point).

5 All staff involved in services for young people should receive appropriate training to alert them to the possibility of exploitation or coercion and should be aware of local mechanisms for reporting in line with child protection policy and procedures (Grade C).

6 All services should have a named clinician identified as the local lead on child protection policy and procedure (Grade C).

Managing consultations with young people requires a fine balance between giving and collecting information. Clinicians should avoid appearing to moralise about sex and sexuality. Nevertheless, they may wish to ensure that young clients are aware of the law in relation to sexual activity. Some young people have sexual experience before the age of 16 years.⁴ However, the legal age of consent to sexual activity in Scotland, England and Wales is 16 years and in Northern Ireland is 17 years.^{19,20} In England and Wales, the law on sexual offences is not gender-specific and refers to men and women.²⁰ There are three offences which cover non-consensual acts involving young people under the age of 16 years: rape (penetration of the vulva, vagina, anus or mouth with the penis), assault by penetration (penetration of the vagina or anus with a part of the body or anything else) and sexual assault (touching in a sexual way). Sexual activity under the age of 16 years is an offence even if consensual or both parties are aged under 16 years.^{20,21} Offences are considered more serious, and attract a higher maximum sentence, when the young person is aged under 13 years.²⁰⁻²² The offence is committed by the person who has sexual intercourse or other sexual activity with the person under 16 years – not by the person aged under 16 herself. However, if both are aged less than 16 years, then both parties are committing an offence. The Sexual Offences Act allows those working with young people under the age of 16 years to provide advice and treatment on contraception, sexual and reproductive health.^{14,20}

In Scotland, sexual offences are gender-specific and referred to as crimes of indecency including rape, indecent assault and lewd and indecent behaviour.²¹ There is no statutory offence of heterosexual intercourse with a boy aged less than 16 years. However, a charge of lewd and libidinous practices could be made if the boy is under the age of puberty (14 years). Effectively, the legal age of consent for heterosexual intercourse in Scotland for males is 14 years and for homosexual intercourse is 16 years.²³

For most young people, sexual activity is consensual. Sexual activity should be a positive choice, rather than a

passive one. In controlling or abusive relationships, free choice may be denied.²⁴

Surveys of young people (mean age 14 years) show high rates of regret following first intercourse.²⁵ One in five girls described being under pressure to have sex for the first and subsequent times, compared with fewer than one in ten boys. Four in ten of all responders said the timing of sex had been 'about right'. However, around one in three girls and boys reported that it had happened 'too early' and 13% of girls and 5% of boys stated it 'should not have happened at all'. Similar high rates of regret after early first intercourse and increasing coercion with decreasing age at first intercourse were identified in a cross-sectional study in New Zealand.²⁶

In a national population survey (NATSAL), 11161 people aged between 16 and 44 years were interviewed using face-to-face and computer-assisted interviews.⁴ NATSAL 2000 provides important information on the patterns of sexual behaviour in Britain. 'Sexual competence' was defined by researchers as first intercourse occurring in the absence of duress and regret, with autonomy of decision and with the use of a reliable contraceptive method.⁴ Lack of sexual competence increases with decreasing age at first intercourse. NATSAL 2000 found that 91% of girls and 67% of boys were not sexually competent at first intercourse.⁴

The DH²⁷ and the Scottish Executive²⁸ provide national frameworks within which agencies and professionals should work at local level to safeguard children. The DH also provides advice on what to do if there are concerns about a child being maltreated.²⁹ All staff involved in services for young people should receive appropriate training to be alert to the possibility of exploitation or coercion.²⁷ Courses by local health authority child protection services provide suitable basic training. Professionals working with young people should consider the possibility of physical or emotional maltreatment, sexual exploitation or coercion. Some questions that may assist clinicians in determining a young person's competence and raise suspicion of sexual

exploitation or coercion are summarised in Table 3.

Psychological and behavioural indicators of possible maltreatment include eating disorders, drug and alcohol abuse, depression, anxiety, self mutilation, criminal behaviour, truancy, running away, promiscuity and prostitution.³⁰ Other indicators include recurrent abdominal pain, migraine and multiple, vague, physical symptoms.

All services for young people should have a named clinician (doctor or nurse) who will take the professional lead and be familiar with local child protection procedures.²⁷ All staff who may encounter concerns about the well-being or safety of a young person should know:

- who provides further advice and expertise and under what circumstances they should they be contacted
- what services are available locally, when and how to refer.

How can a clinician address confidentiality and disclosure with a young person?

- 7 Each young person should be made aware of the confidentiality to be expected from all members of the health care team (Grade C).**
- 8 Each young person may be advised that other professionals, such as teachers and youth workers, may not have the same duty of confidentiality (Good Practice Point).**
- 9 A young person aged less than 16 years should be made aware, in advance, that confidentiality might be broken if current maltreatment, exploitation or coercion is suspected (Grade C).**
- 10 A young person should be made aware that her consent would be sought if information is to be shared or confidentiality breached. However, consent is not essential if the disclosure is justified (Grade C).**

Table 3 Questions that may help to support the young person in choosing the right method of contraception and to assess sexual risk and possibility of coercion

History taking	What to ask
Social history	Do you attend school or college or are you working? Who do you get support or advice from? How is your home life and who lives at home? Do your parents know you have come here today? Do parents know you are having sex? Will you tell your parents? What are your preferences for contraception? What do your friends use? How good do you think you might be at remembering pills?
General health	Enquire about prescription medications, drug use: smoking, alcohol, non-prescription drugs. Do you have any health concerns? Do you have health concerns relating to contraceptive use?
Reproductive health	Enquire about age at menarche, menstrual cycle, sexual development, previous pregnancy, termination, previous sexually transmitted infection, previous and current contraceptive use.
Family history	Enquire about any significant medical problems.
Sexual history	Don't assume the young person's partner is of the opposite sex. Have you had sex or are you just thinking about having it? Have you thought about other consequences of having sexual intercourse: pregnancy, sexually transmitted infections? Do you feel the time is about right to have sex? Would you be able to say no if you did not feel this was the right time? Have you had sex without condoms or any other method of contraception? Have you ever been forced to have sex? Do you have a partner (boyfriend or girlfriend) at the moment? Is this your first partner? How long have you been with your current partner? Is this the first time your partner has had sex? How old is your partner? Do you or your partner have other partners? How well do you know him/her? Have any of your partners ever rewarded you with cigarettes, money or drugs for having sex with them? Does your partner ever frighten you?

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11 The timing of reporting or breach of confidentiality should be carefully considered and made jointly with the professional lead (Good Practice Point).

The duty of confidentiality owed to a young person is similar to that for an adult.³¹ Young people attending health services should be made aware of the confidentiality within the health care team and under what circumstances information would need to be shared.³² A number of publications provide guidance on confidentiality for young people.^{30,32-34} However, the duty of confidentiality may not extend to other professionals such as teachers or youth workers. Guidance is available for youth workers on referring young people for contraceptive advice.³⁵

The responsibility of staff working with young people is to protect each young person.^{31,36-38} If there is a real suspicion of physical or emotional maltreatment, sexual exploitation or coercion, a breach of confidentiality is justifiable.³⁷ In this circumstance a clinician should seek consent for disclosure from the young person. If the young person is unwilling to give consent, referral can still be made in line with the local child protection policy.

If a young person discloses previous exploitation, coercion or maltreatment (which is not continuing) it may be appropriate to allow that young person time and space to consider her options. Further support and advice should be offered. Similarly, when continuing maltreatment is disclosed, the young person may need time, space and support to come to terms with this. Staff must balance the degree of current or likely harm against the young person's right to confidentiality. Nevertheless, her safety must be ensured. The local child protection guideline must be followed. Advice from the local lead may be sought.

Young people should be made aware of how information about them is stored and used under the Data Protection Act. A focus group for young people run by the Department for Education and Skills (DfES) found that young people want to be informed about the information that is kept or passed on about them and wish information to be shared only with their consent.³⁹ All staff should be trained in the legal requirements of the Data Protection Act fulfilling Caldicott requirements, but this is not specific to young people.

How can a clinician assess medical eligibility for contraceptive use?

12 A young person should be assisted in making contraceptive choices by considering her individual contraceptive needs and wishes as well as other factors relating to lifestyle and risk of pregnancy or STI (Good Practice Point).

The World Health Organization *Medical Eligibility Criteria for Contraceptive Use* (WHOMEK)⁴⁰ provides guidance on who can use contraceptive methods safely. Clinicians and young women also need to consider factors relating to lifestyle and risk of pregnancy or STI (Table 3).

Eligibility, rather than ineligibility, criteria are used. Young people may have specific risks relating to pubertal development, risk of STI or ability to comply with contraception. Young people have a lower risk, compared to older women, of cardiovascular and other age-related diseases. However, young people may have concurrent diseases requiring consideration such as diabetes mellitus, inflammatory bowel disease, cystic fibrosis, renal disease, epilepsy or anorexia nervosa.

WHOMEK recommends unrestricted use (WHO

Category 1) of combined oral contraception (COC), the progestogen-only pill (POP) and the progestogen-only implant from menarche (the onset of menstruation).⁴⁰ The benefits of using progestogen-only injectables such as depot medroxyprogesterone acetate (DMPA) from menarche to age 18 years outweigh the risks (WHO Category 2).⁴⁰ For women aged over 18 years, DMPA use is unrestricted (WHO 1). WHOMEK recommends that the benefits of using intrauterine contraception outweigh the risks for women from menarche to age 20 years (WHO 2). The Clinical Effectiveness Unit (CEU) supports WHOMEK recommendations unless otherwise stated. For topics where confusion or uncertainty exists, evidence to support the WHOMEK recommendations for contraceptive use by young people is summarised below.

Puberty and menarche

13 Young women should be advised against the use of regular hormonal contraception before menarche. If they are sexually active, condoms should be advocated (Good Practice Point).

Young women having unprotected intercourse before the onset of menstruation (menarche) may be at risk of pregnancy. However, even after the menarche, anovulation is common. The median length of the first menstrual cycle is 34 days with 38.3% of cycles over 40 days.⁴¹ Cycle regularity (three successive cycles within a range of 10 days with none of the three cycles shorter than 20 days or longer than 40 days) was apparent in only 19% of girls within three cycles of the onset of menstruation. By the 20th menstrual cycle, ovulation occurs in up to 50% of young women.⁴² No evidence was identified by the CEU on the use of hormonal contraception prior to menarche. On theoretical grounds, the CEU does not recommend the use of regular hormonal methods prior to the onset of menstruation. Condoms should be recommended to young people requiring contraception before this time.

Bone mineral density

14 Young women should be informed that normal pubertal development, exercise, diet and smoking influence bone mineral density (BMD) (Grade B).

15 Young women should be informed about the effects of hormonal contraception on BMD (Grade B).

16 A young woman may choose a progestogen-only injectable over other contraceptive methods despite uncertainty about the long-term effect on BMD (Good Practice Point).

The early reproductive years are a crucial time for the attainment of peak bone mass. Many factors (nutrition, exercise, calcium intake, smoking and sex steroid hormones) influence bone mass.⁴³ These factors may influence bone mineral density (BMD) more than the use of contraceptive hormones.

Longitudinal, prospective studies show that the maximum increase in bone mass in women occurs between the ages of 11 and 14 years.⁴⁴⁻⁴⁷ A cross-sectional study found that peak bone mass was reached at several sites by the age of 18 years⁴⁴ and any increase in bone mass after puberty is due primarily to consolidation of the skeleton.⁴⁵

The effects of pregnancy and lactation on BMD in young people have been documented.^{48,49} In young women, calcium absorption is high in the third trimester, helping to protect against decreases in BMD.⁴⁸ Lactation

has a negative effect on BMD in young women, particularly if calcium intake is low.⁵⁰

Progestogen-only injectables. Most concerns regarding BMD relate to the long-term use of progestogen-only injectable contraceptives, particularly DMPA. However, less than half of young women who commence DMPA will continue it long term and therefore its effect on BMD may be short-lived.^{51,52} A retrospective case note review found that less than a third of young women who commenced DMPA at the age of 16 years continued it for a year or more.⁵¹ Another retrospective study found that 44.5% of young women were still using DMPA at 4 years.⁵² Serum oestradiol levels in young women using DMPA are similar to those seen in the early- to mid-follicular phase of a normal cycle.⁵³

Studies in women aged over 18 years⁵⁴⁻⁵⁸ show that BMD at the femoral neck and lumbar spine is reduced with DMPA use compared to non-users. However, any loss in BMD recovers when DMPA is stopped.⁵⁷

Studies on young DMPA users are limited by small sample size, high rates of attrition and failure to adjust for confounding factors.^{53,59-61} A prospective study of young women (aged 12 to 21 years) using DMPA found BMD decreased by 1.5% after 1 year of use and by 3.1% after 2 years' use.⁶⁰ In the same study, young women not using hormonal methods had increases in BMD of 2.9% at 1 year and 9.5% at 2 years' follow-up.⁶⁰

A cross-sectional study found that BMD with DMPA use was significantly lower in young women (aged 18-21 years) compared to women aged over 21 years.⁵⁶ BMD decreased with increasing duration of DMPA use.⁵⁶ Small prospective studies in younger DMPA users (aged under 18 years) have confirmed a decrease in BMD in the spine^{53,60,61} and femoral neck.⁵³ BMD at the lumbar spine decreased by 3.8% after 18 months of DMPA use, compared to a 2.0% increase in normally menstruating young women.⁶¹ Moreover, when young women (aged 18-21 years) were followed up for 15 months after stopping DMPA, BMD was lower in previous DMPA users than in controls.⁶² Longer follow-up may have been required to allow BMD to recover to levels comparable to non-users.

Current evidence indicates a reduction in BMD with DMPA use, which may take longer to recover after stopping than in adults. The clinical significance of this reduction in BMD is unknown. Nevertheless, for some young women, injectable methods, which avoid reliance on daily pill taking, may be preferred. After counselling about the use of other contraceptive methods (which do not reduce BMD and may even have a positive effect), the CEU supports the WHOMECS recommendation that the benefits of DMPA in young people generally outweigh the risks.

Combined contraception. Current evidence supports a positive effect of COC on BMD in adults.⁶³ For young women, evidence suggests the COC has no negative effect^{56,59,63-66} and may even have a positive effect.^{60,67} In a prospective study of young women (aged 12-21 years), BMD increased by 1.5% after 1 year of oral contraceptive use.⁶⁰

Progestogen-only implants. A prospective study of young women (aged 12-21 years) using a levonorgestrel implant found that BMD increased by 2.5% after 1 year of use and by 9.3% after 2 years' use - similar results to women not using hormonal methods.⁶⁰ There are no data specific to the use of the etonorgestrel implant in young people. An open, prospective study found no change in BMD at the lumbar spine, femoral neck and distal radius in women

(aged 18-40 years) who had used either an etonorgestrel implant or a copper-bearing intrauterine contraceptive device (IUD) for 2 years.⁶⁸

Progestogen-only pill. No evidence was identified regarding the effect of POPs on BMD in young people.

Sexually transmitted infection

17 Young people should be advised that, when correctly used, condoms are effective in the prevention of human immunodeficiency virus (HIV) (Grade B).

18 Although evidence for a protective effect of condoms against STIs other than HIV is limited, young people should be advised on the consistent and correct use of condoms in the promotion of safer sex (Good Practice Point).

The prevalence of STIs in young sexually active people is high.³⁰ *Chlamydia trachomatis* was identified in 12% of girls aged less than 16 years and in 11% of girls aged 16-19 years attending genitourinary medicine (GUM) clinics.⁶⁹ Two pilot projects in Wirral and Portsmouth identified a prevalence of *C. trachomatis* of 10% in women aged less than 25 years attending family planning clinics, general practice, GUM clinics and abortion services.⁷⁰ *Neisseria gonorrhoea* is less common, even in GUM clinics (identified in 2% of girls aged less than 19 years).⁶⁹

Previous guidance from the CEU supports STI risk assessment (and offer of testing based on this risk assessment) for women attending for contraception.⁷¹⁻⁷⁴

Current or recent genital infection with *C. trachomatis* or *N. gonorrhoea* does not restrict the use of combined hormonal methods, or of POPs, implants or injectables (WHO 1).⁴⁰ No method of hormonal contraception provides protection against STIs, and the use of condoms in addition should be advocated for any sexually active young person.

The insertion of intrauterine contraception in the presence of current infection poses an unacceptable health risk (WHO Category 4).⁴⁰ Previous Guidance from the CEU suggested that after considering other contraceptive methods, a woman may use an IUD or levonorgestrel-releasing intrauterine system (LNG-IUS) within 3 months of treated pelvic or lower genital tract infection, provided she has no signs and symptoms.^{73,74} Safer sex and consistent condom use in addition to intrauterine methods should be promoted.⁷³

Condom use should be promoted to reduce the risk of STI. However, evidence to support their effectiveness in preventing transmission of all STIs is lacking because of poor study design, difficulty assessing consistent and correct condom use or because partner status is unknown. A Cochrane Review indicated that consistent use of male condoms reduces the incidence of HIV by 80% in men and women.^{75,76} Epidemiological studies suggest that consistent condom use reduces the risk of *N. gonorrhoea* in men.⁷⁶ There are insufficient data from laboratory-based studies to assess how effective male condoms are in preventing transmission of *N. gonorrhoea* in women, or *C. trachomatis*, *Trichomonas vaginalis* and syphilis in men and women.^{76,77} However, data obtained from a randomised trial investigating client-centred HIV and STI counselling suggested that self-reported, consistent condom use was associated with a reduced risk of *N. gonorrhoea* and *C. trachomatis*.⁷⁸ Data are limited on the effectiveness of condoms in preventing herpes simplex virus types I and II.^{75,79,80} Data on human papillomavirus

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(HPV) do not suggest a reduction in risk with condom use; but there may be a reduction in the risk of HPV-associated disease such as genital warts in men and cervical neoplasia in women.^{75,81} Despite limited evidence that condoms protect against STIs other than HIV, correct and consistent condom use should be promoted.

Recent evidence shows that condoms lubricated with non-spermicides are as effective in prevention of pregnancy and STIs as those lubricated with nonoxynol-9 and should be used first line.⁸²

How can a clinician optimise a young person's compliance with contraception?

Clinicians should aim to maximise a young person's compliance with contraception. This is facilitated by providing a wide and appropriate choice of methods, dealing with specific health concerns, discussing specific health benefits and providing appropriate follow-up. Other sections of this Guidance cover access to contraceptive advice and treatment and providing appropriate information and education.

Contraceptive choices

19 Age alone should not limit contraceptive choices for young people (Grade C).

20 A young person should be enabled to use her chosen method of contraception as long as there are no medical contraindications (Good Practice Point).

Hormonal methods. A clinician should advise each young woman about all contraceptive options to allow her to choose the method that she prefers. The COC is used by 20% of women aged 16–17 years who are using a contraceptive method, and the progestogen-only pill is used by 2%.⁸³ Long-term methods, which have fewer user-failures (progestogen-only injectable or implant), are used by only 2% of women aged 16–17 years.

Intrauterine devices. Although young women rarely use intrauterine methods⁸³ they may be suitable options for some and WHOMEC recommends that the benefits of intrauterine contraception outweigh the risks for women from menarche to age 20 years (WHO 2).⁴⁰

Condoms. For women aged 16–17 years, the male condom is the most commonly used method of contraception (27%).⁸³ No reliable data are available directly for men. A small American study identified that 8% of adolescents carried condoms. However, this did not predict condom use⁸⁴ and negotiating the use of condoms can be difficult.⁸⁵

Emergency contraception. One in five women aged 14–19 years had a record of emergency contraceptive (EC) use.⁸⁶ A primary care study showed that repeated use of EC over a 12-month period is uncommon (4%).⁸⁶ However, young women aged 14–19 years were most likely to be repeat users. The use of a regular method of hormonal contraception was lowest in the 14–19 year age group. Women attending for EC should be given information on the use of their regular contraceptive method of choice.⁷¹ Women should be fully counselled regarding the failure rates of oral and intrauterine EC to allow them to make informed decisions.⁷¹

A young woman may choose an emergency IUD, particularly if her risk of pregnancy is high (20–30% risk of pregnancy from a single act of unprotected intercourse between Days 10 and 17 of a regular 28-day cycle).⁷¹ An

IUD should be offered to all women attending for EC even if presenting within 72 hours of unprotected sexual intercourse.⁷¹ Age alone should not prevent IUD use as EC. However, for women at high risk of STIs (including those aged under 25 years) antibiotics and abstinence are advised after testing and pending results.⁷¹ Oral antibiotics effective against *C. trachomatis* are recommended: azithromycin 1 g stat or doxycycline 100 mg twice daily for 7 days are suitable regimens.⁷³

Addressing health benefits

Some of the health benefits of contraception have been presented in previous CEU Guidance.^{72–74}

Addressing health concerns

Qualitative research has found that young people commonly perceive hormonal contraceptives as unsafe.^{87–93} Specific health concerns include: infertility, cancer, blood clots, effects on growth and development, weight gain, mood changes, acne, heart attacks, birth defects, premature delivery, high blood pressure, nausea, vomiting, infection, irregular bleeding, amenorrhoea, headaches and hair loss.^{92–99} Cancer risk especially is perceived by many young people.^{87,97,98,100,101}

Gynaecological cancers

21 Young women may be advised that COC reduces the risk of ovarian and endometrial cancer and, with less than 5 years use, does not increase cervical cancer risk (Grade B).

22 Young women may be advised that DMPA does not appear to have any effect on ovarian, endometrial or cervical cancer risk (Grade B).

Studies on the risk of ovarian, endometrial and cervical cancer have not been specific to young people. A 30 µg COC reduced the risk of ovarian epithelial cancer by 40–50%.^{102,103} A hospital-based, case-control study did not identify any alteration in the risk of ovarian epithelial cancer with age at first use.¹⁰⁴ A 50 µg COC reduced the risk of endometrial cancer by 50%.^{105,106} A population-based, case-control study did not identify any significant effect of DMPA on the risk of ovarian or endometrial cancer [relative risk (RR) 0.8; 95% CI 0.1–4.6].¹⁰⁷

A systematic review of case-control and cohort studies¹⁰⁸ suggests no significant increased risk of invasive cervical cancer with use of oral contraception for <5 years (RR 1.29; 95% CI 0.88–1.91).¹⁰⁹ The risk increased with increasing duration of use.¹⁰⁹ However, individual case-control studies have not supported such an increased risk.¹¹⁰ Hospital-based, case-control studies have not found an increased risk of cervical cancer with DMPA use with 12 years' follow-up.^{111,112} No evidence for cancer risk in young people using other hormonal methods of contraception was identified.

Breast cancer

23 Young women should be advised that any increase in risk of breast cancer associated with hormonal contraception is small and there is no effect of duration of use (Grade B).

A meta-analysis of case-control studies showed overall a small increase in risk of being diagnosed with breast cancer while using COC (RR 1.24; 95% CI 1.15–1.33).¹¹³ A more recent population-based, case-control study showed no

increased risk of breast cancer with current COC use (RR, 1.0; 95% CI 0.8–1.3).¹¹⁴

A collaborative study showed an increased risk of developing breast cancer under the age of 35 years if oral contraception (progestogen-only and combined) was started before the age of 20 years than if started over the age of 20 years (RR 1.22, SD \pm 0.044).¹¹³ This very small increase in risk for breast cancer diagnosed at a young age was confirmed in re-analysis of these data.¹¹⁵ However, a subsequent population-based, case-control study did not confirm this finding.¹¹⁴ For women starting COC before the age of 20 years there appears to be no substantial increase in risk of breast cancer 5 years after cessation of COC.¹¹³ The risk of breast cancer associated with progestogen-only methods is less clear due to small numbers of women using these methods.

A pooled analysis from two case-control studies found that, overall, women who had used DMPA had no increased risk of breast cancer (RR 1.1; 95% CI 0.97–1.4).¹¹⁶ Current or recent DMPA use was associated with an increased risk (RR 2.0; 95% CI 1.5–2.8) and those who began DMPA use before the age of 25 years also had a small statistically significant increase in risk. However, these results are difficult to interpret and may reflect bias in patient selection.¹¹⁷ A smaller case-control study did not support an increased risk of breast cancer with injectable progestogen-only contraception (mostly DMPA) (RR 0.9; 95% CI 0.7–1.2).¹¹⁸

We identified no data specific to progestogen-only implants or the LNG-IUS and the risk of breast cancer in young women.

The CEU suggests that young women should be advised that any increase in risk of breast cancer associated with COC use is small, that there is no duration of use effect and that there are no consistent associations between injectable progestogens and risk of breast cancer.

Venous thromboembolism

24 Young women should be advised that although the risk of venous thromboembolism (VTE) increases with COC use the absolute risk is very low (Grade B).

25 Young women may be advised that progestogen-only contraceptives do not appear to increase the risk of VTE (Grade B).

Venous thromboembolism (VTE) is uncommon in women of reproductive age (5 per 100 000 woman-years). Studies on VTE and contraceptive hormones have not been specific to young people. The risk of VTE increases up to five-fold with COC use but the absolute risk remains small (15 per 100 000 woman-years with use of levonorgestrel or norethisterone COCs and 25 per 100 000 woman-years for desogestrel or gestodene COCs).¹¹⁹ In comparison, the risk of VTE in pregnancy is 60 per 100 000 woman-years. The increased risk of VTE is apparent within 4 months of starting and returns to that of non-users within 3 months of discontinuation.¹²⁰ Case-control studies have shown a reduction in VTE risk with increasing duration of use.^{121–124} This effect may be due to an undiagnosed thrombophilia being ‘unmasked’ when COC is started.

Few studies have been large enough to evaluate the risk of VTE with progestogen-only contraception (POC). This is partly because there is a low incidence of VTE in young women and also because of the relatively limited use of POCs worldwide. A WHO Collaborative Study collected data from Africa, Asia, Europe and Latin America and evaluated the risks of cardiovascular disease with the use of

oral and injectable POCs.¹²⁵ Potential biases in the study design are acknowledged.¹²⁶ Although limited by the small numbers of women using these methods, the data suggest that there is little or no increase in risk of VTE associated with use of oral or injectable progestogen-only methods. Data on VTE risk with progestogen-only implants, EC and the LNG-IUS are limited.

Weight gain

26 Young women may be advised that there is no evidence of weight gain with COC use (Grade B).

27 Young women may be advised that weight gain can occur with some progestogen-only methods, but may simply reflect the normal increase in weight expected during the early reproductive years (Grade C).

Concerns about weight gain are common among young women.¹²⁷ However, there is a normal increase in weight throughout the early reproductive years.¹²⁸ Studies investigating weight gain in women using hormonal contraception are limited by their retrospective design. A Cochrane Review did not support a causal association between COC and weight gain.¹²⁹ In studies specific to young women, one-third reported weight gain with COC use.¹³⁰ Studies in women aged 12.5–21 years showed increases in height, weight, body mass index (BMI) and percent body fat – but no significant differences between COC users and non-users.¹³¹ No significant increases in weight or BMI were found in young women (aged 11–20 years) using COC, DMPA or levonorgestrel-only implants at 6 months’ follow-up.¹³²

Average weight gain among young women using DMPA was in the range 4.8–12.2 lb.^{133–137} Two retrospective studies have suggested that baseline BMI is a good predictor of weight gain with DMPA use.^{134,136} Women who stopped DMPA before 1 year of use were not included and the results are likely to be biased.¹³⁶ A small, retrospective study found that 40% of DMPA users discontinued because of perceived weight gain.¹³⁸ An increase in BMI of 1.1 \pm 0.9 (p = 0.0005) was noted after 9.2 months’ use.

A small, retrospective study found that discontinuation of levonorgestrel-only implants due to weight gain was common (42%) and that BMI increased by 1.3 (p = 0.03). In a non-comparative study, one-third of levonorgestrel-only implant users (mean age 18.2 years) reported weight gain with 6 months’ use, averaging an increase of 3.74 kg.¹³⁹ Few etonorgestrel users reported weight gain (6.9%), yet the measured weight gain was at least 6.8 kg over 2 years.¹⁴⁰ Increased weight has also been noted with the levonorgestrel implant.¹⁴¹

Acne vulgaris

28 Young women can be advised that COCs may improve acne vulgaris (Grade B).

29 Young women should be advised that the occurrence of acne can be a reason for discontinuation of progestogen-only implants and injectables (Grade B).

30 Dianette® is indicated to treat severe acne which has not responded to oral antibiotics. It should be withdrawn 3–4 months after the treated condition has resolved or if there is no improvement (Grade C).

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Small, randomised trials have shown significant reductions in acne lesions with desogestrel or levonorgestrel COCs.^{142,143} A retrospective observational study using the General Practitioner Research Database found the cyproterone acetate-containing pill, Dianette® (Schering Healthcare), was favoured by GPs for young women (aged 13–19 years) with acne.¹⁴⁴ A case-control study, using data from the General Practice Research Database, has shown a four-fold increase in the risk of VTE with Dianette compared to COC containing levonorgestrel.¹⁴⁵ Duration of use did not affect this risk. In the UK, the Committee on the Safety of Medicines advises that Dianette is not indicated solely as a contraceptive; it is a treatment option for women with severe acne, which has not responded to oral antibiotics; or a treatment for moderately severe hirsutism. It should be withdrawn 3–4 months after the treated condition has resolved¹⁴⁶ or if there is no improvement.

Between 4.6%¹⁴¹ and 10%¹³⁸ of women discontinue levonorgestrel implants and DMPA due to acne.

Mood changes and depression

31 Young women should be advised that it is unclear whether hormonal contraception has an adverse effect on mood (Grade B).

Studies of mood changes are largely based on women's own perceptions, and are difficult to interpret. Two-thirds of young women (aged 14–19 years) anticipated mood changes with COC use.¹³⁰ However, only 9% experienced such symptoms. Mood change in young people (aged 15–21 years) using DMPA was investigated using the revised Beck Depression Inventory (BDI), a 21-item instrument designed to assess the severity of depression.^{147–149} Young women who had used DMPA for >12 months had a significantly higher BDI score compared to non-users.¹⁴⁹ In a retrospective study, fewer than one in ten women (aged 14–21 years) reported depression or mood swings with levonorgestrel-only implant use.¹⁴¹

Several studies have investigated the side effects of one method of contraception compared to another. Four times as many levonorgestrel-only implant users (aged 11–18 years) experienced emotional problems compared to COC users.¹⁴⁰ Twice as many levonorgestrel-only implant users (aged 13–21 years) reported mood changes compared to DMPA users, and many discontinued the method for that reason.¹³⁸ Among young women (aged 11–20 years), 57% of COC users, 53% of DMPA users and 27% of Norplant users reported depression over the first 6 months of use.¹³²

Appropriate follow-up

32 Young people should be encouraged to return at any time if they develop problems with contraception (Grade C).

33 A young woman should be advised to return for follow-up in the 3 months after the initiation of hormonal contraception. This allows side effects or other concerns to be addressed and helps ensure correct use of the method (Good Practice Point).

Young women should be encouraged to return at any time if they develop problems with their contraception.¹⁵⁰ Many young women wish to bring friends or a partner with them for first and subsequent visits. More frequent follow-up than for adult contraceptive users may be appropriate.¹⁵¹

How can clinicians ensure access to contraception for young people?

34 Sexual health providers should adapt services to meet the needs of young people (Grade C).

35 Services for vulnerable young people may be delivered within mainstream services with outreach facilities provided where appropriate (Grade C).

36 Young people attending any reproductive health care setting (e.g. postnatal wards, abortion services or GUM clinics) should have access to contraceptive advice and/or treatment (Grade C).

37 Reproductive health providers should engage in multi-agency working to promote services for young people (Good Practice Point).

38 Sexual and reproductive health services should support school nurses in their development and training (Good Practice Point).

A survey of opinion leaders in Europe and the USA identified that the ideal family planning service for young people should be accessible, comprehensive, multidisciplinary, confidential and provided by non-judgemental staff with good communication and counselling skills.¹⁵² Guidance on the provision of contraceptive and advice services for young people is available from the Teenage Pregnancy Unit.¹⁵³

The location of contraceptive services. A Scottish population survey found that even after taking account of social deprivation and geographical differences, rates of teenage pregnancy varied across the country.¹⁵⁴ This variation may be related to differences in the provision of contraception and this has implications for the rationalisation of services. Although a range of services may be available, opening times, geographical location and suitability of premises will influence use.

Many young people obtain contraceptive advice and treatment from their GPs.^{155–157} Services which cater specifically for young people have been shown to enhance contraceptive uptake,^{158,159} and living close to youth-orientated services may be associated with reduced teenage conceptions.^{160,153} Mainstream contraceptive services which provide specific outreach clinics have been advocated to target vulnerable young people.¹⁶¹ The location of a service influences how it is accessed and used. Young people may prefer a clinic within easy reach of their homes, while others prefer to travel further afield where they are less likely to be recognised.^{157,162} Clinics in non-medical settings, such as a city centre pharmacy, have been successful in allowing access to contraceptive advice and treatment by young people from a wide geographical area.¹⁶³ Extended opening times (particularly over lunchtimes) and drop-in clinics where no appointment is required have been shown to increase access for young people.^{153,161} Family planning services should work with other agencies to highlight other services available in the area which may be easier for young people to access.¹⁶⁴

Targeting vulnerable or hard to reach groups. NATSAL 2000 provides population information on sexual behavioural patterns which are a major determinant of sexual and reproductive health.⁴ Teenage pregnancy is associated with living in a deprived area,^{19,160} in local

authority care or homelessness, and being a child of young parents.¹⁹ Predictors of early intercourse for girls include: middle range socioeconomic status, mother having her first child under the age of 20 years, mid-range intelligence quotient, not being attached to school, in trouble at school, planning to leave school early or cigarette smoking.¹⁶⁵ Educational attainment is strongly associated with sexual competence and use of contraception at first intercourse⁴ – 29% of young women who left school at 16 years with no qualifications had a child by the age of 17 years. These groups of young people may not access mainstream services.

Young people with physical or learning disability may not have opportunities to access contraceptive advice and treatment. Services should consider how this could be improved locally. Contraceptive and sexual health advice services for black and ethnic minority young people should be considered.¹⁶⁶

Young men perceive family planning services as providing advice and treatment for women only.^{157,159} Services should promote and encourage access by young men.¹⁶⁷

Young mothers should be able to access appropriate contraceptive advice and/or treatment. Women should be able to access effective contraceptive methods following abortion.¹⁶⁸

Service providers should assess the needs of young users and adapt local services to meet these needs. However, improved access does not guarantee use and education and provision of information are also important. Reproductive health providers should engage in multi-agency working to promote services for young people.¹⁵³

Provision of contraceptive advice and treatment by school nurses. Throughout the UK the role of the school nurse varies. Many school nurses provide some or all sex and relationships education (SRE). Many nurses, however, have had little training or ongoing support and do not feel confident in their ability to provide this education effectively.¹⁶⁹ Some school nurses are able to provide contraceptive advice or treatment. However, this varies with the local authority. Family planning services may be able to facilitate training and continuing professional development for local school nurses.

Attitudes of all staff are particularly important in determining the use of services by young people.^{152,153,170-172} A cross-sectional survey in primary care found that rates of teenage pregnancy decreased when young people had access to female doctors or young doctors, or where there was more nurse time available.¹⁷³ Teenage-friendly general practices are being promoted.^{33,34}

How can clinicians ensure young people receive appropriate information on contraception?

39 Young people should have adequate time during consultations to address contraceptive and broader health issues (Grade C).

40 Contraceptive and sexual health services may develop links with education authorities and schools to promote and provide the planning, delivery and evaluation of sex and relationship education (Good Practice Point).

41 Sex and relationship education should be provided from childhood and within the context of emotional and social development (Grade C).

42 Any service providing contraception or sexual health advice should be able to provide young people with leaflets about contraception, sexual health and other lifestyle issues, appropriate website addresses and highlight other relevant local services for young people (Grade C).

The Faculty of Family Planning and Reproductive Healthcare (FFPRHC) *Service Standards for Workload in Contraception* suggests at least 20 minutes should be allocated to a GP or clinical team (doctor and nurse) for new consultations, first prescribing of hormonal contraception, or pregnancy counselling.¹⁷⁴ A desirable (ideal) standard is to allow extra time for those with special needs, such as the very young.

SRE involves pupils learning about sex, sexuality, emotions, relationships, sexual health and about themselves.¹⁷⁵ SRE should promote development in knowledge, skills, attitudes and values. The Sex Education Forum promotes SRE as an integral part of learning from childhood to adulthood provided within a holistic context of emotional and social development.¹⁷⁵ SRE should meet the needs of young people who are heterosexual, gay or lesbian, those with physical or learning disability, and those from different faiths.¹⁷⁵ Schools in England have a statutory requirement to follow national guidance on SRE.¹⁷⁶ In Scotland, however, the curriculum is not prescribed by statute and delivery and management are the responsibility of education and local authorities.¹⁷⁷ Health professionals may be involved in SRE delivery, planning or evaluation. Family planning services may develop links with educational authorities to promote and provide SRE.

NATSAL 2000 identified that school-based lessons are the main source of information about sexual matters for young people.⁴ SRE should empower young people to make positive choices regarding relationships and sex. SRE should be tailored to their needs at different stages in reproductive development.¹⁷⁵ SRE may be more effective when linked to contraceptive or other sexual health services.^{159,171} The APAUSE (Added Power and Understanding in Sex Education) project was established in 1990 and involves close collaboration between health professionals, teachers and young peer educators.¹⁵⁷ It is being continually evaluated. In this project, education begins from age 11 years, by teachers, and moves on to involvement of health professionals and peer educators (aged 16–19 years). Similar projects have been used elsewhere.^{178,153} Legislation and government policy on SRE varies throughout the UK and is summarised in a factsheet.¹⁷⁹

Other sources of information on contraception and sexual health include GPs, family planning and sexual health clinics, GUM clinics, youth groups, friends, the Internet and the media. Non-use of contraception at first intercourse was higher among young people who did not discuss sexual matters with parents and among those whose main source of information was friends.⁴ An Australian national survey provided data on contraceptive advice-seeking of young people aged between 15 and 17 years.¹⁸⁰ One in three young people had never sought advice from anyone. Parents and local doctors were the main source of advice. Other studies have also identified parents or other family members as key sources of contraceptive advice.^{181,182} Other sources included community health centres, health education classes, hospitals and private doctors,¹⁸¹ friends, family and school nurses.¹⁸² However, a Norwegian study of high school students aged 16–18 years identified that discussion with parents about contraception was less common than discussion with peers.¹⁸³

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Table 4 Internet sites that provide information sources for young people on sexual health, contraception, relationships and other lifestyle issues^a

Website name	Website address	Description
UK-based websites		
fpa	www.fpa.org.uk	Provides information on all aspects of sexual health, contraception, STI and abortion. Leaflets are available on a wide range of topics.
Brook Advisory Centres	www.brook.org.uk	The website of this national voluntary sector, which provides free and confidential sexual health advice and services specifically for young people under 25 years.
Caledonia Youth	www.caledoniayouth.org	Run by Caledonian Youth in Scotland and aimed at any young person wanting advice, information and support on any aspect of contraception and relationships. Leaflets are available such as 'Are you ready for sex?'
Healthy Respect	www.healthy-respect.com	A website for young people, parents and health professionals covering a wide range of information on contraception, sexual and reproductive health.
Let's Talk About Sex	www.lets-talk-about-sex.co.uk	Sexual health information for young people, run by school health nurses in West Cheshire. Gives details of nationwide helplines and support groups and information on contraception, STIs, abortion and HIV/AIDS. A dictionary and frequently asked question section are also included.
Lifebytes	www.lifebytes.gov.uk/index_flash.html	Third of the 'Wired For Health' Government sites for children aged 11–14 years (Key Stage 3). It is regularly updated and covers health topics such as smoking, sexual health, mental health, drugs and alcohol.
Mind, Body and Soul	www.mindbodysoul.gov.uk	The fourth 'Wired For Health' website, aimed at 14–16-year-olds (Key Stage 4). This covers health topics in more detail than Lifebytes with facts, figures and advice.
Loveliflife	www.lovelife.uk.com	A Health Promotion England site, which provides information on sexual health for young people aged 16–24 years. Gives advice on STIs and contraception, and provides details of sexual health clinics in the UK.
RUThinking The Site	www.ruthinking.co.uk www.thesite.org	Youth-orientated website. Magazine-style pages for young people aged 16–25 years. Deals with subjects such as drugs, embarrassing problems, sex and relationships and is produced and managed by Youth Net UK.
Teenage Health Freak	www.teenagehealthfreak.org/homepage/index.asp	Created by the authors of the books of the same name. The home page links to Pete Payne's dairy where his recent health problems are detailed and Dr Ann's surgery where health advice and information can be accessed.
US-based websites		
Teengrowth	www.teengrowth.com	Information service from the American Pediatric Alliance, provided by a team of doctors, educators and teenagers themselves. Wide ranges of topics are discussed including sexual health, emotions, drugs, alcohol and sports.
TeensHealth	www.kidshealth.org/teen	A project run by an American charitable organisation, the Nemours Foundation. These pages provide health articles for teenagers as well as information on areas such as body basics, mind matters, sexual health, food and fitness.
Sites specifically covering alcohol and drugs		
D-2K	www.d-2k.co.uk	Run by Health Promotion England, these pages provide information for 14–16-year-olds on drugs. Music and graphics are used to give facts and advice to young people as well as exploring some of the myths about drugs in relation to the law and health.
Trashed	www.trashed.co.uk/questions02.html	Drugs information from Health Promotion England for 15–19-year-olds. Gives details on the most common recreational drugs with sections on effects, risks, composition, origins and the law.
Wrecked	www.wrecked.co.uk	Information for teenagers aged 14–16 years on alcohol, provided by Health Promotion England. Gives facts and figures about alcohol as well as a quiz and a unit check out which assesses how much a man or woman can safely drink every week.

^aThis is not an exhaustive list and websites addresses are subject to change. STI, sexually transmitted infection.

Many young women obtain information on EC from friends, or school, but rarely from their parents.¹⁸⁴ Youth clinics, magazines or television were another source of information for 15 to 20 year olds.^{185,186}

The Internet has been identified as a practical and accessible way of delivering sexual health education to young people.¹⁸⁷ A number of NHS registered websites are available (Table 4).

There are wide variations in needs, levels, extent and manner of information provision. Written information complements face-to-face information.¹⁸⁸ A wide range of leaflets is available from organisations such as the fpa and Caledonia Youth, which provide user-friendly information for young men and women (Table 4). Services for young people should be able to facilitate access to other local services.

How can health professionals involve young people?

43 Young people should be involved in the development of contraceptive and sexual health services (Good Practice Point).

In developing the Green Paper, *Every Child Matters*,³⁹ the DfES also produced a young people's version for 13–18-year-olds.³⁹ This version highlighted that young people want to be involved in decisions which affect their lives.³⁹ The DfES have also provided a document entitled *Working Together: Giving Children and Young People a Say*¹⁸⁹ which covers pupil involvement in education, schools and communities. Some principles of involving children and young people in developing services more responsive to their needs are highlighted.¹⁸⁹ These principles are:

- the commitment to involving young people should be clear
- the outline of how to make this happen should be clear
- involvement is valued and will be evaluated and reviewed
- all young people should have an equal opportunity to be involved including those in vulnerable or hard to reach groups.

These principles may also be relevant for involving young people in developing contraceptive and sexual health services.¹⁵³

References

- 1 Department of Health. *The Children's Act 1989 – Guidance and Regulations*. London, UK: Department of Health, 1997. <http://www.lbcma.org.uk/guidelines2.pdf>.
- 2 *Children (Scotland) Act*. London, UK: The Stationery Office, 1995.
- 3 Teenage Pregnancy Unit. *Statistics – Conception Statistics for England, 1998–2001*. London, UK; Teenage Pregnancy Unit, Department of Health, 2001. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.
- 4 Wellings K, Nanchahal K, Macdowall W, et al. Sexual behaviour in Britain: early heterosexual experience. *Lancet* 2001; **358**: 1843–1850.
- 5 Department of Health. *The National Sexual Health Strategy for Health and HIV*. Implementation Action Plan. London, UK: Department of Health, 2002; 1–17.
- 6 Scottish Executive Proposal to the Scottish Executive. *Enhancing Sexual Wellbeing in Scotland. A Sexual Health and Relationships Strategy*. Edinburgh, UK: Scottish Executive, 2003. <http://www.scotland.gov.uk/sexualhealthstrategy/>.
- 7 General Medical Council (GMC). *Maintaining Good Medical Practice*. London, UK: GMC, 1998.
- 8 Medical Defence Unit (MDU). *Consent to Treatment*. London, UK: MDU Ltd, 1996.
- 9 Department of Health. *Reference Guide to Consent for Examination or Treatment*. London, UK: Department of Health, 2001. <http://www.doh.gov.uk>.
- 10 British Medical Association (BMA). *The Impact of the Human Rights Act 1998 on Medical Decision Making*. London, UK; BMA, 2000, 1. <http://www.bma.org.uk>.
- 11 General Medical Council (GMC). *Seeking Patient's Consent: The Ethical Considerations*. London, UK: GMC, 1998.
- 12 British Medical Association (BMA). *Consent Toolkit* (2nd edn). London, UK: BMA, 2003, 1–17. <http://www.bma.org.uk>.
- 13 Re C. *Refusal of Treatment*. 1WLR 290. 1994.
- 14 Her Majesty's Stationery Office (HMSO). *Age of Legal Capacity (Scotland) Act 1991*. London, UK: HMSO, 1991. http://www.legislation.hmso.gov.uk/acts/acts1991/ukpga_19910050_e2_1.htm.
- 15 Human and Constitutional Rights. *Gillick v West Norfolk and Wisbech AHA* (1986) AC 112, (1985) 3 WLR 830, (1985) 3 All ER 402, HL. http://www.hrcr.org/safrice/childrens_rights/Gillick_West_Norfolk.htm.
- 16 Age of Majority Act, 1985 No. 2/1985. <http://www.acts.ie>.
- 17 British Medical Association. *Adults with Incapacity (Scotland) Act 2000*. <http://www.scotland-legislation.hmso.gov.uk/legislation/scotland/acts2000/20000004.htm>. 2000.
- 18 British Medical Association. *Medical Treatment for Adults with Incapacity: Guidance on Ethical and Medico-legal Issues in Scotland*. <http://www.bma.org.uk/ap.nsf/Content/adults+with+incapacity+-+scotland>. 2002.
- 19 British Medical Association Board of Science and Education. *Adolescent Health*. London, UK: BMA Publications, 2003. <http://www.bma.org.uk>.
- 20 *Sexual Offences Act 2003*. Chapter 42. <http://www.legislation.hmso.gov.uk/acts/acts2003/20030042.htm>. 2004.
- 21 *Criminal Law (Consolidation) (Scotland) Act 1995 (c.39) Part 1 Sexual Offences*. ISBN 0105439959. London, UK: The Stationery Office, 2004.
- 22 Gordon GH. Chapters 33–36. In: Christie MGA (ed.), *The Criminal Law of Scotland*. Edinburgh, UK, W. Green, 2001; 507–555.
- 23 *Sexual Offences (Amendment) Act 2000*. London, UK: Queen's Printers of Acts of Parliament, Her Majesty's Stationery Office, 2000. <http://www.hmso.gov.uk/acts/acts2000/20000044.htm>.
- 24 Suffolk Area Child Protection Committee. *Guidance on Consent and Child Protection Issues for Those Involved in Promoting Young People's Sexual Health in Suffolk*. July 2002. <http://www.suffolkcc.gov.uk/sacpc/childProt.html>.
- 25 Wight D, Henderson M, Raab G, et al. Extent of regretted sexual intercourse among young teenagers in Scotland: a cross sectional survey. *BMJ* 2000; **320**: 1243–1244.
- 26 Dickson N, Paul C, Herbison S, et al. First sexual intercourse: age, coercion, and later regrets reported by a birth control cohort. *BMJ* 1998; **316**: 29–33.
- 27 Department of Health, Home Office, and Department of Education and Employment. *Working Together to Safeguard Children*. London, UK: The Stationery Office, 1999; 1: 1–119. <http://www.doh.gov.uk>.
- 28 Scottish Executive. *Protecting Children and Young People: Framework for Standards*. ISBN 0-7559-4087-3. Edinburgh, UK: Scottish Executive, 2004; 1–33.
- 29 Department of Health. *What To Do If You Are Worried a Child is Being Abused* (Summary). Children's Services Guidance: Best Practice Guidance. London, UK: Department of Health, 2003; 1–32. <http://www.dh.gov.uk/assetRoot/04/06/13/04/04061304.pdf>.
- 30 Thomas A, Forster G, Robinson A, et al. *National Guideline on the Management of Suspected Sexually Transmitted Infections in Children and Young People*. <http://www.bashh.org/ceguelines.html>. 2002.
- 31 British Medical Association (BMA). *Confidentiality and People Under 16*. Guidance issued jointly by the BMA, GMSC, HEA, Brook Advisory Centres, FPA and RCGP. London, UK: BMA Publications Online, 1994. <http://www.bma.org.uk>.
- 32 NHS Scotland. *NHS Code of Practice on Protecting Patient Confidentiality*. Edinburgh, UK: Scottish Executive, 2003. <http://www.scotland.gov.uk>.
- 33 Royal College of General Practitioners (RCGN) and Royal College of Nursing (RCN). *Getting it Right for Teenagers in Your Practice*. London, UK: RCGN with the RCN, 2002; 1–6. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.
- 34 Royal College of General Practitioners, General Practitioners Committee, British Medical Association, Royal College of Nursing, and Medical Defence Union. *Confidentiality and Young People. Improving Teenagers' Uptake of Sexual and Other Health Advice*. Publisher, Location, 2000; 1–61. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.
- 35 Teenage Pregnancy Unit. *Guidance for Youth Workers on Providing Information and Referring Young People to Contraceptive and Sexual Health Services*. London, UK: Teenage Pregnancy Unit, Department of Health, 2001; 1–15. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.
- 36 Department of Health. *BMA Conference of Medical Royal Colleges. Child Protection: Medical Responsibilities. Guidance for Doctors Working with Child Protection Agencies*. London, UK: Department of Health, 2000, 1994.
- 37 British Medical Association (BMA). *Confidentiality and Disclosure of Health Information*. London, UK: BMA Publications Online, 14 October 1999. <http://www.bma.org.uk>.
- 38 Department of Health. *Confidentiality. NHS Code of Practice*. London, UK: Department of Health, 2003.
- 39 Department for Education and Skills. *Every Child Matters*. 2004. London, UK: Department of Education and Skills. <http://www.dfes.gov.uk/everychildmatters/pdfs>.
- 40 World Health Organization (WHO). *Medical Eligibility Criteria for Contraceptive Use: Improving Access to Quality Care in Family Planning* (3rd edn). Geneva, Switzerland: WHO, 2004.
- 41 World Health Organization Task Force on Adolescent Reproductive Health. World Health Organization multicentre study on menstrual and ovulatory patterns in adolescent girls. II. Longitudinal study of menstrual patterns in the early postmenarcheal period, duration of bleeding episodes and menstrual cycles. *J Adolesc Health Care* 1986; **7**: 236–244.
- 42 Borsos A, Lampe L, Balogh A, et al. Ovarian function after the menarche and hormonal contraception. *Int J Gynaecol Obstet* 1988; **27**: 249–253.
- 43 Cromer B, Harel Z. Adolescents: at increased risk for osteoporosis? *Clin Pediatr* 2000; **39**: 565–574.
- 44 Theinz G, Buchs B, Nizzolo R, et al. Longitudinal monitoring of bone mass accumulation in health adolescents: evidence for a marked reduction after 16 years of age at the levels of lumbar spine and femoral neck in female subjects. *J Clin Endocrinol Metab* 1992; **75**: 1060–1065.
- 45 Matkovic V, Jelic T, Wardlaw GM. Timing of peak bone mass in Caucasian females and its implication for the prevention of osteoporosis: inference from a cross-sectional model. *J Clin Invest* 1994; **93**: 799–808.
- 46 Hergenroeder AC. Bone mineralization, hypothalamic amenorrhoea, and sex steroid therapy in female adolescents and young adults. *J Pediatr* 1995; **126**: 683–689.
- 47 Teegarden D, Proulx WR, Martin BR. Peak bone mass in young women. *J Bone Miner Res* 1995; **10**: 711–715.
- 48 O'Brien KO, Nathanson MS, Mancini J, et al. Calcium absorption is significantly higher in adolescents during pregnancy than in the early postpartum period. *Am J Clin Nutr* 2003; **78**: 1188–1193.
- 49 Bezerra FF, Laboissiere FP, King JC, et al. Pregnancy and lactation affect markers of calcium and bone metabolism differently in adolescent and adult women with low calcium intakes. *J Nutr* 2002; **132**: 2183–2187.
- 50 Chan GM, Ronald N, Slater P, et al. Decreased bone mineral status in lactating adolescent mothers. *Pediatrics* 1982; **101**: 767–770.
- 51 Lim SW, Rieder J, Coupey SM, et al. Depot medroxyprogesterone acetate use in inner-city, minority adolescents: continuation rates and characteristics of long-term users. *Arch Pediatr Adolesc Med* 1999; **153**: 1068–1072.
- 52 Zibners A, Cromer BA, Hayes J. Comparison of continuation rates for

CEU Guidance

- hormonal contraception among adolescents. *J Pediatr Adolesc Gynecol* 1999; **12**: 90-94.
- 53 Busen NH, Britt RB, Rianon N. Bone mineral density in a cohort of adolescent women using depot medroxyprogesterone acetate for one to two years. *J Adolesc Health* 2003; **32**: 257-259.
- 54 Banks E, Berrington A, Casabonne D. Overview of the relationship between use of progestogen-only contraceptives and bone mineral density. *Br J Obstet Gynaecol* 2001; **108**: 1214-1221.
- 55 Gbolade BA. Depo-Provera and bone density. Faculty Aid to CPD Topics (FACT). *J Fam Plann Reprod Health Care* 2002; **28**: 7-11.
- 56 Scholes D, LaCroix AZ, Ott SM, et al. Bone mineral density in women using depot medroxyprogesterone acetate for contraception. *Obstet Gynecol* 1999; **93**: 233-238.
- 57 Cundy T, Cornish J, Evans MC, et al. Recovery of bone density in women who stop using medroxyprogesterone acetate. *BMJ* 1994; **308**: 247-248.
- 58 Cundy T, Evans M, Roberts H, et al. Bone density in women receiving depot medroxyprogesterone acetate for contraception. *BMJ* 1991; **303**: 13-16.
- 59 Tharnprisan W, Taneepanichskul S. Bone mineral density in adolescent and young Thai girls receiving oral contraceptives compared with depot medroxyprogesterone acetate: a cross-sectional study in young Thai women. *Contraception* 2002; **66**: 101-103.
- 60 Cromer BA, McArdle Blair J, Mahan JD, et al. A prospective comparison of bone density in adolescent girls receiving depot medroxyprogesterone acetate (Depo-Provera), levonorgestrel (Norplant), or oral contraceptives. *J Pediatr* 1996; **129**: 671-676.
- 61 Edwards CP, Hertweck SP, Perlman SE, et al. A prospective study evaluating the effects of Depo Provera on bone mineral density in adolescent females: a preliminary report. *J Pediatr Adolesc Gynecol* 1998; **11**: 201-210.
- 62 Scholes D, LaCroix AZ, Ichikawa LE, et al. Injectable hormone contraception and bone density: results from a prospective study. *Epidemiology* 2002; **13**: 581-587.
- 63 Cromer B. Bone mineral density in adolescent and young adult women on injectable or oral contraception. *Curr Opin Obstet Gynecol* 2003; **15**: 353-357.
- 64 Lloyd T, Taylor DS, Lin HM. Oral contraceptive use by teenage women does not affect peak bone mass: a longitudinal study. *Fertil Steril* 2000; **74**: 734-738.
- 65 MacDougall J, Davies MC, Overton CE, et al. Bone density in a population of long-term oral contraceptive pill users does not differ from that in menstruating women. *Br J Fam Plann* 1999; **25**: 96-100.
- 66 Casterlo-Branco C, Vicente JJ, Pons F. Bone mineral density in young, hypothalamic oligomenorrhoeic women treated with oral contraceptives. *J Reprod Med* 2001; **46**: 875-879.
- 67 Polatti F, Perotti F, Filippa N. Bone mass and long-term monophasic oral contraceptive treatment in young women. *Contraception* 1995; **51**: 221-224.
- 68 Beerthuis R, van Beek A, Massai R, et al. Bone mineral density during long-term use of the progestogen contraceptive implant Implanon compared to a non-hormonal method of contraception. *Hum Reprod* 2000; **15**: 118-122.
- 69 The British Co-operative Clinical Group. Provision of sexual health care for adolescents in genitourinary medicine clinics in the United Kingdom. *Genitourin Med* 1997; **73**: 453-456.
- 70 Underhill G, Hewitt G, McLean L, et al. Who has chlamydia? The prevalence of genital tract *Chlamydia trachomatis* within Portsmouth and South East Hampshire, UK. *J Fam Plann Reprod Health Care* 2003; **29**(1): 17-20.
- 71 Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit. FFPRHC Guidance (April 2003). Emergency contraception. *J Fam Plann Reprod Health Care* 2003; **29**(2): 9-16.
- 72 Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit. FFPRHC Guidance (October 2003). First prescription of combined oral contraception. *J Fam Plann Reprod Health Care* 2003; **29**(4): 209-223.
- 73 Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit. FFPRHC Guidance (January 2004). The copper intrauterine device as long-term contraception. *J Fam Plann Reprod Health Care* 2004; **30**: 29-42.
- 74 Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit. FFPRHC Guidance (April 2004). The levonorgestrel-releasing intrauterine system (LNG-IUS) in contraception and reproductive health. *J Fam Plann Reprod Health Care* 2004; **30**: 99-108.
- 75 Weller S, Davis AR. Condom effectiveness in reducing heterosexual HIV transmission. The Cochrane Library, Issue 1, 2003 1, CD003255, 2002. <http://update-software.com> [Accessed 8 June 2004].
- 76 National Institute of Allergy and Infectious Diseases, National Institutes of Health Department of Health and Human Services. *Workshop Summary: Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease (STD) Prevention*. Bethesda, MD: Department of Health and Human Services, National Institutes of Health, 2000; 1-27. <http://www.niad.nhi.gov/dmid/stds/condomreport.pdf>.
- 77 Clinical Effectiveness Group (Association for Genitourinary Medicine and the Medical Society for the Study of Venereal Diseases). *Clinical Effectiveness Guideline for the Management of Chlamydia trachomatis Genital Tract Infection*. London, UK: BASHH, 2001. <http://www.bashh.org/guidelines/2002C4A%2009%2001c.pdf>.
- 78 Warner L, Newman DR, Austin HD, et al. Condom effectiveness for reducing transmission of gonorrhoea and chlamydia: the importance of assessing partner infection status. *Am J Epidemiol* 2004; **159**: 242-251.
- 79 Clinical Effectiveness Group (BASHH). *2001 National Guidelines for the Management of Genital Herpes*. <http://www.bashh.org/guidelines> [Accessed June 2004].
- 80 Casper C, Wald A. Condom use and the prevention of genital herpes acquisition. *Herpes* 2002; **9**: 10-14.
- 81 Clinical Effectiveness Group (BASHH). *National Guideline for the Management of Anogenital Warts*. <http://www.bashh.org/guidelines/hpv/%2003%2002b.pdf>. 2002.
- 82 World Health Organization (WHO). *WHO/CONRAD Technical Consultation on Nonoxynol-9*. Geneva, Switzerland: WHO, 2001.
- 83 Dawe F, Meltzer H. *Contraception and Sexual Health 2002*. London, UK: HMSO, 2003; 1-49. <http://www.statistics.gov.uk>.
- 84 DiClemente RJ, Wingwood GM, Crosby R, et al. Condom carrying is not associated with condom use and lower prevalence of sexually transmitted diseases among minority adolescent females. *Sex Transm Dis* 2001; **28**: 444-447.
- 85 Tulloch HE, McCaul KD, Miltenberger RG, et al. Partner communication skills and condom use among college couples. *J Am Coll Health* 2004; **52**: 263-267.
- 86 Ineichen B, Logie J, Rowlands S, et al. Patterns of prescription of PC4 by general practitioners in England and Wales. *Eur J Contracept Reprod Health Care* 2000; **5**: 241-247.
- 87 Clark LR. Will the pill make me sterile? Addressing reproductive health concerns and strategies to improve adherence to hormonal contraceptive regimens in adolescent girls. *J Pediatr Adolesc Gynecol* 2001; **14**: 153-162.
- 88 Davidson AR, Kalmuss D. Topics for our times: Norplant coercion - an overstated threat. *Am J Public Health* 1997; **87**: 550.
- 89 Peipert JF, Gutmann J. Oral contraceptive risk assessment: a survey of 247 educated women. *Obstet Gynecol* 1993; **82**: 112.
- 90 Silverman J, Torres A, Forrest JD. Barriers to contraceptive services. *Fam Plann Perspect* 1987; **19**: 94.
- 91 Davis AR, Teal SB. Controversies in adolescent hormonal contraception. *Obstet Gynecol Clin North Am* 2003; **30**: 391-406.
- 92 Scott CS, Shifman L, Orr L, et al. Hispanic and black American adolescents' beliefs relating to sexuality and contraception. *Adolescence* 1988; **XXIII**: 667-688.
- 93 Tanfer K, Wierzbicki S, Payn B. Why are U.S. women not using long-acting contraceptives? *Fam Plann Perspect* 2000; **32**: 176-183.
- 94 Cushman LF, Davidson AR, Kalmuss D, et al. Beliefs about Norplant® implants among low income urban women. *Contraception* 1996; **53**: 285-291.
- 95 Gold MA, Coupey SM. Young women's attitudes toward injectable and implantable contraceptives. *J Pediatr Adolesc Gynecol* 1998; **11**: 17.
- 96 Wiemann CM, Berenson AB. An investigation into why adolescents may reject Norplant. *Pediatrics* 1996; **97**: 185-191.
- 97 Moore PJ, Adler NE, Kegeles SM. Adolescents and the contraceptive pill: the impact of beliefs on intentions and use. *Obstet Gynecol* 1996; **88**: 48S-56S.
- 98 Kuiper H, Miller S, Martinez E, et al. Urban adolescent females' views on the implant and contraceptive decision-making: a double paradox. *Fam Plann Perspect* 1997; **29**: 167-172.
- 99 Herold E, Goodwin M. Perceived side effects of oral contraceptives among adolescent girls. *Can Med Assoc J* 1980; **123**: 1022-1023.
- 100 Balassone ML. Risk of contraceptive discontinuation among adolescents. *J Adolesc Health* 1989; **10**: 527.
- 101 Zabin LS, Stark HA, Emerson MR. Reasons for delay in contraceptive clinic utilization. Adolescent clinic and non-clinic populations compared. *J Adolesc Health* 1991; **12**: 225.
- 102 International Agency for Research on Cancer (IARC). *Monographs on the Evaluation of Carcinogenic Risks to Humans. Hormonal Contraception and Postmenopausal Hormonal Therapy*. Lyon, France: WHO IARC, 1999.
- 103 Ness RB, Grisso JA, Klapper J, et al. Risk of ovarian cancer in relation to estrogen and progestogen dose and use characteristics of oral contraceptives. *Am J Epidemiol* 2000; **152**: 233-241.
- 104 The World Health Organization (WHO) Collaborative Study of Neoplasia and Steroid Contraceptives. Depot-medroxyprogesterone acetate (DMPA) and risk of epithelial ovarian cancer. *Int J Cancer* 1991; **49**: 191-195.
- 105 Jick SS, Walker AM, Jick H. Oral contraceptives and endometrial cancer. *Obstet Gynecol* 1993; **82**: 931-935.
- 106 Cancer and Steroid Hormones (CASH). Combined oral contraceptive use and risk of endometrial cancer. *JAMA* 1987; **257**: 796-800.
- 107 Liang AP, Levenson AG, Layde PM, et al. Risk of breast, uterine corpus, and ovarian cancer in women receiving medroxyprogesterone injections. *JAMA* 1983; **249**: 2909-2912.
- 108 Smith JS, Green J. Cervical cancer and use of hormonal contraception: a systematic review. *Lancet* 2003; **361**: 1159-1167.

- 109 Moreno V, Bosch FX, Munoz N. Effects of oral contraceptives on risk of cervical cancer in women with human papilloma virus infection: the IARC multicentric case-control study. *Lancet* 2002; **399**: 1085-1092.
- 110 Shapiro S, Rosenberg L, Hoffman M, et al. Risk of invasive cancer of the cervix in relation to the use of injectable progestogen contraceptives and combined estrogen/progestogen oral contraceptives (South Africa). *Cancer Causes Control* 2003; **14**: 485-495.
- 111 Thomas DB, Ye Z, Ray RM. Cervical carcinoma *in situ* and use of depot-medroxyprogesterone acetate (DMPA). WHO Collaborative Study of Neoplasia and Steroid Contraceptives. *Contraception* 1995; **51**: 25-31.
- 112 Thomas DB, Ray RM. Depot-medroxyprogesterone acetate (DMPA) and risk of invasive adenocarcinomas and adenosquamous carcinomas of the uterine cervix. WHO Collaborative Study of Neoplasia and Steroid Contraceptives. *Contraception* 1995; **52**: 307-312.
- 113 Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and hormonal contraceptives: collaborative reanalysis of individual data on 53 297 women with breast cancer and 100 239 women without breast cancer from 54 epidemiological studies. *Lancet* 1996; **347**: 1713-1727.
- 114 Marchbanks PA, McDonald JA, Wilson HG, et al. Oral contraceptives and the risk of breast cancer. *N Engl J Med* 2002; **346**: 2025-2032.
- 115 Wingo PA, Lee NC, Ory HW, et al. Age-specific differences in the relationship between oral contraceptive use and breast cancer. *Cancer* 1993; **71**: 1506-1517.
- 116 Skegg DC, Noonan EA, Paul C, et al. Depot medroxyprogesterone acetate and breast cancer. A pooled analysis of the World Health Organization and New Zealand studies. *JAMA* 1995; **273**: 799-804.
- 117 Chilvers CE. Depot medroxyprogesterone acetate and breast cancer. A review of current knowledge. *Drug Saf* 1996; **15**: 212-218.
- 118 Shapiro S, Rosenberg L, Hoffman M, et al. Risk of breast cancer in relation to the use of injectable progestogen contraceptives and combined estrogen/progestogen contraceptives. *Am J Epidemiol* 2000; **151**: 396-403.
- 119 Committee on Safety of Medicines (CSM). Combined oral contraceptives containing desogestrel or gestodene and the risk of venous thromboembolism. *Current Problems in Pharmacovigilance* 1999; **25**: 1-2.
- 120 World Health Organization (WHO). Effect of different progestogens in low oestrogen containing oral contraceptives on venous thromboembolism. WHO Collaborative Study of Cardiovascular Disease and Steroid Hormone Contraception. *Lancet* 1995; **346**: 1575-1582.
- 121 Jick H, Kaye JA, Vasilakis-Scaramozza C, et al. Risk of venous thromboembolism among users of third generation oral contraceptives compared with users of oral contraceptives with levonorgestrel before and after 1995: cohort and case-control analysis. *BMJ* 2000; **321**: 1190-1195.
- 122 Lidegaard O, Edstrom B, Kreiner S. Oral contraceptives and venous thromboembolism: a five-year national case-control study. *Contraception* 2002; **65**: 187-196.
- 123 Suissa S, Blais L, Spitzer WO, et al. First-time use of newer oral contraceptives and the risk of venous thromboembolism. *Contraception* 1997; **56**: 141-146.
- 124 Lewis MA, Heinemann L, MacRae KD, et al. The increased risk of venous thromboembolism and the use of third generation progestagens; role of bias in observational research. *Contraception* 1996; **54**: 5-13.
- 125 World Health Organization (WHO). Cardiovascular disease and use of oral and injectable progestogen only contraceptives and combined injectable contraceptives. Results of an international, multicentre, case control study. *Contraception* 1998; **57**: 315-324.
- 126 World Health Organization (WHO). Venous thromboembolic disease and combined oral contraceptives: results of a multicentre case-control study. WHO Collaborative Study of Cardiovascular Disease and Steroid Hormone Contraception. *Lancet* 1996; **345**: 1575-1582.
- 127 Emans SJ, Grace E, Woods ER, et al. Adolescents' compliance with the use of oral contraceptives. *JAMA* 1987; **257**: 3377-3381.
- 128 Malina R. Normal weight gain in growing children. *Healthy Weight Journal* 1999; **13**: 1-4.
- 129 Gallo MF, Grimes DA, Schulz KF, et al. Combination contraceptives: effects on weight. The Cochrane Library, Issue 4, 2003. <http://update-software.com> [Accessed May 2004].
- 130 Rosenthal SL, Cotton S, Ready JN, et al. Adolescents' attitudes and experiences regarding levonorgestrel 100 mcg/ethinyl estradiol 20 mcg. *J Pediatr Adolesc Gynecol* 2002; **15**: 301-305.
- 131 Lloyd T, Lin HM, Matthews AE, et al. Oral contraceptive use by teenage women does not affect body composition. *Obstet Gynecol* 2002; **100**: 235-239.
- 132 Cromer BA, Smith RD, McArdle Blair J, et al. A prospective study of adolescents who choose among levonorgestrel implant (Norplant), medroxyprogesterone acetate (Depo-Provera), or the combined oral contraceptive pill as contraception. *Pediatrics* 1994; **94**: 687-694.
- 133 Polaneczky M, Liblanc M. Long-term depot medroxyprogesterone acetate (Depo-Provera) use in inner-city adolescents. *J Adolesc Health* 1998; **23**: 81-88.
- 134 Mangan SA, Larsen PG, Hudson S. Overweight teens at increased risk for weight gain while using depot medroxyprogesterone acetate. *J Pediatr Adolesc Gynecol* 2002; **15**: 79-82.
- 135 Matson SC, Henderson KA, McGrath GJ. Physical findings and symptoms of depot medroxyprogesterone acetate use in adolescent females. *J Pediatr Adolesc Gynecol* 1997; **10**: 18-23.
- 136 Risser WL, Gefter LR, Barratt MS, et al. Weight changes in adolescents who use hormonal contraception. *J Adolesc Health* 1999; **24**: 433-436.
- 137 Templeman C, Boyd H, Hertweck SP. Depomedroxyprogesterone acetate use and weight gain among adolescents. *J Pediatr Adolesc Gynecol* 2000; **13**: 45-46.
- 138 Harel Z, Biro FM, Kollar LM, et al. Adolescents' reasons for and experience after discontinuation of the long-acting contraceptive Depo-Provera and Norplant. *J Adolesc Health* 1996; **19**: 118-123.
- 139 Cardamakis E, Georgopoulos A, Fotopoulos A, et al. Clinical experience with Norplant subdermal implant system as long-term contraception during adolescence. *Eur J Contracept Reprod Health Care* 2002; **7**: 36-40.
- 140 Berenson AB, Wiemann CM, Rickerr VI, et al. Contraceptive outcomes among adolescents prescribed Norplant implants versus oral contraceptives after one year of use. *Am J Obstet Gynecol* 1997; **176**: 586-592.
- 141 Suman VJ, Van Winter JT, Evans MP, et al. Levonorgestrel contraceptive implants in female patients 14 to 21 years old. *Mayo Clin Proc* 1998; **73**: 10-16.
- 142 Rosen MP, Breitkopf DM, Nagamani M. A randomized controlled trial of second- versus third-generation oral contraceptives in the treatment of acne vulgaris. *Am J Obstet Gynecol* 2003; **188**: 1158-1160.
- 143 Leyden J, Shalita A, Hordinsky M, et al. Efficacy of a low dose oral contraceptive containing 20 microg of ethinyl oestradiol and 100 microg of levonorgestrel for the treatment of moderate acne: a randomized, placebo-controlled trial. *J Am Acad Dermatol* 2002; **47**: 399-409.
- 144 Rowlands S, Devalia H, Lawrenson R. Preferential prescribing of type of combined oral contraceptive pill by general practitioners to teenagers with acne. *Eur J Contracept Reprod Health Care* 2001; **6**: 9-13.
- 145 Vasilakis-Scaramozza C, Jick H. Risk of venous thromboembolism with cyproterone or levonorgestrel contraceptives. *Lancet* 2001; **358**: 1427-1429.
- 146 Committee on Safety of Medicines (CSM). Cyproterone acetate (Dianette): risk of venous thromboembolism (VTE). *Current Problems in Pharmacovigilance* 2002; **28**: 9-10.
- 147 Piotrowski C, Sherry D, Keller JW. Psychodiagnostic test usage: a survey of the Society for Personal Assessment. *J Pers Assess* 1985; **49**: 115.
- 148 Steer RA, Beck AT, Garrison B. Applications of the Beck Depression Inventory. In: Sartorius N, Ban TA (eds), *Assessment of Depression*. New York, NY: Springer-Verlag, 1985; 121.
- 149 Gupta N, O'Brien R, Jacobsen LJ, et al. Mood changes in adolescents using depot-medroxyprogesterone acetate for contraception: a prospective study. *J Pediatr Adolesc Gynecol* 2001; **14**: 71-76.
- 150 World Health Organization (WHO). *Selected Practice Recommendations for Contraceptive Use*. Geneva, Switzerland: WHO, 2002.
- 151 Faculty of Family Planning and Reproductive Health Care (FFPRHC). *UK Selected Practice Recommendations for Contraceptive Use*. London, UK: FFPRHC, 2002. <http://www.ffprhc.org.uk>.
- 152 Cromer BA, McCarthy M. Family planning services in adolescent pregnancy prevention: the views of key informants in four countries. *Fam Plann Perspect* 1999; **31**: 287-293.
- 153 Teenage Pregnancy Unit, Department of Health. *Best Practice Guidance on the Provision of Effective Contraception and Advice Services for Young People*. London, UK: Teenage Pregnancy Unit, Department of Health, 2002; 1-5. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.
- 154 McLeod A. Changing patterns of teenage pregnancy: population based study of small areas. *BMJ* 2001; **323**: 199-203.
- 155 Rowlands S. Raising standards in family planning services. *Br J Gen Pract* 1991; **41**: 138-139.
- 156 Hughes D, McGuire A. The cost effectiveness of family planning service provision. *J Public Health Med* 1996; **18**: 189-196.
- 157 Social Exclusion Unit. *Teenage Pregnancy*. London, UK: The Stationery Office, 1999.
- 158 Glasier A. *Sexual Health Services for Young People. Young People and Sexual Health*. Edinburgh, UK: Health Education Board for Scotland, 2002.
- 159 Scottish Executive. *Enhancing Sexual Wellbeing in Scotland: A Sexual Health and Relationships Strategy Supporting Paper 5B: Supporting Access to Clinical Services and Reaching Those in Need*. 2003. <http://www.scotland.gov.uk/library5/health/esws-00.asp>.
- 160 Clements S, Stone N, Diamond I, et al. Modelling the spatial distribution of teenage conception rates within Wessex. *J Fam Plann Reprod Health Care* 1998; **24**: 61-71.
- 161 Baraitser P, Fettiplace R, Massil H, et al. Quality, mainstream services with proactive and targeted outreach: a model of contraceptive

CEU Guidance

service provision for young people. *J Fam Plann Reprod Health Care* 2002; **28**: 90–94.

162 Garside R, Ayres R, Owen M, et al. Anonymity and confidentiality: rural teenagers' concerns when accessing sexual health services. *J Fam Plann Reprod Health Care* 2002; **28**: 23–26.

163 McAllister KF, Elliot L, Thomson DAM, et al. Evaluation of a young person's sexual health service in a commercial setting. *J Fam Plann Reprod Health Care* 2002; **28**: 203–205.

164 Teenage Pregnancy Unit. *Developing Checklists: Guidance for Local Teenage Pregnancy Co-ordinators*. London, UK: Teenage Pregnancy Unit, Department of Health, 2001; 1–11. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.

165 Paul C, Fitzjohn J, Herbison P, et al. The determinants of sexual intercourse before age 16. *J Adolesc Health* 2000; **27**: 136–147.

166 Teenage Pregnancy Unit. *Guidance for Developing Contraception and Sexual Health Advice to Reach Black and Minority Ethnic (BME) Young People*. London, UK: Teenage Pregnancy Unit, Department of Health, 2001; 1–48. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.

167 Teenage Pregnancy Unit. *Guidance for Developing Contraception and Sexual Health Advice Services to Reach Boys and Young Men*. London, UK: Teenage Pregnancy Unit, Department of Health, 2000; 1–52. <http://www.info.doh.gov.uk/tpu/tpu.nsf>.

168 Royal College of Obstetricians and Gynaecologists (RCOG). *The Care of Women Requesting Induced Abortion*. London, UK; RCOG Press, 2004 (in press).

169 McFadyen J. Teaching sex education: are Scottish school nurses prepared for the challenge? *Nurse Educ Today* 2004; **24**: 113–120.

170 Butler R, Solomon S. *Review of Sexual Health Services for Young People in Scotland*. Edinburgh, UK: Health Education Board for Scotland, 2002. <http://www.hebs.scot.nhs.uk/research/pdf/RE02820002001Final.pdf>.

171 Hosie A. *Sexual Health Policy Analysis in Selected European Countries*. Edinburgh, UK: Health Education Board for Scotland, 2002.

172 Brook. *Someone With a Smile Would be Your Best Bet*. London, UK: Brook Publications, 2004. <http://www.brook.org.uk>.

173 Hippisley-Cox J, Allen J, Pringle M, et al. Association between teenage pregnancy rates and the age and sex of general practitioners: cross sectional survey in Trent 1994–7. *BMJ* 2000; **320**: 842–845.

174 Faculty of Family Planning and Reproductive Health Care (FFPRHC). *Service Standards for Work in Contraception*. London, UK: FFPRHC, 2004.

175 Sex Education Forum. *Sex and Relationships Education Framework*. Forum Factsheet 30. London, UK: National Children's Bureau for the Sex Education Forum, 2003, 1–4. <http://www.ncb.org.uk/sef>.

176 Department for Education and Environment (DfEE). *Sex and Relationship Education Guidance*. Nottingham, UK: DfEE Publications, 2000; 1–35. <http://www.dfes.gov.uk/sreguidance/sexeducation.pdf>.

177 Scottish Executive. *Sex Education in Scottish Schools: Summary of National Advice*. Queen's Printers for Scotland, 2004.

178 Scottish Executive. *National Health Demonstration Projects' Annual Report 2001 – Learning to Make a Difference*. 2001. <http://www.scotland.gov.uk/library5/health/ltmd-00.asp>.

179 fpa. *Sex and Relationships Education*. Factsheet No. 10. London, UK: fpa, 2004.

180 Lindsay J, Smith AMA, Rosenthal DA. Conflicting advice? Australian adolescents' use of condoms or the pill. *Fam Plann Perspect* 1999; **31**: 190–194.

181 Hacker KA, Amare Y, Strunk N, et al. Listening to youth: teen perspectives on pregnancy prevention. *J Adolesc Health* 2000; **26**: 279–288.

182 Olsen CL, Santarsiero EC, Spatz D. Qualitative analysis of African-American adolescent females' beliefs about emergency contraceptive pills. *J Pediatr Adolesc Gynecol* 2002; **15**: 285–292.

183 Hansen T, Skjeldestad FE. Communication about contraception and knowledge of oral contraceptives amongst Norwegian high school students. *J Adolesc* 2003; **26**: 481–493.

184 Aneblom G, Larsson M, Odland V, et al. Knowledge, use and attitudes towards emergency contraceptive pills among Swedish women presenting for induced abortion. *Br J Obstet Gynaecol* 2002; **109**: 155–160.

185 Haggstrom-Nordin E, Tyden T. Swedish teenagers' attitudes toward the emergency contraceptive pill. *J Adolesc Health* 2001; **28**: 313–318.

186 Graham A, Green L, Glasier AF. Teenagers' knowledge of emergency contraception: questionnaire survey in south east Scotland. *BMJ* 1996; **312**: 1567–1569.

187 Goold PC, Ward M, Carlin EM. Can the Internet be used to improve sexual health awareness in web-wise young people? *J Fam Plann Reprod Health Care* 2003; **29**(1): 28–30.

188 Kane R, Macdowall W, Wellings K. Providing information for young people in sexual health clinics: getting it right. *J Fam Plann Reprod Health Care* 2003; **29**(3): 141–145.

189 Department for Education and Skills. *Working Together: Giving Children and Young People a Say (Consultation)*. London, UK: Department for Education and Skills. http://www.dfes.gov.uk/consultations2/18/docs/WORKING_TOGETHER.doc. 2003.

This Guidance was developed by the Clinical Effectiveness Unit (CEU) of the Faculty of Family Planning and Reproductive Health Care (FFPRHC): Dr Gillian Penney (Director), Dr Susan Brechin (Co-ordinator), Ms Alison de Souza and Ms Gillian Stephen (Research Assistants) in consultation with the Clinical Effectiveness Committee, which includes service user representation and a multidisciplinary Expert Group of health care professionals involved in family planning and reproductive health care. The multidisciplinary Expert Group comprised: Dr Audrey Brown (Consultant in Sexual and Reproductive Health, The Sandyford Initiative, Glasgow), Mr David Coulter (Education Policy Advisor, National Society for the Protection of Children), Ms Nan Cameron (Community School Nurse, NHS Grampian, Portlethen Academy, Aberdeen), Dr Ruth Howlett-Shipley (Specialist Registrar in Public Health Medicine, Dorset/Trainee Member of the CEU), Ms Margaret McArthur (Nurse Manager, Team Leader, Square 13 Family Planning and Reproductive Health Services, Aberdeen), Dr Louise Massey (Specialist Registrar in Public Health/FFPRHC Education Committee Member), Ms Louise McKay (Senior Health Promotion Specialist, Healthy Respect Project, Lothian), Dr Poornima Prabhu (Clinical Medical Officer, Family Planning, Cardiff), Ms Fiona Rennie (Community School Nurse, NHS Grampian, Aberdeenshire) and Ms Gillian Walker (Client Services Manager, Caledonian Youth, Scotland). Written feedback was provided by: Ms Toni Belfield (Director of Information, fpa, London), Mr James Chalmers (Lecturer in Criminal Law, Aberdeen University, Aberdeen), Dr Alyson Elliman (Chairperson, FFPRHC Education Committee), Dr Meera Kishen (FFPRHC Council), Mrs Myra Lamont (Associate Director of Nursing and local lead of child protection policy for The Sandyford Initiative, Glasgow), Dr Joanne Protheroe (General Practitioner/FFPRHC Clinical Effectiveness Committee Member) and Ms Stephanie Whitehead (Policy and Development Manager, Brook, London, on behalf of the Policy and Development Team and Medical Spokesperson).

This Guidance is also available online at www.ffprhc.uk. Evidence tables are available on the FFPRHC website. These summarise relevant published evidence on contraception in young people, which was identified and appraised in the development of this Guidance. The clinical recommendations within this Guidance (i.e. the text appearing within the blue and red boxes) are based on evidence whenever possible.

Grades of Recommendations	
A	Evidence based on randomised controlled trials (RCTs)
B	Evidence based on other robust experimental or observational studies
C	Evidence is limited but the advice relies on expert opinion and has the endorsement of respected authorities
	Good Practice Point where no evidence exists but where best practice is based on the clinical experience of the Expert Group

Electronic searches were performed for: MEDLINE (CD Ovid version) (1990–2004); EMBASE (1990–2004); PubMed (1990–2004); The Cochrane Library (to April 2004) and the US National Guideline Clearing House. The searches were performed using relevant medical subject headings (MeSH), terms and text words. The Cochrane Library was searched for systematic reviews, meta-analyses and controlled trials relevant to contraception for young people. Previously existing guidelines from the Faculty of Family Planning and Reproductive Health Care (FFPRHC), the Royal College of Obstetricians and Gynaecologists (RCOG), the World Health Organization (WHO), the Department of Health, the British Medical Association, the Royal College of Nursing, the Royal College of General Practitioners and reference lists of identified publications were also searched. Similar search strategies have been used in the development of other national guidelines. Selected key publications were appraised according to standard methodological checklists before conclusions were considered as evidence. Evidence was graded as above, using a scheme similar to that adopted by the RCOG and other guideline development organisations.