ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS

The Care of Women requesting Induced Abortion

Evidence-based Clinical Guideline Number 7

Draft for Peer Review

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Contents

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Abbreviations

ACOG	American College of Obstetricians and Gynaecologists
bpas	British Pregnancy Advisory Service
BMA	British Medical Association
BMI	body mass index
CCT	controlled clinical trial
CE	*conformité européenne*
CMO	Chief Medical Officer
D&E	dilatation and evacuation
DH	Department of Health
ECHR	European Court of Human Rights
EEC	European Economic Community
EPIC	European Prospective Study on the Investigation into Cancer
EVA	electric vacuum aspiration
fpa	Family Planning Association
FSRH	Faculty of Sexual & Reproductive Healthcare
GDG	Guideline Development Group
GP	General Practitioner
GTN	gestational trophoblastic neoplasia
hCG	human chorionic gonadotropin
HFEA	Human Fertilisation and Embryology Authority
iu	International Unit
IUD	intrauterine device
IUS	intrauterine system
LARC	long acting reversible contraceptive
LMP	last menstrual period
MedFASH	Medical Foundation for AIDS & Sexual Health
MeSH	medical subject headings
mg	milligram
µg	microgram
mm	millimiter
MeSH	medical subject headings
ml	milliliter
MSI	Marie Stopes International
MVA	manual vacuum aspiration
NHS	national health service
NHSCSP	NHS Cancer Screening Programmes
NICE	National Institute for Health and Clinical Excellence
NSAID	nonsteroidal anti-inflammatory drug
PID	pelvic inflammatory disease
RCGP	Royal College of General Practitioners
RCN	Royal College of Nursing
RCOG	Royal College of Obstetricians and Gynaecologists
RCT	randomised controlled trial
Rh	rhesus
SFP	Society for Family Planning
STI	sexually transmitted infection
VTE	venous thromboembolism
WHO	World Health Organization

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Development of the guideline

The RCOG guideline on *The Care of Women Requesting Induced Abortion* was first published in 2000. An updated version followed in 2004 and this guideline served until this revision which took place during 2010. This was prompted mainly by a recommendation of the House of Commons Science and Technology Committee which in 2007 had considered *Scientific Developments relating to the Abortion Act 1967*.[1]

The revision of the guideline was undertaken by a multi-professional group which was again supported by the Department of Health (DH). Members of the Group included representatives of the Royal College of Obstetricians and Gynaecologists (RCOG), the Faculty of Sexual and Reproductive Health (FSRH), the Royal College of General Practitioners (RCGP), the Royal College of Nursing (RCN), as well as Commissioners and Providers of abortion services within the NHS and the independent sector, and a member of the RCOG Consumers' Forum.

All members of the Group made formal declarations of interest and this record is kept on file. The College was of the opinion that in each case the interests declared did not conflict with the guideline development process.

The members were:

Professor Anna Glasier FRCOG (Chair), University of Edinburgh, RCOG nominee
Ms Toni Belfield, RCOG Consumers' Forum representative
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Ms Lisa Westall, Department of Health

The Group wishes to acknowledge the substantive work on the first two guideline versions led by Dr Gillian Penney. The Group was fortunate that during 2009/10 the Human Reproduction Programme of the World Health Organization (WHO) undertook a formal exercise to update its own guidelines for safe abortion (*Safe Abortion: Technical and Policy Guidance for Health Systems*).[2] The WHO kindly made available to the RCOG all of the updated systematic reviews of the evidence prepared for the WHO process and Dr Nathalie Kapp, Medical Officer in the WHO Department of Reproductive Health, attended a number of meetings of the Guideline Development Group (GDG).

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Peer reviewers

Comments were received from the following individuals during the peer review stage. A summary table of comments received and actions taken is available on request from the RCOG.

To be added

Acknowledgements

The GDG wishes to thank Mrs Charnjit Dhillon, Director of Standards and Miss Benedetta La Corte, ORCA Coordinator, for their very considerable work and support. Ms Elaine Garrett, RCOG Reader Services Librarian, assisted with the relevant literature.

The Group is also grateful to the Society for Family Planning (SFP) of the USA who kindly shared a number of recent systematic reviews of relevance prior to their publication.

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Chapter 1

Introduction and methodology

1.1 The guideline topic

Induced abortion is common; over 200,000 procedures are performed each year in Great Britain[3, 4] and at least one third of British women will have had an abortion by the time they reach the age of 45 years.[5] Abortion accounts for a significant proportion of the workload of gynaecologists. The RCOG views induced abortion as a healthcare need and reiterates the recommendation of the RCOG Working Party on Unplanned Pregnancy (1991) [6] that 'health authorities should accept responsibility for the abortions needed by women resident in their districts'.

Over 98% of induced abortions in Britain are undertaken because of risk to the mental or physical health of the woman or her children[3, 4]. This guideline has been developed in relation to the care of women seeking abortion on such grounds. Separate RCOG publications address legal, ethical and service issues relating to the minority of abortions undertaken because of fetal abnormality.[7]

Data on abortion rates in relation to age, gestation, grounds for abortion and so on, are routinely collected and published annually in Great Britain. These data are available for England and Wales from the DH,[8] and for Scotland from the Information Services Division.[9]

In Chapter 3 of this guideline, legal and ethical issues directly relevant to the context of service provision are summarised. In 2007 the RCOG provided evidence to the House of Commons Science and Technology Committee which was undertaking an inquiry into the recent scientific developments relating to the Abortion Act 1967[1]. A number of issues were highlighted for members of parliament to consider. Those relevant to the recommendations made in this guideline and to the provision of services included:

- the case for removing the need for two doctors signatures authorising the abortion
- recommendations allowing greater responsibility for nurses already involved in service provision
- the recommendation that there were no reasons of safety, efficacy or acceptability for not allowing women to have the second stage of medical abortion at home

Although the House of Commons chose not to amend the law relating to induced abortion in any of the above respects, the RCOG would still support these changes should any change in the regulations allow them to take place.

There are large geographical variations in access to NHS-funded abortion. In Scotland almost all abortions take place in NHS hospitals[4] while in England and Wales the NHS has funding arrangements with independent sector providers for over 40% of abortions and some 20% are undertaken in the independent sector[3]. Thus the clinical management of women requesting abortion spans a number of care sectors involving a range of professionals and the guidelines are written with this in mind.

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The RCOG acknowledges the substantial role that nurses now take in the provision of abortion services and recognises the lack of a formal training programme for this role. The RCOG recommends that the RCN gives thought to developing and implementing specialist training programmes for nurses working in abortion care.

The guideline does not touch on the subject of the prevention of abortion. The starting point of the guideline is when a woman presents to a health provider requesting induced abortion of an unintended/unwanted pregnancy.

1.2 Aim of the guideline

Clinical guidelines have been defined as systematically developed statements which assist clinicians and patients in making decisions about appropriate treatment for specific conditions.

The aim of this guideline is to ensure that all women considering induced abortion have access to a service of uniformly high quality. It is hoped that the guideline will be implemented across all relevant healthcare sectors and will promote a consistent standard, regardless of the sectors in which an individual woman is managed.

1.3 For whom is the guideline intended?

The guideline has been developed under the auspices of the RCOG for its Fellows and Members practising in Great Britain. The guideline is also intended for other professional groups who share in caring for women considering abortion: primary care teams, family planning clinic staff, gynaecology nurses, staff participating in non-NHS assessment centres and clinics, and all those professionals providing abortion counselling. Those with responsibilities for planning abortion services, for example directors of public health, NHS trust managers and managers of primary care groups, may also find the guideline helpful.

In this guideline, the term ‘clinician’ is used to refer to all healthcare professionals who participate in direct clinical patient care. Thus, the term includes doctors, nurses and midwives.

The guideline has been developed taking into account abortion legislation and available resources in Great Britain. The guideline may be used for reference in other countries but readers should bear in mind that legislation, resources and facilities will be different.

The content of the guideline falls naturally into a number of chapters documenting the process of managing induced abortion. The text in each chapter gives supporting evidence for the recommendations. Inevitably, there is considerable overlap between chapters, and referring to one single recommendation out of context of the guideline in its entirety may lead to misinterpretation.

1.4 Local protocol development

It is anticipated that this national guideline will be used as the basis for the development of local protocols or guidelines which will take into account local service provision and the needs and preferences of the local population. Such local adaptation should take place in a similar

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multidisciplinary group in consultation with all stakeholders affected by the recommendations. It is essential that commissioners of health care, as well as general practitioners, specialists and service users take part in such a process.[10]

1.5 Methods used in the development of the guideline

Literature search strategy

The aim of the literature review was to identify and synthesise relevant evidence within the published literature, thus enabling clinical practice recommendations to be based on evidence wherever possible.

In developing the earlier versions of this guideline searches were carried out for each topic of interest. The electronic database, MEDLINE (Ovid version), was searched for the period January 1966–September 2003, including foreign language publications. The searches were performed using relevant medical subject headings (MeSH) terms and text words. In addition, the electronic database EMBASE was searched between 1974 and September 2003, to identify publications, usually European, not indexed on MEDLINE. The Cochrane Library was searched to identify systematic reviews, meta-analyses and controlled clinical trials (CCTs). Reference lists of non-systematic review articles and studies obtained from the initial search were trawled and journals in the RCOG library were hand-searched to identify articles not yet indexed. There was no systematic attempt to search the 'grey literature' (conferences, abstracts, theses and unpublished trials).

In developing this edition, similar literature searches were carried out covering the period 2003 to mid 2010.

Where available, systematic reviews undertaken for the revision of the WHO guidelines for safe abortion[2] were used rather than undertaking a new search. This is reflected in the evidence tables. Cochrane systematic reviews including randomized clinical trials (RCTs) were the primary source of evidence for WHO. Relevant Cochrane systematic reviews were identified and the need for updating these was determined. Relevant and possibly relevant Cochrane systematic reviews were identified and those that were considered outdated were updated using their specific, standard search strategies. Additionally, three systematic reviews were conducted outside of the Cochrane Database of Systematic Reviews and were published in peer-reviewed journals. The search strategies and the specific criteria for including and excluding trials identified by the search are provided in the corresponding systematic review.

Sifting and reviewing the literature

For both the original and updating literature searches, a preliminary scrutiny of titles and abstracts was undertaken and full papers were obtained if they were relevant to the topic. Articles not relevant to the subject in question were rejected, as were articles where relevant outcomes were not reported. For all the subject areas, published systematic reviews or meta-analyses were used, if available. If these did not exist, randomised controlled trials were sought. For subject areas where a body of systematic review or randomised trial evidence was available, studies of less robust designs were not systematically sought. Where there were no relevant published randomised controlled trials, other appropriate experimental or observational studies were sought.

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Synthesising the evidence

Identified articles were assessed methodologically and the best available evidence was used to form and support the recommendations. If a good systematic review, meta-analysis or randomised controlled trial existed in relation to a topic, studies of a weaker design were ignored. The evidence was synthesised using qualitative methods. These involved summarising the content of identified papers in the form of evidence tables and agreeing brief recommendation statements that accurately reflected the relevant evidence. Quantitative techniques (meta-analysis) were not performed by the GDG because of time constraints and the difficulty of combining studies of various designs.

Forming and grading the recommendations

The definitions of the types of evidence used in this guideline originate from the US Agency for Health Care Policy and Research (Table 1.1).[11] Recommendations were based on, and explicitly linked to, the evidence that supports them. Recommendations were derived from available research evidence using consensus methods. Where there were areas without available research evidence, consensus was again used.

As part of the consensus process, members of the GDG were circulated with the recommendations published in the 2004 guideline. For each recommendation, members were asked to indicate if they thought that the recommendation should be included as it stood, included with modifications or excluded and whether any new recommendations should be developed. This approach ensured that all Group members had an equal opportunity to express their views on recommendations. The Group used an informal consensus process to agree modified recommendations.

The recommendations were then graded according to the level of evidence upon which they were based. The grading scheme used was formulated by the Clinical Outcomes Group and recommended by the NHS Executive[11].

The strength of the evidence on which each recommendation is based is shown in Table 1.2. It is accepted that, in this grading system, the evidence itself is not graded according to quality, although it is discussed narratively in the text supporting each recommendation. It is also accepted that randomised controlled trials may not always be the most appropriate study design (for example, to investigate diagnostic tests)[11]. Similarly, there may be clinical questions that cannot easily be answered by experiment but nevertheless represent good practice. Such recommendations will automatically be graded C or ✓.

The validity of some grade C and ✓ recommendations may be questionable, as they are not based upon incontrovertible evidence. However, the views of the 2010 GDG combined with comments from extensive peer review, as detailed below, suggest that the recommendations with this grading are acceptable to a wide body of expert opinion.

Table 1.1 Levels of evidence

Level	Evidence
Ia	Evidence obtained from meta-analysis of randomised trials
Ib	Evidence obtained from at least one randomised controlled trial
IIa	Evidence obtained from at least one well-designed controlled study, without randomisation
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study
III	Evidence obtained from well designed non-experimental descriptive studies, correlation studies and case studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

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Table 1.2 Forming recommendations

Grade of recommendation	Evidence level
A	Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation (evidence levels Ia, Ib)
B	Requires the availability of well-conducted clinical studies, but no randomised clinical trials on the topic of the recommendation (evidence levels IIa, IIb, III)
C	Requires evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates an absence of directly applicable clinical studies of good quality (evidence level IV)
Good practice points ✓	Recommended best practice based on the clinical experience of the Guideline Development Groups

Scope and methods of peer review

Successive drafts of the original guideline were written and discussed by the GDG until a formal peer review process was undertaken. Members of the Group suggested names of individuals or organisations from the area of practice that they represented and to individuals chosen by the DH and the RCOG. The draft was also posted on the RCOG website and comments invited from any Member or Fellow. Comments received were reviewed by the development team and changes were made to the document where necessary.

1.6 Implementation and review

This updated guideline was published in 2011. The RCOG will maintain a watching brief on the need to review recommendations in the light of new research evidence.

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Chapter 2

Summary of recommendations

2.1 Commissioning and Organising Services

Access to services

1. ✓ Commissioners and providers of abortion services should have local strategies in place for providing information for women and healthcare professionals on routes of access, including self referral.

2. ✓ Women should be able to access abortion services locally.

3. B Services should have arrangements which facilitate access without delay for referrals from a wide range of sources.

4. ✓ Where services have no provision for emergency care there must be robust and timely pathways for referral.

5. C Commissioners should ensure that abortion providers do not restrict access on the grounds of gender, age, ethnicity, religious beliefs, disability or sexual orientation.

6. ✓ Commissioners should ensure that access is not restricted on the grounds of marital status or the number of previous abortions.

7. C Professionals who are ethically opposed to abortion have a duty of care to refer onward in a timely manner women requesting abortion.

8. B Services should facilitate access for all women, particularly those who traditionally have difficulties accessing health services.

Tailored care

9. ✓ Services should make sure that a female member of staff is available if requested.

10. ✓ Services should be culturally sensitive and interpreters should be available if required.

Information provision

11. C Services should make sure that written, objective, evidence-guided information is available for women considering abortion to take away before the procedure. Information should be available in a variety of languages and formats.

12. ✓ Services are encouraged to adapt for local use nationally developed patient information.

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13. ✓ Staff providing abortion services should provide up to date evidence-guided information, supported by local data where robust, about complications and sequelae of abortion.

14. ✓ Women should have access to objective information and, if required, decision-making support about their pregnancy options.

15. C Information for women and providers should emphasise the duty of confidentiality.

Initial assessment

16. ✓ There should be a pathway to tertiary medical care for women with significant medical conditions.

17. C Women who decide to continue with the pregnancy should be referred for antenatal care.

18. ✓ Women who have a non-viable pregnancy require appropriate management, not forgetting contraception and sexual health care.

19. C Services should identify issues (e.g. child protection needs and domestic/sexual violence), which make women particularly vulnerable, and refer them on to relevant support services in a timely manner.

20. ✓ The assessment (including support services such as ultrasound) should be provided within a dedicated time and space and by a team committed to women requesting abortion, specifically separate from miscarriage and antenatal services.

21. C Elements of the assessment consultation can be provided via the telephone and or the internet. However, women should be able to access face to face consultation, if preferred.

Arrangements for the procedure

22. ✓ A system should be in place to ensure that doctors within the abortion service complete form HSA1 if a woman refers herself, or if the referring doctor is not willing to support the abortion.

23. C With respect to the method used to induce the abortion, service arrangements should be such that:

- Services should be commissioned for all women requesting induced abortion at all gestations.
- If a service cannot offer an abortion by any method after a specific gestation, timely onward referral must be ensured.
- All services should be able to offer abortion by at least one of the recommended methods for each gestation band.
- All services should be able to offer a *choice* of recommended methods for each gestation band.
- Services should provide surgical abortion under both local and general anaesthesia.

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24. C With respect to the need to minimise delay service arrangements should be such that:

- Referral should be made within 2 working days to an appropriate service.
- Abortion services must offer assessment within 5 working days of referral or self referral.
- Services should offer women the abortion procedure within 5 working days of the decision to proceed.
- The total time from access to procedure should not exceed 10 working days.

25. ✓ Women should be informed that they have a right to delay appointments and/or the procedure should they wish.

26. ✓ Upon referral, women should be given the service provider's contact details.

27. C Inpatient services, provided in an appropriate centre and clinical setting should be available for women who are unsuitable for home or day case care.

28. ✓ Services should have a protocol in place allowing early discharge after misoprostol for women undergoing medical abortion up to 9 weeks of gestation.

29. ✓ The setting for abortion should be sensitive and responsive to women's needs, and should respect the need for privacy and dignity.

30. Commissioners should ensure that services meet the recommendations relating to:

- B Contraception after the abortion
- A/B Antibiotic prophylaxis
- B STI screening
- C Information provision after the abortion
- C Counselling after the abortion

2.2 Side Effects, complications and sequelae of abortion – what women need to know

31. B Women should be advised that abortion is generally safer than continuing a pregnancy to term.

32. ✓ Complications and risks should be discussed with women in a way that they can understand and should emphasise the overall safety of the procedure.

33. ✓ Services should provide women with information about the physical symptoms and sequelae that may be experienced after abortion.

34. ✓ Services should inform women about the range of emotional responses that may be experienced during and following an abortion.

35. Women should be informed of the following rare but serious complications that may occur:

- B Uterine rupture has been reported in association with medical abortion. The risk is less than 1 in a 1000.

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36. B Women should be informed of the uncommon complications that may occur and of their possible clinical consequences. These may include:

- Severe bleeding requiring transfusion; the risk is lower for early abortions occurring in less than 1 in 1000 rising to around 4 in 1000 at gestations beyond 20 weeks
- Uterine perforation (surgical abortion only); the risk is in the order of 1–4 per 1000 and is lower for early abortions and those performed by experienced clinicians
- Cervical trauma (surgical abortion only): the risk of damage to the external os is no greater than 1 in 100 and is lower for early abortions and those performed by experienced clinicians

Women must be informed that should one of these complications occur, further treatment in the form of blood transfusion, laparoscopy or laparotomy may be required.

37. B Women should be informed that surgical and medical methods of abortion carry a small risk of failure to end the pregnancy, necessitating a further procedure.

38. C Women should be informed that there is a small risk of incomplete abortion necessitating further intervention i.e. surgical intervention following medical abortion or re-evacuation following surgical abortion.

39. B Women should be informed that infection of varying degrees of severity may occur after medical or surgical abortion and is usually caused by pre-existing infection. Prophylactic antibiotic use and bacterial screening for lower genital tract infection reduces this risk.

40. A Women should be informed that induced abortion is not associated with an increase in breast cancer.

41. B Women should be informed that there are no proven associations between induced abortion and subsequent ectopic pregnancy, placenta praevia or infertility.

42. B Women should be informed that induced abortion is associated with a small increase in risk of subsequent preterm birth, which increases with the number of abortions.

43. B Women should be informed that most women who have abortions do not experience adverse psychological sequelae.

2.3 Pre-abortion management

44. ✓ Prior to referral pregnancy should be confirmed by history and a reliable urine pregnancy test.

The abortion decision

45. C Healthcare staff caring for women requesting abortion should identify those who require more support in the decision making process.

46. C Women who are certain of their decision to have an abortion should not be subjected to compulsory counselling.

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47. ✓ Pathways to additional support, including counselling and social services, should be available.

48. ✓ Women should be given information about the different methods of abortion appropriate to gestation, the potential side effects and complications, and their clinical implications.

49. ✓ Where possible women should be given the abortion method of their choice.

Blood tests

50. C Pre-abortion assessment should always include:

- Determination of rhesus blood status

Where clinically indicated, pre-abortion assessment should also include:

- Determination of blood group with screening for red cell antibodies
- Measurement of haemoglobin concentration
- Testing for haemoglobinopathies

51. B It is not cost effective or necessary to cross-match routinely women undergoing induced abortion.

VTE risk assessment

52. ✓ All women undergoing an abortion should have a venous thromboembolism (VTE) risk assessment.

Cervical cytology

53. ✓ Women who have not had cervical cytology screening within the recommended interval should be offered screening within the abortion service, or advised on when and where to obtain it.

Ultrasound scanning

54. B Use of *routine* pre-abortion ultrasound scanning is unnecessary.

55. C Ultrasound scanning must be available to all services as it may be required as part of the assessment.

56. ✓ Ultrasound scanning should be provided in a setting and manner sensitive to the woman's situation.

57. ✓ Women should be offered the opportunity to see the ultrasound image but should only be shown it if they so wish.

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Prevention of infective complications

58. A/C Services should offer antibiotic prophylaxis effective against Chlamydia trachomatis and anaerobes for both medical (evidence grade: C) and surgical abortion (evidence grade: A).

59. C The following regimens are suitable for periabortion antibiotic prophylaxis:

- doxycycline 100 mg orally twice daily for 3 days , starting on the day of abortion, *plus* metronidazole 1 g rectally or 800 mg orally prior to or at the time of abortion

OR

- azithromycin 1 g orally on the day of abortion, *plus* metronidazole 1 g rectally or 800 mg orally prior to or at the time of abortion

STI screening

60. B All women should be screened for Chlamydia trachomatis and undergo a risk-assessment for other STIs (e.g. HIV, syphilis), and screened for them if appropriate.

61. C A system for partner notification and follow up or referral to a sexual health service should be in place.

62. ✓ Services should make available information about the prevention of sexually transmitted infections.

Contraception

63. C All appropriate methods of contraception should be discussed with women at the initial assessment and a plan agreed for contraception after the abortion.

Feticide

64. C Feticide should be performed before medical abortion after 21 weeks and 6 days gestation to ensure that there is no risk of a live.

2.4 Abortion procedures

Surgical methods

Vacuum aspiration

65. B Vacuum aspiration is an appropriate method of surgical abortion at gestations up to 13 weeks.

66. A Either electric or manual vacuum aspiration may be used as both are effective and acceptable to women and clinicians.

67. B Vacuum aspiration under 7 weeks of gestation should be performed with appropriate safeguards to ensure complete abortion including inspection of aspirated tissue, followed by ultrasound and serial serum hCG determination if indicated.

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68. A Vacuum aspiration may be performed over 13 weeks of gestation using larger bore cannula and suction tubing, however as forceps are often required to remove larger fetal parts, use of this method must be determined by the skills and resources of the operating surgeon.

69. ✓ During vacuum aspiration, the uterus should be emptied using the suction cannula and blunt forceps (if required) only. The procedure should not be routinely completed by sharp curettage.

70. C While access to ultrasound during vacuum aspiration is recommended for difficult cases, it is not necessary for routine procedures.

Dilatation and evacuation (D&E)

71. A Surgical abortion by D&E, preceded by cervical preparation, is appropriate for pregnancies above 13 weeks of gestation.

72. B Continuous ultrasound guidance during D&E is recommended to reduce the risk of surgical complications.

Cervical preparation for surgical abortion

73. B Cervical preparation should be considered in all cases, but particularly in high risk groups.

74. B The following regimens are optimal for cervical preparation up to 14 weeks of gestation:

- [*]Misoprostol 400 µg administered vaginally 3 hours prior to surgery or sublingually 2–3 hours prior to surgery.

75. B Vaginal misoprostol can be administered either by the woman herself or by a clinician.

76. B After 14 weeks of gestation, osmotic dilators provide superior dilatation to medical methods; however misoprostol is an acceptable alternative up to 18 weeks.

77. ✓ Women should be informed that misoprostol is not licensed for cervical preparation.

Pain relief for surgical abortion

Anaesthesia

78. B Services should be able to provide surgical abortions without resort to general anaesthesia.

79. C If conscious sedation is used during surgical abortion, it should be undertaken only by trained practitioners and in line with DH guidance.

[*] The dose of mifepristone (200 mg) recommended for medical abortion at all gestations is unlicensed. Similarly, misoprostol is unlicensed for induction of abortion at any gestation and via all routes of administration, nor is it licensed for cervical preparation. Women undergoing medical abortion or cervical preparation should be informed of this but reassured that these regimens are evidence-based, safe, and widely used.

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Analgesia

80. B All women should routinely be offered pain relief (e.g. NSAIDs) during surgical abortion.

81. A Prophylactic paracetamol (oral or rectal) is ineffective in reducing pain after surgical abortion and is not recommended.

Medical methods

82. B Medical abortion using mifepristone and a prostaglandin is effective and appropriate at any gestation.

Early medical abortion (gestation up to 63 days)

83. A For medical abortion to 63 days a dose of *200 mg of mifepristone in combination with misoprostol is appropriate.

84. B The following regimens are recommended for early medical abortion up to 63 days gestation.

- *Mifepristone 200 mg orally followed 24–48 hours later by misoprostol 800 µg given by the vaginal, buccal or sublingual route. Vaginal misoprostol may be administered by a clinician or self-administered by the woman.
- For gestational ages up to 49 days, 200 mg oral *mifepristone followed 24–48 hours later by 400 µg of oral misoprostol may be used.

85. B For women at 50–63 days of gestation, if abortion has not occurred 4 hours after administration of misoprostol, a second dose of *misoprostol 400 µg may be administered vaginally or orally (depending upon preference and amount of bleeding).

Place of misoprostol administration

86. ✓ It is safe and acceptable for women who wish to leave the abortion unit following misoprostol administration to complete the abortion at home. There must be an adequate support strategy and robust follow up arrangements for these women.

Medical abortion at gestation 9–13 weeks

87. A Medical abortion using the following regimen is a safe, effective and acceptable alternative to surgical abortion for women between 9 and 13 weeks of gestation:

- *mifepristone 200 mg orally followed 36–48 hours later by misoprostol 800 µg vaginally followed by repeated doses of misoprostol 400 µg orally or vaginally at 3-hourly intervals.

* The dose of mifepristone (200 mg) recommended for medical abortion at all gestations is unlicensed. Similarly, misoprostol is unlicensed for induction of abortion at any gestation and via all routes of administration, nor is it licensed for cervical preparation. Women undergoing medical abortion or cervical preparation should be informed of this but reassured that these regimens are evidence-based, safe, and widely used.

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Medical abortion at gestation 13–24 weeks

88. B For abortion from 13 to 24 weeks of gestation a dose of *200 mg of oral mifepristone is adequate followed by prostaglandin (orally, vaginally buccally or sublingually)

89. A The following regimen is optimal for medical abortion between 13 and 24 weeks:

- *Mifepristone 200 mg orally, followed 36–48 hours later by misoprostol 800 µg vaginally, then misoprostol 400 µg orally or vaginally, 3-hourly, to a maximum of four doses.

If abortion does not occur mifepristone can be repeated 3 hours after the last dose of misoprostol and 12 hours later misoprostol may be recommenced.

90. B Surgical evacuation of the uterus is not required routinely following medical abortion at gestations between 13 and 24 weeks. It should only be undertaken if there is clinical evidence that the abortion is incomplete.

Pain relief for medical abortion

91. B All women should be routinely offered pain relief (e.g. NSAIDs) during medical abortion.

92. A Oral paracetamol has not been shown to reduce pain more than placebo during medical abortion and is not recommended.

93. B Some women may require additional narcotic analgesia, particularly after 13 weeks of gestation

Histopathology

94. C Routine histopathological examination of tissue obtained at abortion procedures is not recommended.

Gestational trophoblastic neoplasia

95. C Routine screening of women for gestational trophoblastic neoplasia (GTN) at the time of abortion is not recommended; providers should be aware of the signs and symptoms and, where appropriate, facilitate referral into a GTN monitoring programme.

2.5 Care after the abortion

Rhesus prophylaxis

96. B Anti-D IgG should be given, by injection into the deltoid muscle, to all non-sensitised RhD negative women within 72 hours following abortion, whether by surgical or medical methods.

* The dose of mifepristone (200 mg) recommended for medical abortion at all gestations is unlicensed. Similarly, misoprostol is unlicensed for induction of abortion at any gestation and via all routes of administration, nor is it licensed for cervical preparation. Women undergoing medical abortion or cervical preparation should be informed of this but reassured that these regimens are evidence-based, safe, and widely used.

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Information after abortion

97. ✓ On discharge, all women should be given a letter that gives sufficient information about the procedure to allow another practitioner elsewhere to manage any complications.

98. ✓ Following abortion women must be provided with information about:

- symptoms they may experience, emphasising those which would necessitate an urgent medical consultation.
- symptoms suggestive of ongoing pregnancy.

99. ✓ Independent providers of abortion services should have arrangements in place for referring women into NHS services for emergency assessment/admission.

100. ✓ A 24-hour telephone helpline number should be available for women to use after abortion if they have any concerns.

Follow-up after abortion

101. B There is no medical need for routine follow-up after surgical abortion or after medical abortion if successful abortion has been confirmed at the time of the procedure.

102. ✓ Women having a medical abortion in whom successful abortion has *not* been confirmed at the time of the procedure should be offered follow-up to exclude ongoing pregnancy.

103. ✓ All women having an abortion should be able to choose to return for routine follow up if they so wish.

104. C Referral should be available for the small number of women who require additional emotional support.

105. ✓ All women should be advised where to seek help if they have any concerns or if they need further contraceptive advice or provision.

106. C Ultrasound examination should not be used routinely to screen women for incomplete abortion.

107. C The decision to evacuate the uterus following incomplete abortion should be based on clinical signs and symptoms and not on ultrasound appearances.

Contraception after abortion

108. B Abortion services should be able to provide all methods of contraception, including long acting methods, immediately after abortion.

109. B Women should be advised of the greater effectiveness of long acting reversible methods of contraception (LARC).

110. B Before she is discharged future contraception should have been discussed with each woman and contraceptive supplies should have been offered.

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111. B The chosen method of contraception should be initiated immediately.

112. B Intrauterine contraceptives can be inserted immediately following a medical and surgical abortion at all gestations as long as it is reasonably certain that the woman is not still pregnant.

113. ✓ Women who choose not to start a contraceptive method immediately should be given information about local contraceptive providers in addition to their general practitioner.

114. ✓ Abortion services should have an agreed pathway of care to local community sexual health services.

Sterilisation

115. B Sterilisation can be safely performed at the time of induced abortion although may be more likely to be associated with regret.

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Chapter 3

Legal and ethical aspects of abortion

3.1 The Abortion Act

The Abortion Act 1967,[12] as amended by the Human Fertilisation and Embryology (HFEA) Act 1990[13] governs abortion in England, Scotland and Wales (Great Britain). For England and Wales, further amendments to the regulations made in 2002 (summarised in Statutory Instrument 2002 No. 887)[14] apply. Legal requirements apply to certification and notification of abortion procedures. An abortion can only take place if two registered medical practitioners are of the opinion, formed in good faith, that an abortion is justified within the terms of the Act. Within the terms of the Abortion Act, only a registered medical practitioner can terminate a pregnancy: The notification form must be completed by the doctor taking responsibility for the procedure. In practice, a nurse or midwife may administer the drugs used for medical abortion once these have been prescribed by a doctor. In England 'treatment' has been interpreted to include the administration of both drugs used for the two stages of medical abortion and both drugs must be administered on the approved premises.

The Abortion Act was amended in 1990 to make clear that selective reduction of a multiple pregnancy is covered by abortion legislation. A woman who is carrying more than one fetus can only have an abortion if two doctors agree she has grounds under the Act. In addition, Section 1(3A) of the Abortion Act[15] was amended to give the Secretary of State for Health (in Scotland, the Scottish Ministers) the power to approve 'a class of places' outside of NHS hospitals for medical abortion. This provision has never been used in Great Britain.

Abortion Forms

Doctors are under a legal obligation to complete the following forms:

- HSA1 [Certificate A in Scotland] – Two doctors are required to sign the HSA1 form, which is the certificate of opinion before an abortion is performed under Section 1(1) of the Abortion Act[15]. The practitioner must keep the HSA1 for 3 years.
- HSA2 – [Certificate B in Scotland] to be completed within 24 hours of an emergency abortion and kept by the practitioner for 3 years
- HSA4 – Must be completed and sent to the Chief Medical Officer (CMO) either manually or electronically within 14 days of the abortion taking place. As is the case with the manual form, only doctors terminating the pregnancy are able to authorise the electronic form. In Scotland, the equivalent Notification Form must be sent to the CMO in Scotland within 7 days of the abortion taking place. There are as yet no electronic means of notification.

For England, the 2002 amendments to the abortion regulations[14] changed the content of the HSA4 form through which medical practitioners notify the CMO of every abortion performed. Guidance notes on completing the amended form have been published.[16] Wales has also adopted the amended HSA4.

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Application of the Abortion Act in other British Territories

The Abortion Act[12] does not apply in Northern Ireland. A pregnancy can be terminated if the woman has a serious medical or psychological problem that would jeopardise her life or health if the pregnancy continued, if she has severe learning difficulties or if a fetal abnormality is detected. It is unclear at what gestations such procedures may be performed and no official statistics are collected. The outcome of the Irish Family Planning Association appeal to the European Court of Human Rights (ECHR) relating to medical practices covering abortion provision in Northern Ireland was published in December 2010.[17] The Court found that the prohibition on abortion in Ireland did not breach Article 8 ECHR, owing to the margin of appreciation allowed to the state in balancing the protection of the life of the unborn with the rights of the mother. However, Northern Ireland was in breach of its obligations under article 8 in failing to legislate to set out the circumstances in which a woman in Ireland is entitled to a lawful abortion where there is a risk to her life.

As a result of the ruling the Irish Government is required to introduce legislation or official guidelines on access to abortion for women where a woman's life is at risk. In addition, the Abortion Act does not apply in the Isle of Man, Jersey or Guernsey and women from these countries are not considered to be residents of Great Britain.

Statutory grounds for termination of pregnancy

Abortion is legal in Great Britain if two doctors decide in good faith that in relation to a particular pregnancy one or more of the grounds specified in the Abortion Act[12] are met.

A The continuance of the pregnancy would involve risk to the life of the pregnant woman greater than if the pregnancy were terminated (Abortion Act 1967 as amended, Section 1(1)(c)).[15]

B The termination is necessary to prevent grave permanent injury to the physical or mental health of the pregnant woman (Section 1(1)(b))[15].

C The pregnancy has not exceeded its 24th week and the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman (Section 1(1)(a)).[15]

D The pregnancy has not exceeded its 24th week and the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of any existing child(ren) of the family of the pregnant woman (Section 1(1)(a)).[15]

E There is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped (Section 1(1)(d)).[15]

The Act also permits abortion to be performed in an emergency if a doctor is of the opinion formed in good faith that termination is immediately necessary in order:

F To save the life of the pregnant woman (Section 1(4)).[15]

G To prevent grave permanent injury to the physical or mental health of the pregnant woman (Section 1(4)).[15]

Most abortions are undertaken on ground C: that the pregnancy has not exceeded its 24th week and that continuance would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the woman.

Abortions have risen steadily since 1992. However, more recently there has been a decrease in the

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total number of abortions. In England and Wales (2009), the vast majority (97%) of abortions were carried out under ground C and a further 1% under ground D. A similar proportion was carried out under ground E. Grounds A and B together accounted for less than a half percent of abortions. Abortions are rarely carried out under grounds F or G.[3] In Scotland in 2009, 98.6% of abortions were undertaken on grounds C or D and 1% on ground E. Ground A/B and Ground F/G each accounted for less than 0.1% of all abortions in 2009.[4]

Place of Termination

Treatment for abortion (medical and surgical) must be carried out in an NHS hospital (hospital vested in an NHS trust, primary care trust or foundation trust) or approved independent sector place. The legal definition of 'hospital' is set out in Section 275(1) of the NHS Act 2006[18] and, for Scotland, in Section 108 of the National Health Service (Scotland) Act 1978.[19] For these purpose, if it is not clear whether the NHS premises fall within this definition, legal advice should be sought.

3.2 Good professional practice

The Role of Doctors

The Abortion Act[12] has a conscientious objection clause, which permits doctors (registered medical practitioners) to refuse to participate in treatment authorised by the Act if by doing so it conflicts with their religious or moral beliefs. Further details on this are contained in Section 4.[20] Doctors providing abortion care are bound by the same duties of a doctor, as laid down by the General Medical Council (GMC) in its Good Medical Practice Guidance (2006),[21] for all other aspects of their clinical practice. These principles of good practice bear repetition here:

- make the care of your patient your first concern
- protect and promote the health of patients and the public
- provide a good standard of practice and care
    - keep your professional knowledge and skills up to date
    - recognise and work within the limits of your competence
    - work with colleagues in the ways that best serve patients' interests
- treat patients as individuals and respect their dignity
    - treat patients politely and considerately
    - respect patients' right to confidentiality
- work in partnership with patients
    - listen to patients and respond to their concerns and preferences
    - give patients the information they want or need in a way they can understand
    - respect patients' right to reach decisions with you about their treatment and care
    - support patients in caring for themselves to improve and maintain their health
- be honest and open and act with integrity
    - act without delay if you have good reason to believe that you or a colleague may be putting patients at risk
    - never discriminate unfairly against patients or colleagues
    - never abuse your patients' trust in you or the public's trust in the profession

Doctors are legally required under the Abortion Act 1967 (as amended)[12] to complete abortion forms for every abortion performed whether carried out in the NHS or an approved independent sector place and whether or not the woman is a Great Britain resident. See Section 3(1)[22] covering abortion forms in for further details on this.

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The Role of Nurses

In accordance with the Abortion Act 1967[12] the authorisation and provision of any abortion is the legal responsibility of a registered medical practitioner. In the case of medical abortion, this means that a doctor has to remain in charge throughout the abortion process and will prescribe the drugs and sign the relevant paperwork. The RCN guidance on abortion care for nurses, midwives and specialist community public health nurses (2008) sets out good practice in this area and on wider abortion care.[23] In essence, a nurse or midwife may administer the drugs used for medical abortion at any gestation once these have been prescribed by the doctor concerned. Nurse nurses cannot perform surgical abortions. In law, nurses have similar rights to conscientious objection as doctors. See Section 4 for further details.[20]

3.3 Confidentiality

All women seeking abortion have the right to confidentiality. Only in exceptional circumstances, where the health, safety or welfare of a minor, or other persons, is at risk should information be disclosed to a third party. The DH published *Confidentiality; NHS Code of Practice* in 2003.[24] This document sets out required practice for those who work within or under contract to NHS organisations. In addition, the Department for Education (formerly Department for Children, School and Families) published in 2008 *Information Sharing: Guidance for Practitioners and Managers*.[25] This guidance is designed to provide an overview of information sharing for those working directly with children, young people, and vulnerable adults.

In Scotland, the leaflet *NHS Code of Practice on Protecting Patient Confidentiality* provides step-by-step advice for all staff on issues like the laws governing data protection, how to obtain consent from patients for their information to be used, and patients' rights of access to their personal health records.[26]

Abortion service providers must make women aware that the contents of the HSA4 form used to inform the CMO of abortions will be used for statistical purposes by the DH. The data published is anonymised. Similar arrangements apply in Scotland.

3.4 Professionals' rights: conscientious objection to abortion

The Abortion Act has a conscientious objection clause, which permits doctors (and nurses) to refuse to participate in the treatment process of abortions unless it is necessary to save life or prevent grave permanent injury to the woman's physical or mental health.[20] The scope of the Act's conscientious objection clause was clarified in the House of Lords 1988 Janaway case.[27] The British Medical Association (BMA) produced a helpful overview on *The law and ethics of abortion* (2007), based on a comprehensive review of relevant legal documents.[28] The following represents a summary of the BMA's conclusions relating to interpretation of the conscientious objection clause:

- Doctors may refuse to participate in abortions but are obliged to provide necessary treatment in an emergency, when the woman's life may be jeopardised.
- Doctors with a conscientious objection may not impose their views on others, but may explain their views to a patient if invited to do so.
- The Parliamentary answer clarifies that the conscientious objection clause was only intended to be applied to participation in treatment. Subsequently, however, hospital managers have been asked to apply the principle, at their discretion, to those ancillary staff involved in handling fetuses and fetal tissue.

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- Refusal to participate in paperwork, administration or routine care connected with abortion procedures lies outside the terms of the conscientious objection clause.
- Practitioners cannot claim a legal exemption from giving advice or performing the preparatory steps to arrange an abortion where the request meets legal requirements. Such steps include timely referral to another doctor as appropriate.
- The conscientious objection clause may be used by medical students to opt out of witnessing abortions.

In law, nurses have similar rights to conscientious objection. These are summarised in The Royal College of Nursing guidance on Abortion Care (2008)[23]. Like doctors, nurses have the right to refuse to take part in abortion but not to refuse to take part in emergency treatment.

3.5 Disposal of fetal tissue

Fetal tissue must be treated with dignity and respect in accordance with local policies, which reflect the *Human Tissue Authority's Code of Practice 5, Disposal of human tissue for fetuses born dead at or before 24 weeks of gestation*.[29] The Sands (2007) guidelines for professionals also argue the need for sensitive disposal.[30] In addition, the RCOG have produced a good practice guidance in 2005 on *Disposal Following Pregnancy Loss Before 24 Weeks Gestation*.[31]

Women should be made aware that information on disposal options is available. Any personal wishes expressed should be met wherever possible.

In general, abortion service providers arrange for fetal material to be incinerated. Some have chosen to have a contract with local crematoria or burial authorities for cremation or burial.

Women may decide to arrange disposal themselves and they are free to do so. The RCN guidance for nurses and midwives on *Sensitive Disposal of All Fetal Remains* (2007) looks at the options.[32]

Among women who have an early medical abortion (up to 63 days), some women choose to pass the products of conception outside of hospital or clinic premises. The DH advises that abortion service providers should make provision for women to return products of conception to the provider for disposal if they so wish.[33] Women should be made aware that information on disposal options is available if they wish to have access to it. If they then decide not to receive any information about, or take part in, the disposal of the fetal tissue, their wishes should be respected.

Abortions carried out after 24 weeks of gestation are required by law to be registered as stillbirths and the body to be buried or cremated. However, these circumstances lie outwith the scope of this guideline, which focuses on abortions undertaken on Grounds 'C' and 'D', restricted to pregnancies under 24 weeks.

3.6 Use of Fetal Tissue for Research Purposes

In England and Wales, research on the fetus or fetal tissue is subject to the requirements of the Human Tissue Act 2004[34] and should be conducted in accordance with Codes of Practice published by the Human Tissue Authority.[35] Specific guidance on consent to the use of fetal tissue is contained in Code of Practice 1 (*Consent*) (this Code of Practice does not apply to Scotland, but is recommended as good practice).

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3.7 Issues relating to consent to treatment

The BMA's guidance on *Law and Ethics of Abortion* updated in 2007[28] and the GMC's guidance *Consent: patients and doctors making decisions together* published in 2008 [36] sets out good practice in this area. In 2009, the DH updated its comprehensive reference guide to consent for examination or treatment.[37]The advice which follows has been updated with particular reference to the latter document.

Adult with Capacity

In the case of an adult woman (that is, aged over 18 years, or 16 years in Scotland), for consent to be valid it must be given voluntarily and the woman must have the capacity to consent to the intervention in question.

A good working test for assessing capacity to consent to or refuse medical treatment was outlined by Mr Justice Thorpe and has been reiterated in the BMA document[28]. This test is based on the patient having the ability to:

- understand the information relevant to the decision;
- retain the information relevant to the decision;
- use or weigh the information; and
- communicate the decision (by any means).

Adult without Capacity – England and Wales

The Mental Capacity Act 2005 applies in England and Wales to everyone who works in health and social care and is involved in the care, treatment or support of people over 16 years of age who may lack capacity to make decisions for themselves.[38] The 2005 Act defines a person who lacks capacity as a person who is unable to make a decision for themselves because of an impairment or disturbance in the functioning of their mind or brain. It does not matter if the impairment or disturbance is permanent or temporary. A person lacks capacity if:

- They have an impairment or disturbance (for example a disability, condition or trauma or the effect of drugs or alcohol) that affects the way their mind or brain works; and
- That impairment or disturbance means that they are unable to make a specific decision at the time it needs to be made.

Under English law, no one is able to give consent to the examination or treatment of an adult on behalf of another adult who is unable to give consent for herself unless they have been authorised to do so under a Lasting Power of Attorney or they have the authority to make treatment decisions as a court appointed deputy. Therefore, in most cases, parents, relatives or members of the healthcare team cannot consent on behalf of such an adult. Authoritative text provides reassurance that provided the terms of the Abortion Act are complied with, a High Court declaration is not required.[39] Rather, the professional's assessment of the woman's best interests should be the basis of the decision where the woman lacks the capacity to give valid consent. In determining what is in the women's best interest a healthcare professional must not make assumptions merely on the basis of the woman's age or appearance, condition or any aspect of her behaviour. In considering the relevant circumstances, healthcare professionals must take the following steps:

- Consider whether the woman is likely to regain capacity and if so whether the decision can wait

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- Involve the women as fully as possible in the decision that is being made on her behalf
- As far as possible consider:
  - the persons past and present wishes and feelings (in particular if they have been written down)
  - any beliefs and values and any other relevant factors; and
  - the other factors that the person would be likely to consider if they were able to do so
- As far as possible, consult other people if it is appropriate to do so and take into account their views as to what would be in the best interest of the woman especially:
  - anyone previously named by the person as someone to be consulted
  - anyone engaged in caring for or interested in the persons welfare
  - any attorney appointed under a Lasting Power of Attorney
  - any deputy appointed by the Court of protection to make decisions for the woman
- For decisions about serious medical treatment, where there is no one appropriate other than paid staff, healthcare professionals have to instruct an Independent Mental Capacity Advocates (IMCA).

Adult without capacity – Scotland

In Scotland, Part 5 of the Adults with Incapacity (Scotland) Act 2000 provides a framework for the medical treatment of incapacitated adults (those aged 16 years or over).[40] If an adult lacks the capacity to make healthcare decisions, a certificate of incapacity must, in normal circumstances, be issued by the practitioner primarily responsible for the patient's care and treatment − consulting with all those who have an interest in the patient's health and wellbeing as necessary − before treatment commences. It is, however, recognised, that this will not always be possible in life threatening situations. (Dental practitioners, ophthalmic opticians or registered nurses who have undergone training on the assessment of incapacity can also complete the certificate, but only for a specific treatment they need to provide.) Once a certificate has been issued, doctors can act under the general authority to treat. However, before abortion can be carried out on an adult who lacks capacity, in addition to meeting the requirements of the Abortion Act, under the terms of the Adults with Incapacity (Specified Medical Treatments) (Scotland) Regulations 2002,[41] approval by a practitioner appointed by the Mental Welfare Commission is required (and in the case of an adult who is 16 or 17 and is incapable in relation to a decision about that treatment, the medical practitioner appointed by the Mental Welfare Commission must have a qualification, or have special experience, in child and adolescent psychiatry or in another relevant specialism). If patients who are detained under the Mental Health (Care and Treatment) (Scotland) Act 2003[42] require treatment for a physical condition they should be assessed for their capacity to consent to such treatment and, if appropriate, treatment considered under the provisions of the Adults with Incapacity (Scotland) Act 2000[40].

Young People with Capacity

Young people aged 16–17 years – England and Wales

By virtue of Section 8 of the Family Law Reform Act 1969, people aged 16 or 17 years are presumed to be capable of consenting to their own medical treatment and any ancillary procedures involved in that treatment , such as anaesthetic.[43] However, unlike adults, the refusal of a competent person aged 16 or 17 years may, in certain circumstances, be overridden by a person with parental responsibility or by a court. In order to establish whether a young person aged 16 or 17 years has the requisite capacity to consent to an intervention, the same criteria as for adults should be used. If the requirements for valid consent are met, it is not legally necessary to obtain consent from a person with parental responsibility. However, it is good practice to involve the young person's family in decision making, unless the young person specifically wishes to exclude them.

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Young people aged under 16 years – England and Wales

The House of lords ruling in the Gillick case[44] was followed by the issuing of guidance by the DH in the form of a Health Circular [HC(FP)(86)1.[45] The legal position was stated as 'any competent young person, regardless of age, can give valid consent to medical treatment'. This is sometimes described as 'Gillick or Fraser competent'.

The same working test for assessing capacity as described in relation to the adult with capacity should be applied. Although a young person may have the capacity to give consent, this is only valid if it is given voluntarily. To be valid, consent must be given voluntarily and freely, without pressure or undue influence being exerted on the person to either accept or refuse treatment.

Following the Gillick case, Lord Fraser provided the Fraser criteria to guide doctors asked to provide contraception for girls aged under 16 years who refuse to involve their parents.[46] These criteria are worded to apply only to provision of contraception, but provide guidance similar to that provided by Mr Justice Thorpe.

A doctor is justified in proceeding without the parent's consent or knowledge if:

- the young person will understand his advice
- the doctor cannot persuade her to inform her parents or to allow him to inform the parents that she is seeking an abortion
- the doctor cannot persuade her to inform her parents or to allow him to inform the parents that she is seeking contraceptive advice
- she is likely to begin or to continue having sexual intercourse with, or without, contraceptive advice
- unless she receives contraceptive advice or treatment her physical or mental health, or both, are likely to suffer
- her best interests require the doctor to give her contraceptive advice, treatment, or both, without parental consent.

The case of Axon v The Secretary Of State For Health confirmed that the Gillick judgment also extends to cover abortion.[47] Doctors have an obligation to encourage a young person to involve her parent(s) or another adult (such as another family member or a specialist youth worker) but generally should not override the patient's views. Further guidance is contained in Working Together to Safeguard Children.[48]

Young people aged under 16 years – Scotland

Legislation in Scotland relating to consent for medical, surgical and dental procedures is based on the Age of Legal Capacity (Scotland) Act 1991.[49] Under the terms of this Act, the situation regarding the ability of children under 16 to consent to medical treatment is similar as for the rest of Great Britain, but the overriding test is whether the child is 'capable of understanding the nature and consequences of the procedure or treatment' (Section 2(4) of the 1991 Act).

Young People without Capacity

Young people aged under 16 years – England and Wales

Only a holder of 'parental responsibility', or the court, can give consent to treatment on behalf of a minor. Adults who do not hold parental responsibility cannot give such consent. In rare cases, where a young person seeking abortion is not felt to be competent to provide valid consent and

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where a parent (or other holding parental responsibility) cannot give consent on the child's behalf, then it may be wise to obtain a court order. A court order would also be needed if the parent or other person with parental responsibility refused to give their consent. Similar advice is provided by BMA[28].

Wards of court

The main exception to this general guidance is if the young woman is a ward of court. In such cases, the courts would need to approve a termination. It is therefore particularly important that medical records make it clear if a child is a ward of court.

Similarly, if a young woman seeking abortion is in the care of a local authority she should be encouraged to involve the local social services. If, in such a case, the young woman refuses consent to such sharing of information, then individual legal advice should be sought.

Young people aged under 16 years – Scotland

Similar to the above, in Scotland persons having parental responsibilities in relation to a child under 16 have the right to act as the child's legal representative (which includes the right to make decisions about the medical treatment of a child under 16 who lacks the capacity to give such consent themselves). In addition, under Section 5 of the Children (Scotland) Act 1995, persons over 16 who have care or control of a child under 16, but who do not have parental rights or responsibilities in relation to that child, can nevertheless give consent to any surgical, medical or dental treatment or procedure where (i) the child is not able to give such consent on his own behalf; and (ii) it is not within the knowledge of the person that a parent of the child would refuse to give the consent in question.[50] This does not, however, apply to a person who has care of control of a child in a school setting.

Where questions arise as to parental rights and responsibilities, the matter can be referred to the sheriff court or the Court of Session.

3.8 Abuse of children and vulnerable people

There are special difficulties in managing suspected child abuse, incest or abuse of the very vulnerable in abortion services. The need for a decision on an abortion may be urgent because of advanced gestation and both the girl and any accompanying adult usually conceal the truth from assessing staff. The girl may have travelled away from her home area to assist with the concealment. Staff must be alert to the possibility of abuse, particularly when the girl refuses to involve her parents or general practitioner, or is accompanied by a controlling adult such as a male relative who wishes to remain particularly close to her.

When abuse is suspected, the primary concern must be the wellbeing of the girl and any siblings. Clear protocols must be in place for all assessors, medical staff, nurses and counsellors on action to be taken should abuse be suspected. It is suggested that all services should designate a small number of doctors and counsellors to assess all girls under 16 years. Within the terms of confidentiality, it is their responsibility to liaise with the appropriate children's social care team in the local authority when it is thought that a girl has been abused or when other children are likely to be at risk. Guidance on this is contained within *Working Together to Safeguard Children* published in 2010. Particular paragraph's of interest are 5.25–5.31, and 6.2–6.4.[48] Similar considerations can arise in the case of vulnerable women (perhaps because of a learning disability).

The duty of a doctor who learns of such an allegation or has other reason to suspect abuse is to

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protect the child and secure the best possible outcome for that child. Where a doctor believes that a patient (whether or not that patient is a child) may be the victim of abuse or neglect, the patient's interests are paramount, and will usually require a doctor to disclose information to children's social care team in the local authority. In the case of children, healthcare professional's responsibilities are set out in *What to do if you're worried a child is being abused* published in 2006.[51]

Disclosure is not invariably required but it is usual in order that the interests of the child, which are paramount, may be protected. A doctor may be called upon to justify before the court or the statutory professional body, the GMC, the action that he or she has taken. When such concerns arise in the context of abortion, whether during counselling or subsequently, the duty of the doctor is clear, and those who practise in this field should ensure that they are familiar with the procedures to be observed. A doctor should also bear in mind that other children in a family may be in need of protection.

3.9 Rights of the spouse or partner

The decision to have an abortion rests with the woman and her doctors. Legally, the woman's spouse and/or the putative father of the child has no rights to demand or refuse an abortion. In individual cases which attracted much media attention (Kelly, 1997[52], Hansell 2001)[53] male partners brought unsuccessful legal actions in attempts to prevent women obtaining abortions.

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Chapter 4

Commissioning and Organising Services

Abortion services should aim to provide high-quality, efficient, effective and comprehensive care, which respects the dignity, individuality and rights of women to exercise personal choice over their management. An abortion service should be an integral component of a broader service for reproductive and sexual health, encompassing contraception, management of sexually transmitted infections and support.

While this guideline is primarily intended for clinicians providing services, the provision of care is a shared responsibility with commissioners of services. Commissioning is the means of ensuring that the healthcare services are provided effectively and meet the needs of the population. It is a process that includes: assessing population needs, prioritising health outcomes, procuring services, ensuring meaningful consumer involvement and managing service providers.

It is the responsibility of the commissioners and providers of abortion services to ensure that the care is provided in accordance with current evidence and best practice identified within this guideline. National, regional and local data should also be used to inform the commissioning of services.

A full range of services should be commissioned, to include a choice of medical and surgical procedures for all gestations up to the legal limit, as part of an integrated pathway of care. The pathway should include a clear process for dealing with women presenting at late gestations.

Abortion care should be commissioned and delivered within a robust clinical governance framework to assure accessibility, clinical quality and patient safety.[54] Clinical staff working within the service must be appropriately trained and experienced. Clinical appraisal/revalidation procedures ensure that clinicians keep up-to-date with the continuing professional development requirements set down by their professional body and commissioners must monitor compliance to these standards.

Increasingly the independent sector is providing abortion care. In 2009 94% of abortions were funded by the NHS; of these, over half (60%) took place in the independent sector under NHS contract[3]. This has been identified as a significant issue for clinical training and mentorship required for clinicians undertaking abortions, particularly at later gestations.[55] The independent sector has neither resources nor a responsibility to provide training and as the amount of abortions done in the independent sector increases the opportunities for training in NHS facilities decreases.

The following recommendations relating to the organisation of abortion services are the joint responsibility of commissioners and providers of services.

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4.1 Access to services

RECOMMENDATION 1

✓ Commissioners and providers of abortion services should have local strategies in place for providing information for women and healthcare professionals on routes of access, including self referral.

Evidence supporting recommendation 1

People faced with an unintended pregnancy need information on their options, including abortion, and on relevant service provision. Information should include what local services, including general practices, do and do not offer[56] Inadequate provision, delayed access to services and lack of public awareness are strongly associated with subsequent adverse health outcomes.[57]

A full range of services should be commissioned according to the service specification for the NHS contract for abortion service providers (England)[58] including confirmation of pregnancy, referral procedures for all gestations and methods, and ongoing care.[59]

Funding of NHS abortion services differs in various parts of the country. In some areas, the NHS will pay for abortions provided by the independent sector, but in other areas some women may need to pay for themselves. Women can contact the independent sector without being referred by a doctor. However, the NHS may not pay for this, and the agreement of two doctors is still required.

It is the responsibility of the commissioning organisation to ensure that eligible women have access to abortion care, irrespective of the funding arrangements, or any other criteria that could restrict access.

RECOMMENDATION 2

✓ Women should be able to access abortion services locally.

Evidence supporting recommendation 2

Access to both early and late abortion services varies significantly across the country and some women continue to face difficulties. The Medical Foundation for AIDS & Sexual Health (MedFASH)[57] urges commissioners to improve access to abortions and locate services in more community-based settings.

RECOMMENDATION 3

B Services should have arrangements which facilitate access without delay for referrals from a wide range of sources.

Evidence supporting recommendation 3

The earlier in pregnancy an abortion is performed, the safer it is. Delay in referral has been implicated in maternal death.[60] The proportion of procedures performed in England and Wales under 10 weeks has increased to 75% reflecting an improvement in access but there is wide local variation[3]. Access to abortion at later gestation is not provided by all services which can lead to delay and the need to travel for care. The proportion of women accessing late abortion care has been remarkably static over time and research indicates that the reasons for late abortions (after 13

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weeks) are complex but include service failures[57]. Women requesting abortion late are often vulnerable and may have complex difficulties. The development of an agreed best practice protocol for dealing with late abortion has been recommended by the CMO but not yet actioned[57].

Telephone referral services with the provision of dedicated outpatient appointment time facilitate earlier abortion.[61]

RECOMMENDATION 4

✓ Where services have no provision for emergency care there must be robust and timely pathways for referral.

RECOMMENDATION 5

C Commissioners should ensure that abortion providers do not restrict access on the grounds of gender, age, ethnicity, religious beliefs, disability or sexual orientation.

RECOMMENDATION 6

✓ Commissioners should ensure that access is not restricted on the grounds of marital status or the number of previous abortions.

Evidence supporting recommendations 5 and 6

The Equality Impact Assessment for National Sexual Health Policy[62] ensures services are provided fairly to all populations regardless of age, ethnicity, language, disability, sexual orientation, religious or personal circumstances. It is the responsibility of both commissioners and providers to ensure that all strategies, service specifications, policy documents and service information are impact assessed.

RECOMMENDATION 7

C Professionals who are ethically opposed to abortion have a duty of care to refer onward in a timely manner women requesting abortion.

Evidence supporting recommendation 7

According to the GMC, 'you must treat your patients with respect, whatever their life choices and beliefs'[21]. Physicians, nurses, and others who refuse to provide referral or undertake abortions on religious grounds have a duty of care and must refer their patients (without delay) to non-objecting practitioners or agencies.

RECOMMENDATION 8

B Services should facilitate access for all women, particularly those who traditionally have difficulties accessing health services.

Evidence supporting recommendation 8

Teenagers, women with complex social problems and young women of Black and Black British ethnicity are all at risk of unintended pregnancy and are known to have difficulty accessing healthcare services.[63, 64, 65, 66, 67]

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4.2 Tailored care

RECOMMENDATION 9

✓ Services should make sure that a female member of staff is available if requested.

RECOMMENDATION 10

✓ Services should be culturally sensitive and interpreters should be available if required.

4.3 Information provision

RECOMMENDATION 11

C Services should make sure that written, objective, evidence-guided information is available for women considering abortion to take away before the procedure. Information should be available in a variety of languages and formats.

RECOMMENDATION 12

✓ Services are encouraged to adapt for local use nationally developed patient information.

RECOMMENDATION 13

✓ Staff providing abortion services should provide up to date evidence-guided information, supported by local data where robust, about complications and sequelae of abortion.

RECOMMENDATION 14

✓ Women should have access to objective information and, if required, decision-making support about their pregnancy options.

Evidence supporting recommendations 11–14

All women attending an abortion service will require a discussion to determine the degree of certainty of their decision and their understanding of its implications.

All information provided at the initial consultation must be backed up by good-quality, accurate, impartial, written information that is well presented and easy to understand. Patients want to receive written information about medical and surgical interventions and when given written information are more likely to be satisfied with their care.[68]

A 2002 study examined the quality of information relating to medical abortion available to the public on the Internet.[69] Incorrect and inappropriate information was common. Locally produced leaflets are often of poor quality.[70] Services should make use of the RCOG website [71] or Family Planning Association (fpa) patient information [72] and base local leaflets on this information. Where good quality information is collected from audits of local services with sufficient throughput of patients to allow robust data e.g. local statistics for complication rates etc, these should be provided.

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RECOMMENDATION 15

C Information for women and providers should emphasise the duty of confidentiality.

Evidence supporting recommendation 15

Abortion is still highly stigmatised and, without a guarantee of confidentiality, vulnerable women could be deterred from seeking help.

Women of all ages accessing such services have the right to confidentiality under the NHS code of practice[24]. However, confidentiality is a key issue for young people accessing services. All practitioners and front-line staff who have responsibilities for safeguarding and promoting the welfare of children should be appropriately trained and should have ready access to expert child protection advice.

The British Medical Association (BMA) states that decisions must be made on the basis of an assessment of the child's best interests, taking into consideration all relevant factors.[73]

4.4 Initial assessment

RECOMMENDATION 16

✓ There should be a pathway to tertiary medical care for women with significant medical conditions.

RECOMMENDATION 17

C Women who decide to continue with the pregnancy should be referred for antenatal care.

Evidence supporting recommendation 17

Women and their babies who delay seeking maternity care have worse outcomes than those who access care at an earlier stage of pregnancy.[74] Delayed presentation is particularly likely among women who misuse substances (alcohol and/or drugs), women who are recent migrants, asylum seekers or refugees, or who have difficulty reading or speaking English, young women aged under 20 and women who experience domestic abuse.[75]

RECOMMENDATION 18

✓ Women who have a non-viable pregnancy require appropriate management, not forgetting contraception and sexual health care.

RECOMMENDATION 19

C Services should identify issues (e.g. child protection needs and domestic/sexual violence), which make women particularly vulnerable, and refer them on to relevant support services in a timely manner.

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Evidence supporting recommendation 19

The rate of domestic violence is higher in women seeking abortion, especially repeat abortion[76] and this has child protection implications. Abortion services offer an opportunity to identify such vulnerable women and enable them to receive support from or referral to trained advocates.[77]

RECOMMENDATION 20

✓ The assessment (including support services such as ultrasound) should be provided within a dedicated time and space and by a team committed to women requesting abortion, specifically separate from miscarriage and antenatal services.

RECOMMENDATION 21

C Elements of the assessment consultation can be provided via the telephone and or the internet. However, women should be able to access face to face consultation, if preferred.

Evidence supporting recommendation 21

Increasingly, services are using technology as an alternative to face to face consultation and service delivery. Anecdotally, women find telephone consultation for the initial assessments highly acceptable. Protocols that require in-person follow-up after abortion may not be the best use of a women's time, or that of the medical system.[78, 79, 80, 81, 82]

4.5 Arrangements for the procedure

RECOMMENDATION 22

✓ A system should be in place to ensure that doctors within the abortion service complete Form HSA1 if a woman refers herself, or if the referring doctor is not willing to support the abortion.

RECOMMENDATION 23

C With respect to the method used to induce the abortion, service arrangements should be such that:

- Services should be commissioned for all women requesting induced abortion at all gestations.
- If a service cannot offer an abortion by any method after a specific gestation, timely onward referral must be ensured.
- All services should be able to offer abortion by at least one of the recommended methods for each gestation band.
- All services should be able to offer a *choice* of recommended methods for each gestation band.
- Services should provide surgical abortion under both local and general anaesthesia.

Evidence supporting recommendation 23

Services for a population should be able to provide abortion, by at least one recommended method, for women at any gestation at which abortion is permitted within the law.

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Medical and surgical methods of abortion differ in respect of the procedure duration, number of required visits, effectiveness, side effects, and complication profile.[83, 84, 85, 86] In most studies, women expressed similar levels of satisfaction regardless of which abortion procedure was used.

A number of studies comparing surgical abortion performed under local or general anaesthesia have demonstrated the benefits of local anaesthetics on the variety of outcomes (evidence table *n*). Services should make the option of surgical abortion under local anaesthesia available.

A number of patient surveys confirm that women value being offered a choice of methods appropriate to the gestation at which they present[87, 88, 89] and if given a choice are more likely to be satisfied with their treatment.[90, 91]

Given that both medical and surgical abortion methods are effective and acceptable, and since differences in serious adverse outcomes cannot be demonstrated, the GDG recommends that services should be able to offer a choice of methods in each gestation band.

Where a service cannot provide an abortion by either method above a specific gestation, prompt referral onwards is indicated. Delays between consultation and procedure contribute to the number of women obtaining abortions in the second trimester, particularly at 18 weeks or greater when the number of providers offering services decreases.[92, 93] Abortion-related morbidity and mortality also increase with gestational age[94, 95, 96] underscoring the importance of facilitating access as quickly as possible.

Abortion by D&E requires special expertise, an adequate case load, and particular staff attitudes. It may therefore be necessary for these procedures to be provided through agency arrangements with specialist providers.

RECOMMENDATION 24

C With respect to minimising delay, service arrangements should be such that

- Referral should be made within 2 working days to an appropriate service.
- Abortion services must offer assessment within 5 working days of referral or self referral.
- Services should offer women the abortion procedure within 5 working days of the decision to proceed.
- The total time from access to procedure should not exceed 10 working days.

Evidence supporting recommendation 24

The specification for Termination of Pregnancy Services (England) states that all service users should be offered an assessment appointment within 5 calendar days of referral or self-referral[58].

Increases in the proportion of abortions performed under 10 weeks would result in significant cost savings for the NHS, as a result of greater use of non-surgical and local anaesthetic methods, as well as the reduced risks to women consequent to reduced gestation.[97]

Appointments should be expedited for women who present beyond 12 completed weeks or require abortion for urgent medical reasons, to minimise further risk to health. Services which provide abortions only up to a certain gestational age should ensure rapid transfer of these women to appropriate providers via robust care pathways.

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RECOMMENDATION 25

✓ Women should be informed that they have a right to delay appointments and/or the procedure should they wish.

RECOMMENDATION 26

✓ Upon referral, women should be given the service provider's contact details.

RECOMMENDATION 27

C Inpatient services, provided in an appropriate centre and clinical setting should be available for women who are unsuitable for home or day case care.

Evidence supporting recommendation 27

Day case care is cost effective. The availability of abortion as a day case procedure can minimise disruption to women and their families. Treatment with mifepristone prior to mid-trimester abortion with prostaglandin reduces induction to abortion intervals to an extent such that many women undergoing these procedures may be managed as day cases. In a series of 500 women undergoing mid-trimester prostaglandin abortion, over two-thirds were managed as day cases.[98]

Reasons why women might need to undergo induced abortion as inpatients rather than day cases include:

- medical problems requiring assessment prior to anaesthetic or overnight stay following the abortion
- social indications, such as lack of an adult companion at home
- geographical factors, such as distance or transport problems
- patient choice

The percentage of women undergoing abortion requiring an overnight stay is very low. The availability of beds for these women must be agreed locally to reflect local circumstances.

RECOMMENDATION 28

✓ Services should have a protocol in place allowing early discharge after misoprostol for women undergoing medical abortion up to 9 weeks of gestation.

Early discharge after the administration of misoprostol for medical abortion up to 63 days is acceptable to women allowing them to spend less time in hospital thus maintaining their privacy and reducing disruption to their family.[99] This practice is within the terms of the Abortion Act[12] and could offer considerable savings to the NHS. It is not suitable or acceptable to all women but services should have protocols in place to allow it to happen and to make arrangements to confirm complete abortion in women who choose to go home.

Presently in Great Britain, abortions are permitted only in NHS hospitals and independent sector sites approved by the DH. The power to approve a 'class of place' for medical abortion is vested in the Secretary of State for Health but has never been enacted. In various other countries, gynaecologists perform medical abortions in their office with no reports of increased rates of side effects or complications.[100]

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The 1990 amendment to the Abortion Act introduced a subsection 1(3A)[15] giving the Secretary of State for Health the power to approve a 'class of place' for medical abortions. This has never been enacted. Thus, a mechanism exists for places to be approved specifically for medical abortion. A pilot on early medical abortion in a community setting evaluated well[100].

Since the first edition of this guideline (2000), the published literature on safety, efficacy and acceptability of taking the misoprostol at home has grown.[101, 102, 103, 104, 105, 106, 107, 108, 109, 100] A systematic review of this concluded that it is safe, effective and acceptable (paper submitted for publication). While taking misoprostol at home is not legal in Great Britain the evidence would support its use were that to be possible at some time in the future.

RECOMMENDATION 29

✓ The setting for abortion should be sensitive and responsive to women's needs, and should respect the need for privacy and dignity.

RECOMMENDATION 30

Commissioners should ensure that services meet the recommendations relating to:

- B Contraception after the abortion
- A/B Antibiotic prophylaxis
- B STI screening
- C Information provision after the abortion
- C Counselling after the abortion

Evidence for Recommendation 30

See Chapters 6 and 8.

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Chapter 5

Side effects, complications and sequelae of abortion – what women need to know

RECOMMENDATION 31

B Women should be advised that abortion is generally safer than continuing a pregnancy to term.

RECOMMENDATION 32

✓ Complications and risks should be discussed with women in a way that they can understand and should emphasise the overall safety of the procedure.

Evidence supporting recommendation 31 and 32

In a legal setting where sterile facilities are available, abortion is a safe procedure where major complications and mortality are rare at all gestations. National reporting systems record major complications (including haemorrhage, sepsis and uterine perforation) that occur prior to discharge. Estimated complication rates are 1–2 per 1000 abortions[3], although lack of standardisation of reporting criteria hampers collection of accurate data.

Although the absolute risk of major complications is low there is evidence that complications increase with increasing gestation.[110] A Cochrane systematic review comparing surgical and medical methods of abortion in the first trimester[83] identified no significant difference in complications between methods, although there were few sufficiently powered randomised studies to identify different rates for rare events. Comparison of surgical and medical methods of abortion[111, 112] after 13 weeks of gestation, in contrast, suggests medical abortion is associated with higher all cause adverse events although this evidence is dependent on few, small under-powered randomised trials and cohort studies.

A recent large registry-based cohort study from Finland of more than 42000 women compared complication rates (haemorrhage, infection, incomplete abortion, surgical injury, thromboembolic disease, psychiatric morbidity and death) in the first six weeks following medical and surgical abortion. Both methods are generally safe. The incidence of haemorrhage and incomplete abortion observed were higher in women undergoing medical abortion while complication rates requiring surgical treatment, although rare, were more common after surgical events. The rates of infection and serious morbidity did not differ between groups.[113]

Communicating the risk of complications associated with abortion in an understandable way to women undergoing abortion is essential to informed decision making. Women need to be informed about which options for abortion are available to them and the risks and uncertainties associated with each procedure. Perception of risk is more important than actual risk and may vary widely between individuals.[114, 115] Risk should be communicated in the form of numbers as well as words.

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This guideline recommends using the modified Calman scheme[116] to quantify risk alongside descriptors, in a way that is straightforward for both clinicians and women to interpret.

Table 5.1 Quantification of risk (modified Calman et al.[116])

Verbal Descriptor	Risk
Very common	1/1 to 1/10
Common	1/10 to 1/100
Uncommon	1/100 to 1/1000
Rare	1/1000 to 1/10 000
Very rare	Less than 1/10 000

Women should be referred to current RCOG guidance, *Understanding how risk is discussed in healthcare – information for you*.[117]

RECOMMENDATION 33

B Services should provide women with information about the physical symptoms and sequelae that may be experienced after abortion.

Evidence supporting recommendation 33

Women experience a range of physical symptoms following medical and surgical abortion that are considered within the normal range. The most common of these are pain and bleeding and gastrointestinal symptoms are frequent particularly after medical abortion. Women should be advised of this and of which features should alert them to seek further advice.

Compared with surgical abortion, women undergoing medical abortion at less than 14 weeks of gestation report significantly more pain and gastrointestinal symptoms during the procedure[84, 118, 90, 91, 119] and more bleeding over the first two weeks of follow up. This is hardly surprising since during surgical abortion placental tissue and blood are removed by vacuum aspiration while loss of the products of conception continues gradually for some days/weeks after medical abortion until the uterus is empty. A similar proportion of women who have had either surgical or medical procedures are still bleeding at 2 weeks after their abortion (around 22%) although women undergoing medical abortion report heavier loss.[84] The duration of bleeding is consistently reported to be longer after medical than surgical abortion and longer for abortion at 10–13 weeks compared with at 9 weeks or less. Women are more likely to seek medical help for bleeding after medical than surgical abortion and report bleeding that is more than they expected.[83, 120,] **Error! Bookmark not defined.**[, 121, 119]

RECOMMENDATION 34

✓ Services should inform women about the range of emotional responses that may be experienced during and following an abortion.

Evidence supporting recommendation 34

Women can experience a range of emotions during and after abortion that includes relief, sadness, anger, guilt and regret. Such reactions are normal. For some women recurring thoughts can also occur later when triggered by other life events such as difficulties with subsequent pregnancies, life milestones and birthdays. Most major life decisions result in complex feelings and the decision to have an abortion is for most women a difficult choice. The circumstances that lead to the unplanned pregnancy, how women are supported when faced with indecision and how they are enabled to

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make the right choice for them will influence the emotions they may experience during and after abortion. Women with more severe problems may need to be referred for counselling.[122, 123, 124]

RECOMMENDATION 35

Women should be informed of the following rare but serious complications that may occur:

B Uterine rupture has been reported in association with medical abortion. The risk is less than 1 in a 1000.

Evidence supporting recommendation 35

Case reports[125, 126, 127, 128] have described uterine rupture in women undergoing medical abortion at a gestation between 13 and 24 weeks with varied regimes. A large retrospective review of over 600 women undergoing mid trimester medical abortion[129] suggested an almost 20-fold increase in the risk among women who have had a previous caesarean section although more recent retrospective reviews of women undergoing abortion at different gestations failed to identify any cases of uterine rupture.[130, 131] Recent systematic review evidence does support the finding that caesarean section is a risk factor for uterine rupture; the absolute risk is less than 0.3%[132] which women may find acceptable.

RECOMMENDATION 36

B Women should be informed of the uncommon complications that may occur and of their possible clinical consequences. These may include:

- Severe bleeding requiring transfusion; the risk is lower for early abortions occurring in less than 1 in 1000 rising to around 4 in 1000 at gestations beyond 20 weeks
- Uterine perforation (surgical abortion only); the risk is in the order of 1–4 per 1000 and is lower for early abortions and those performed by experienced clinicians
- Cervical trauma (surgical abortion only): the risk of damage to the external os is no greater than 1 in 100 and is lower for early abortions and those performed by experienced clinicians

Women must be informed that should one of these complications occur, further treatment in the form of blood transfusion, laparoscopy or laparotomy may be required.

Evidence supporting recommendation 36

Haemorrhage is most commonly defined as blood loss greater than 500mls or severe bleeding requiring transfusion. It is difficult to get a true estimate of the risk of haemorrhage at the time of abortion, due to lack of standardised definitions and poor reporting. Many studies do not distinguish between immediate and later haemorrhage, its severity and the underlying aetiologies. Nonetheless national estimates suggest that less than 0.2% of procedures are complicated by haemorrhage of more than 500mls and the proportion requiring transfusion is less than this[3].The risk is less for early abortions (0.88 in 1000 at less than 13 weeks) than for late abortions (4.0 in 1000 at more than 20 weeks).

Although systematic review evidence comparing complications of medical and surgical abortion at different gestations suggested haemorrhage is more common following medical than surgical abortions, this did not reach statistical significance[83,111]. The Finnish cohort study[113] demonstrated rates of haemorrhage of 2.1% for early surgical abortion compared with 15.6% for early medical

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procedures. although this was based on coded diagnosis over the six weeks following abortion, did not distinguish severity and may represent greater help-seeking for bleeding problems amongst this group as discussed earlier. The much smaller proportion of this group requiring surgical intervention were also significantly more likely to have had medical rather than surgical procedures (2.9% compared with 0.9%). Studies of mid trimester procedures suggest that severe haemorrhage occurs in up to 0.9% of women undergoing D&E, with 0.2 % requiring transfusion.[133, 134, 135, 136, 137] In an observational study of mid trimester medical abortion, 0.7% of women required transfusion, however a comparative cohort study of the two methods failed to demonstrated a difference in transfusion rates between medical and surgical abortions.[138]

Although the evidence overall may suggest that women are more likely to suffer heavy bleeding following medical rather than surgical procedures, it is important to note that the risk of severe haemorrhage across all methods and gestations remains uncommon.

Evidence table 2 summarises rates of uterine perforation during surgical abortion reported in large case series (greater than 4000 women) that were identified during the development of the previous edition of this guideline. Series for inclusion were selected on the basis of study size (more than 4000 subjects). The more recent Danish cohort study[139] (56 117 subjects), published in 2002, reported a rate of uterine perforation of 2.3 in 1000 surgical abortions.

Evidence table 3 summarises incidences of cervical injury during surgical abortion up tp 12 weeks of gestation, reported in large case series identified during development of the earlier edition of this guideline. Rates vary considerably with older studies reporting rates of around 1%[140, 141] while more recent studies suggest the rates are less than 0.2%,[142,143,137,144, 145] which may be more typical of today's practice and reflect greater use of cervical preparation. However, some of the variation reflects the lack of an agreed definition of cervical injury and deficiencies in data collection. No new studies were identified.

RECOMMENDATION 37

B Women should be informed that surgical and medical methods of abortion carry a small risk of failure to end the pregnancy, necessitating a further procedure.

Evidence supporting recommendation 37

The quoted rate of failure from a study of 33 090 cases when suction aspiration was performed at 12 weeks or below was 2.3 per 1000 abortions.[146] The risk was greater for multiparous women, abortions performed at 6 weeks or earlier, when small cannulae were used, when the procedure was performed by a less experienced surgeon, or if the woman had uterine abnormalities.

A meta-analysis on efficacy of medical abortion[147] provides estimates for 'viable pregnancy' rates after different medical abortion regimens at a range of gestation bands. At mid-gestation (50–56 days) the summary viable pregnancy rate for the mifepristone and misoprostol regimens is calculated as 2.6% and for mifepristone with other prostaglandins regimen, 2.9%. A comparative review of medical and surgical methods for early abortion quoted continuing pregnancy rates of 0.9% for mifepristone/misoprostol abortion and 0.5% for vacuum aspiration.[148]

RECOMMENDATION 38

C Women should be informed that there is a small risk of incomplete abortion necessitating further intervention i.e. surgical intervention following medical abortion or re-evacuation following surgical abortion.

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Evidence supporting recommendation 38

Rates of surgical evacuation following either medical or surgical abortion vary according to diagnostic criteria and intervention threshold that vary between centres. Local rates of repeat procedures should be quoted wherever possible.

There are few randomised trials of surgical versus medical methods. However, in a partially randomised study, significantly more women having surgical abortions did not require further surgical intervention (98% of surgical versus 94% of medical[149] with a further study yielding similar results for procedures at 10–13 weeks (98% versus 95%)[120]. The Finnish registry-based study of more than 42 000 women undergoing medical and surgical abortions up to 9 weeks showed that 6 % of women having medical abortions needing surgical intervention for retained products compared with less than 1% of surgical abortions[113]. In a further single method study of 4132 cases of medical abortion less than 9 weeks, 2.3% required surgical evacuation of which 1.6% were incomplete abortions, 0.35`% missed abortions and 0.3% continuing pregnancy[118].

For medical abortion after 13 weeks, surgical evacuation may be required, either at the time for retained placenta or later for persistent retained products of conception. Quoted rates for surgical intervention vary widely between studies and across different regimes from 2.5% in one study[150] up to 53% in a UK multicentre study.[151]

RECOMMENDATION 39

B Women should be informed that infection of varying degrees of severity may occur after medical or surgical abortion and is usually caused by pre-existing infection. Prophylactic antibiotic use and bacterial screening for lower genital tract infection reduces this risk.

Evidence supporting recommendation 39

Genital tract infection, including pelvic inflammatory disease (PID), is a recognised complication of abortion. Post-abortion infection may result later in tubal infertility or ectopic pregnancy as well as causing morbidity in the immediate post-abortion period. Studies have shown that the presence of Chlamydia trachomatis, Neisseria gonorrhoea[152, 153, 154] and Bacterial vaginosis[155, 156] in the lower genital tract at the time of abortion is associated with an increased risk of infection. Incidence rates among the control groups in trials of prophylactic antibiotics for abortion suggest that infective complications occur in up to 10% of cases.[157, 158, 159, 160, 161, 162]

In a systematic review of 46 421 women investigating the frequency of infection following medical abortion at all gestations the incidence was low at 0.92%.[163] This is lower than has been reported in previous UK studies (2.54%) perhaps due to variations in both diagnostic criteria and thresholds for prescribing antibiotics. Eligible studies included both confirmed and presumptive diagnoses of infection treated with antibiotics. In a registry based Finnish study of 42, 619 women undergoing both medical and surgical abortion[113], rates of reported infection in the six weeks following the procedure, based on outpatient and inpatient attendances, were 1.7% with no difference seen between medical and surgical procedures. True ascertainment of rates is difficult due to variations in diagnostic criteria, antibiotic thresholds and differential use of follow up services.

RECOMMENDATION 40

A Women should be informed that induced abortion is not associated with an increase in breast cancer.

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Evidence supporting recommendation 40

In the past there has been conflicting evidence presented concerning a possible link between induced abortion and breast cancer[164, 165] and in the last edition of this guideline the Group concluded that there was no evidence that abortion increased the risk of breast cancer. Findings of the 2003 report by the American College of Obstetricians and Gynaecologists (ACOG),[166] which summarised evidence from the most methodologically robust studies, failed to demonstrate any associations concluding that 'Rigorous recent studies argue against a causal relationship between induced abortion and a subsequent increase in breast cancer risk'. Since then, there has been a growing body of evidence lending further support to these findings. Published evidence from two large cohort studies, the European Prospective Study on the Investigation into Cancer (EPIC)[167] and the Nurses Health Study 2,[168] showed no increase in the relative risk of breast cancer in women undergoing induced abortion regardless of age, number or timing of the abortion. In addition, a reanalysis of 53 epidemiological studies by the Collaborative Group on Hormonal Factors in Breast Cancer,[169] including data collected on more than 83 000 women also fails to demonstrate any association of induced or spontaneous abortion with breast cancer. This group reanalysed the findings of all identified epidemiological studies in two separate meta-analyses separating prospective and retrospectively collected data to eliminate reporting bias and found no associations in studies where data was collected prospectively. The WHO has concluded that induced abortion does not increase breast cancer risk.[170]

RECOMMENDATION 41

B Women should be informed that there are no proven associations between induced abortion and subsequent ectopic pregnancy, placenta praevia or infertility.

Evidence supporting recommendation 41

Studies relating to abortion and future reproductive outcomes identified during development of the previous edition of this guideline are summarised in Evidence table 6. No new evidence of a relationship between abortion and subsequent placenta praevia, ectopic pregnancy, subfertility or miscarriage was identified in the course of updating this guideline and much of the evidence presented is based on a review article of the long term health consequences of abortion published in 2002 by Thorp et al.[171]

Thorp and colleagues reported an association between induced abortion and placenta praevia across a number of heterogeneous studies of variable quality. Subsequent studies however have reported more reassuring findings. A Danish cohort study based on national registry data linkage involved 15 727 women whose first pregnancy was terminated and a reference cohort of 46 026 women.[172] No association with placenta praevia was seen. A case-control study from the USA involved 192 cases of placenta praevia and 622 controls.[173] The investigators concluded that risk of placenta praevia might have increased in a dose-response fashion with sharp curettage abortions, but that vacuum aspiration did not confer an increased risk.

Thorp et al. reviewed seven case–control and two cohort studies relating to abortion and subsequent ectopic pregnancy. Only two of the nine studies reported a positive association; these were relatively small case-control studies which relied on self-report of previous abortion. Large studies based on record linkage showed no association.

Published studies strongly suggest that infertility is not a consequence of uncomplicated induced abortion.[174, 175 , 176] Although women with a previous induced abortion appeared to be at an

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increased risk of infertility in countries where abortion is illegal, this is not the case in legal settings. There are some discrepancies among studies[177] but none was of sufficient power to detect a small association. In the review by Thorp et al. three case-control studies and four cohort studies relating to abortion and infertility were appraised. Two relatively small case-control studies, both from Greece, showed a positive association of abortion with subfertility *(ref to follow)*. Other studies found no association *(ref to follow)*. Thorp et al.[171] commented on methodological limitations of all studies which date from before 1999. No relevant new studies were identified during the updated literature search.

In two cohort and three case-control studies examining associations between induced abortion and miscarriage no significant association was identified *(ref to follow)*. Moreover, those that analysed data according to the number of abortions found no dose-response effect. However, some studies report conflicting findings. A study by Zhou suggests that women who become pregnant within 3 months of abortion are at increased risk of miscarriage.[178] A further cohort study from Shanghai of nearly 3000 women comparing primigravid women with women undergoing abortion by vacuum aspiration reported an adjusted odds ratio of 1.72 for miscarriage (95% CI 1.09–2.72) between abortion and reference cohorts.[179]

RECOMMENDATION 42

B Women should be informed that induced abortion is associated with a small increase in risk of subsequent preterm birth, which increases with the number of abortions .

Evidence supporting recommendation 42

A systematic review and meta-analysis by Shah et al. (2009)[180] suggests that a history of abortion is associated with a small increase in the risk of preterm birth giving an adjusted odds ration of 1.27 (95% CI 1.12–1.44) increasing to 1.62 (95% CI 1.27 to 2.07) with more than one abortion. A large Australian population study of 42269 births[181] comparing term with pre-term deliveries supports these findings. In this study, women with a history of previous abortion had 1.25 (95% CI 1.13–1.40) times the risk of preterm birth compared to those with no history, increasing with number of previous abortions. The evidence increasingly supports the findings of previous studies[179,180,181] which suggest a significant increase in the odds of preterm birth following abortion that lies somewhere between 1.2 and 2.0. Nonetheless these results should be interpreted with caution since few of the studies in the review controlled for confounders such as socio-economic status which is also associated with preterm birth. In addition no distinction is made between methods of abortion (medical versus surgical) or gestation where degrees of cervical dilatation vary widely and there is insufficient evidence to draw conclusions about the relative risks associated with medical and surgical procedures or the relationship with gestation.

The evidence also increasingly points to a relationship between miscarriage and preterm delivery. Whilst this has been conflicting in the past,[171,182,183] systematic review evidence[184] suggests that odds are similarly increased for both miscarriage and induced abortion. It is postulated that the increased risk is related to instrumentation of the cervix and uterus at the time of surgical evacuation, but further research is needed to increase understanding of the risk factors and the effects of gestation and abortion methods.

RECOMMENDATION 43

B Women should be informed that most women who have abortions do not experience adverse psychological sequelae.

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Evidence supporting recommendation 43

The great majority of women who have abortions do not experience adverse psychological sequelae. A systematic review of the evidence from 21 studies of abortion and adverse mental health outcomes did not support higher rates of a range of mental health outcomes in those who undergo abortion compared with their respective comparison groups, either women who delivered or women who had never been pregnant.[185] Although the evidence in this area is conflicting, there are significant design flaws in many of the studies,[186,187,188] and those studies that do support a relationship between abortion and adverse mental health outcomes tend to be weaker methodologically. The evidence review by Major et al. (2009)[186] which updates the report of the American Psychological Association Task Force on Mental Health and Abortion, 2008 confirms that the most rigorous studies support the view that any observed associations between abortion and mental health problems do not appear to be related to abortion itself but to pre-existing conditions and co-occurring risk factors.[188] Although abortion can be associated with a range of feelings, long term feelings of sadness, guilt and regret appear to linger in only a minority of women.[187]

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Chapter 6

Pre-abortion management

RECOMMENDATION 44

✓ Prior to referral, pregnancy should be confirmed by history and a reliable urine pregnancy test.

Evidence supporting recommendation 44

Confirmation of pregnancy from a clinical history and with a reliable CE marked* urinary pregnancy test before referring a woman to an abortion service will avoid a needless consultation which wastes time and money for both the woman and the receiving service.

6.1 The abortion decision

RECOMMENDATION 45

C Healthcare staff caring for women requesting abortion should identify those who require more support in the decision making process.

RECOMMENDATION 46

C Women who are certain of their decision to have an abortion should not be subjected to compulsory counselling.

Evidence supporting recommendation 44–46

All women attending an abortion service will require a discussion to determine the degree of certainty of their decision and their understanding of its implications. Clinic staff must be sensitive to the different stages of decision making that individual women have reached, and must be able to identify those who may require additional support and counselling. These may include young women, women with mental health problems, poor social support and where there is evidence of coercion. This help should be tailored to age, comprehension and social circumstances.

Not all women requesting an abortion will require intensive counselling. In an English study of 231 women presenting for abortion in the early 1980s, 91% of women had an unwanted pregnancy, only 6% were unsure of their decision to have an abortion and only 3% had a pregnancy which had initially been wanted.[189] More recently a formal measure of intendedness of pregnancy was used in two studies in Scotland. In the first[190] 92% of 316 and in the second 89.7% of women requesting an abortion had a clearly unintended pregnancy.[191]

* (*conformité européenne* certifying that the product has met European Union consumer safety, health or environmental requirements.)

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RECOMMENDATION 47

✓ Pathways to additional support, including counselling and social services, should be available.

Evidence supporting recommendation 47

While only a small minority of women experience clinically significant psychological sequelae after abortion (see Chapter 8.3), screening tests to identify women at risk and allow timely intervention may be useful. In a 2 year follow up study of 80 Norwegian women, pressure from a male partner was found to be the strongest predictor of emotional distress two years after an abortion, whereas women who chose abortion because they 'had enough children' had slightly better psychological outcomes than average.[192]

For the minority of women who require formal, therapeutic counselling, services should have referral pathways in place with access to trained counsellors with appropriate expertise.

The GDG favours the use of the term 'support' rather than 'counselling' to describe the routine responsibilities of an abortion service, but acknowledge that any of three recognised forms of counselling identified in The HFEA Code of Practice[193] may be required by women considering or undergoing induced abortion:

- Implications counselling: aims to enable the person concerned to understand the implications of the proposed course of action for themselves and for their family.
- Support counselling: aims to give emotional support at times of particular stress.
- Therapeutic counselling: aims to help people with the consequences of their decision and to help them resolve problems that may arise as a result.

RECOMMENDATION 48

✓ Women should be given information about the different methods of abortion appropriate to gestation, the potential side effects and complications, and their clinical implications.

RECOMMENDATION 49

✓ Where possible women should be given the abortion method of their choice.

Evidence supporting recommendations 48 and 49

Women will vary in the amount and type of information that they require prior to deciding on their preferred method of abortion. They should be provided with information that is relevant to their gestation, in a format that is appropriate for their age and degree of comprehension. The information should include the characteristics, potential side effects and complications (including their long-term implications) of the different abortion methods

Several studies have shown that the reasons for women preferring a particular abortion method are numerous and complex. The commonest reason for choosing surgical abortion is to avoid repeated visits to the abortion facility. Medical abortion is favoured because of fear of surgery, and a perception that it is easier, less painful and maintains privacy.[194, 88]

Provision before the abortion consultation of written information about choices of abortion has been shown to help women make more informed decisions. In a randomised controlled trial there was no

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significant difference in the abortion method chosen by women in Great Britain who were given an information leaflet but they were better informed, found decision-making easier, had lower risk-perception scores about both methods and more positive attitudes about medical abortion than those who did not receive written information.[195]

A partially randomised study assessed 445 Scottish women's preferences for, and acceptability of medical and surgical abortion at 10–13 weeks of gestation. Despite having a preference for a particular method, women were content with alternatives, however women were more likely to choose the same abortion method again if they had shown a preference for that method prior to abortion. The authors concluded that the availability of medical abortion is an important option for many women who wish to avoid surgery or anaesthesia and should be offered routinely in the late first trimester.[196]

In a randomised study of 1080 women assessing the predictors of acceptability of medical abortion, the authors concluded that satisfaction with medical abortion may be limited by differences between patients' expectations of pain and bleeding and their actual symptoms.[197] Information regarding the severity of symptoms, including risk of failure should be incorporated into patient information sources and counselling.

6.2 Initial assessment

Blood tests

RECOMMENDATION 50

C Pre-abortion assessment should always include:

- Determination of rhesus blood status

Where clinically indicated, pre-abortion assessment should also include:

- Determination of blood group with screening for red cell antibodies
- Measurement of haemoglobin concentration
- Testing for haemoglobinopathies

Evidence supporting recommendation 50

Ascertainment of rhesus status is required in order that Anti-D prophylaxis can be instituted as appropriate.[198, 199] If clinically indicated by a woman's history or family history, the 'group and screen' procedure should also include screening for IgG antibodies in case cross-matching and blood transfusion is required.

A systematic review, investigating routine preoperative testing, found that haemoglobin was lower than 10.0–10.5 g/dl in less than 5% of patients[198]. The National Institute for Health and Clinical Excellence (NICE) was unable to identify any direct evidence that measuring preoperative haemoglobin, haematocrit and full blood count in adults improved health outcomes for patients.[200] A retrospective American study demonstrated that the prevalence of anaemia (defined as haemoglobin <9 g/dL) among 9586 patients scheduled for elective low risk surgery was 0.8%, and that those who required transfusion (0.05%) all had clear pre-test clinical indictors of potential anaemia.[201] The National Abortion Federation (NAF) Clinical Policy Guidelines recommend

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haemoglobin testing before first trimester medical or surgical abortion in women with a history of significant anaemia and in all women undergoing second trimester surgical or medical abortion.[202, 203] However, the NAF 2010 Clinical Policy Guidelines make no reference to haemoglobin testing for either medical or surgical abortion at any gestation.[202]

The GDG was unable to find any evidence for routine screening for sickle cell trait prior to abortion or routine gynaecological surgery. However, sickle cell screening should be considered in those who have not been tested previously and have a family history of sickle cell disease or trait and/or who belong to one of the following ethnic groups: North African, West African, South/sub-Saharan African, Afro-Caribbean[200].

RECOMMENDATION 51

B It is not cost effective or necessary to cross-match routinely women undergoing induced abortion.

Evidence supporting recommendation 51

The incidence of haemorrhage after surgical abortion (with or without transfusion) ranges from 0.07–1.5/1000 with vacuum aspiration up to 14 weeks of gestation, increases in the mid-trimester to 5.6–8.6/1000 and has been reported as high as 21/1000 when D&E is performed with urea feticide.[204] The risk of haemorrhage requiring transfusion after early medical abortion has been reported as 1.3 per 1000[205] and 6 per 1000 in second trimester medical abortion.[206] Given such low rates of haemorrhage requiring transfusion it is not cost effective or necessary to routinely cross-match women undergoing abortion.

VTE risk-assessment

RECOMMENDATION 52

✓ All women undergoing an abortion should have a venous thromboembolism (VTE) risk assessment.

Evidence supporting recommendation 52

From June 2010, all providers of NHS acute services, including the independent sector are required to report the proportion of admitted adult patients who have been assessed for a risk of VTE using local admission procedures which use or incorporate the elements of the National VTE risk assessment tool. Women undergoing surgical abortion and women who are admitted for medical abortion should have a VTE risk assessment in line with the NICE Clinical Guideline 92. Non-admitted day cases and outpatients are out of the scope of the national policy and therefore women having an early medical abortion may not require VTE risk assessment.[207]

6.3 Cervical cytology

RECOMMENDATION 53

✓ Women who have not had cervical cytology screening within the recommended interval should be offered screening within the abortion service, or advised on when and where to obtain it.

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Evidence supporting recommendation 53

A woman's attendance at an abortion service is an opportunity to review broader aspects of her reproductive health care. If cervical cytology is due and the women has missed or defaulted from a previous appointment, consideration should be given to her having cytology during pregnancy. The NHS Cancer Screening Programmes (NHSCSP) recommends that unscheduled cervical screening is not justified in association with pregnancy unless a previous screening test was abnormal, providing the woman is in the age group to be screened and has undergone screening within the previous three to five years.[208] Providers need to be aware of the different age for the commencement of cervical cytology screening in Scotland compared to England and Wales.

The GDG is of the view that it is entirely appropriate for abortion services particularly within the NHS, to embrace these broader aspects of reproductive healthcare. However cervical cytology screening should not be an essential function of an abortion service. Where abortion services are provided through agency arrangements with independent providers, services might lack appropriate mechanisms for ensuring that results of cytology are followed up appropriately. If a cervical cytology screen is taken within the abortion service, then mechanisms are essential to ensure that the result is communicated to both the woman and, with permission, her General Practitioner (GP), acted upon appropriately and recorded within the local cervical cytology programme. If the woman declines to give permission for correspondence with her GP then she should be advised to attend her GP or local contraceptive and sexual health service for a smear six weeks after the abortion.

6.4 Ultrasound scanning

RECOMMENDATION 54

B Use of *routine* pre-abortion ultrasound scanning is unnecessary

RECOMMENDATION 55

C Ultrasound scanning must be available to all services as it may be required as part of the assessment.

RECOMMENDATION 56

✓ Ultrasound scanning should be provided in a setting and manner sensitive to the woman's situation.

Evidence supporting recommendations 54–56

Ultrasound is used commonly to assess pregnancies in women before they undergo abortion to confirm gestation and identify abnormalities such as ectopic pregnancy or uterine anomalies. This practice started when medical abortion was introduced with a strict upper limit for eligibility of 9 weeks of gestation, and has now become routine. However, there is no direct evidence that routine ultrasound improves either the safety or efficacy of abortion procedures and no randomised controlled trials have been undertaken comparing the outcome of abortions with and without routine pre-procedure ultrasound.

A number of studies have compared the estimation of gestation as assessed by ultrasound with that estimated by clinical assessment (pelvic examination and/or the date of the LMP).[209, 210, 211, 212, 213, 214] None have been randomised and in all cases the evidence is weak. It is clear however that while

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there are inevitably discrepancies between clinical estimation of gestation and ultrasound estimation the discrepancy is rarely large. In one US study 87% of physicians correctly assessed gestational age of 1016 women presenting for early medical abortion as being less than 63 days and gestation was underestimated in only 1% of cases.[211] In a second US study ultrasound dating matched clinical dating in 81% of cases.[215] A UK study reported discrepancy between ultrasound estimation and clinical estimation of dates in 30% of cases but in half the discrepancy underestimated gestation by more than 7 days while in the other half gestation was overestimated [212]. Unsurprisingly a Cochrane review on the use of ultrasound for fetal assessment in early pregnancy involving11 studies and 37,505 women concluded that routine ultrasound in early pregnancy improves gestational dating[214].

Since both medical and surgical methods are now both considered to be appropriate methods for inducing abortion at all gestational ages a small discrepancy in gestational age should not make a difference to the outcome of the procedure. Medical abortion is provided safely in resource poor settings which do not have access to routine ultrasound[216] and pre-abortion ultrasound is not routine before early medical abortion in France. The insistence of the need for routine pre-abortion ultrasound limits the settings in which abortion can be offered in Great Britain. Where it is routine it adds to the costs of the service and, in some places, limits the number of assessment appointments that can be made available. Many women are certain of the date of their last menstrual period (LMP) and some even know the date of conception.[217] Unless women are uncertain of the date of their LMP or unless there are clinical reasons to suspect 'wrong dates', or unless the woman is obese or difficult to examine, in the absence of a uterus that is palpable above the pubic symphysis ultrasound is arguably not indicated to confirm the gestation.

Inevitably ultrasonography will identify abnormalities such as ovarian cysts which would be missed on clinical examination however many of these are incidental findings which do not change the management of the woman. Selective pre-procedure ultrasound in the first trimester, only performed in case of discrepancy between LMP and uterine size, bleeding or symptoms indicative of ectopic pregnancy, has been reported as being both safe and effective when patients are cared for by experienced clinicians.[218]

RECOMMENDATION 57

C Women should be offered the opportunity to see the ultrasound image but should only be shown it if they so wish.

Evidence supporting recommendations 57

A systematic review[218] considered the acceptability of seeing the ultrasound image by women pre abortion. The majority of women who chose to view the image found it a positive experience. None of the women changed their mind about having the abortion after seeing the ultrasound image.

6.5 Prevention of infective complications

RECOMMENDATION 58

A/C Services should offer antibiotic prophylaxis effective against Chlamydia trachomatis and anaerobes for both medical (evidence grade: C) and surgical abortion (evidence grade: A).

RECOMMENDATION 59

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C The following regimens are suitable for periabortion antibiotic prophylaxis:

- doxycycline 100 mg orally twice daily for 3 days , starting on the day of abortion, *plus* metronidazole 1 g rectally or 800 mg orally prior to or at the time of abortion

OR

- azithromycin 1 g orally on the day of abortion, *plus* metronidazole 1 g rectally or 800 mg orally prior to or at the time of abortion

Evidence supporting recommendations 58 and 59

Genital tract infection, including pelvic inflammatory disease, occurs in up to 10% of induced abortions[157, 158, 159, 160, 161, 162]. This is particularly relevant in procedures which access the endometrial cavity through the cervix as some bacterial contamination is inevitable.[219] Post-abortion infection not only causes immediate morbidity but may also lead to tubal subfertility and an increased risk of ectopic pregnancy.[220]

5–10% of sexually active women under the age of 24 years in Great Britain are currently infected with Chlamydia trachomatis, the majority asymptomatic.[221] The presence of Chlamydia trachomatis, Neissaria gonorrhoea[222, 223, 154] or bacterial vaginosis[155, 156] in the lower genital tract at the time of abortion is associated with an increased risk of post-abortion infection.

There are 3 main strategies by which infective complications following abortion can be minimised:

- Universal prophylaxis
- Universal screening and treatment of positive cases i.e. 'screen and treat'
- Universal screening and universal prophylaxis (so-called 'belt and braces')

A systematic review by Sneiders et al.[224] concluded that the use of antibiotics was effective in preventing pelvic inflammatory disease (PID) after first trimester surgical abortion. Nitromidazoles, penicillin and tetracycline were the most effective antibiotic agents studied. Single dose pre- or peri-abortion antibiotic administration was as effective as a short course of antibiotics. The Society of Family Planning in the US[219] recommend the universal routine use of antibiotic prophylaxis prior to surgical abortion, preferably with a single dose or short course (3 days) of doxycycline initiated on the day of the procedure. Whilst the optimal antibiotic and dosing regimens remain unclear, both tetracyclines (e.g. doxycycline) and nitromidazoles (e.g. metronidazole) are proven to confer significant and comparable protection against post-abortion upper genital tract infection.

A retrospective analysis of the rates of serious infection among women having early medical abortion in Planned Parenthood clinics in the US[225] compared infection rates over a three year period. During this time routine treatment protocols for early medical abortion varied with respect to the route of administration of misoprostol and the use of prophylactic antibiotics. Data from 227,823 women, for whom 92 serious infections were reported, were analysed. The retrospective analyses demonstrated a considerable absolute reduction in the rate of serious infection from 0.25 per 1000 abortions to 0.06 per 1000 (76%). The study was retrospective and observational and not only the administration of antibiotics but also the route of administration of misoprostol changed during the period of study; however the sample size was huge.

Sneider et al.[224] (whose systematic review included the Fjerstadt study) concluded that there was insufficient evidence regarding antibiotic prophylaxis for first trimester medical abortion, and neither the WHO[2] nor the Society of Family Planning[219] recommend universal routine antibiotic

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prophylaxis prior to medical abortion. However The National Abortion Federation guidelines recommends antibiotics should be given to all women at the time of surgical abortion and that women undergoing medical abortion should be able to have antibiotic prophylaxis if they are considered to be 'high risk' or upon request**Error! Bookmark not defined.**.

In the context of service delivery in Great Britain the GDG agreed to recommend antibiotic prophylaxis for all women undergoing abortion regardless of the method.

STI screening

RECOMMENDATION 60

B All women should be screened for Chlamydia trachomatis and undergo a risk-assessment for other sexually transmitted infections (STIs) (e.g. HIV, syphilis), and screened for them if appropriate.

RECOMMENDATION 61

C A system for partner notification and follow up or referral to a sexual health service should be in place.

RECOMMENDATION 62

✓ Services should make available information about the prevention of sexually transmitted infections.

Evidence supporting recommendations 60–62

Routine universal antibiotic prophylaxis without prior screening for sexually transmitted infections (STIs) misses the opportunity to identify women with sexually transmitted infections and the opportunity to screen and treat their sexual partners. Bacteriological screening of the lower genital tract before abortion, with treatment of those found to be carrying genital tract organisms, is considered by some to be a more appropriate strategy,[158, 159, 160, 161, 162, 221, 222, 223, 156, 224, 225, 226] especially since only 10–13% of women attending abortion services screen positive for Chlamydia infection.[227] This is a cheaper option than giving all women undergoing abortion antibiotic prophylaxis and screened them for STIs.

Sepsis (particularly associated with Gp A streptococcal infection) was the leading cause of direct maternal death in Great Britain accounting for 29 deaths in the 2006–2008 triennium.[228] Whilst abortion is not specifically mentioned, the report recommends that appropriate antibiotic prophylaxis is crucial peri-abortion and that women should be given information regarding the risks, signs and symptoms of genital tract infection.

With regard to treatment regimens, the British Association for Sexual Health and HIV (BASHH) recommends doxycycline 100 mg twice daily for 7 days or azithromycin 1g orally for the treatment of uncomplicated Chlamydia trachomatis[221]. The Scottish Intercollegiate Guidelines Network endorse azithromycin 1g orally along with follow up and partner notification of all positive patients.[229] Treatment of bacterial vaginosis is recommended by BASHH and involves metronidazole, either 400 mg twice daily for 5–7 days or 2g as a single dose.[230]

Abortion services protocols should include policies on the offering of HIV tests in line with the UK National Guidelines for HIV testing[231] and should take into account the local prevalence of HIV and

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resource constraints. Where abortion services choose to offer HIV testing local protocols must ensure that verbal consent is obtained.[231]

It may be appropriate to offer immunisation to women at high risk of hepatitis B, regardless of the results of pre-abortion testing. High-risk groups include intravenous drug users and commercial sex workers. However, hepatitis B immunisation should not be an essential function of an abortion service. Where abortion services are provided through agency arrangements with independent providers, services might lack appropriate mechanisms for ensuring that the immunisation regime is completed once the woman returns home. If hepatitis B immunisation is initiated within the abortion service, then mechanisms are essential to ensure that this is communicated to both the woman and, with permission, her GP, and acted upon appropriately. When managing such patients, abortion service staff should seek guidance from their local virology department regarding the need for immunisation and the appropriate vaccine course.

6.6 Contraception

RECOMMENDATION 63

C All appropriate methods of contraception should be discussed with women at the initial assessment and a plan agreed for contraception after the abortion.

Evidence to support recommendation 63

The evidence regarding the value of discussing contraceptive options before the abortion is conflicting.

A randomised trial of 420 Icelandic women comparing pre abortion contraceptive counselling with post abortion counselling demonstrated no significant effect on contraceptive use 4–6 months after the abortion (86%, 85%).[232] In contrast, a retrospective casenote review of 272 American women undergoing abortion found an increase in the number attending for follow-up and a decrease in the number of women without a contraceptive plan among those counselled about contraception before the abortion.[233]

In the absence of good evidence, the GDG agreed that advising women about contraception at every opportunity during the abortion process seems sensible.

6.7 Feticide

RECOMMENDATION 64

C Feticide should be performed before medical abortion after 21 weeks and 6 days gestation to ensure that there is no risk of a live birth.

Evidence supporting recommendation 64

Inducing fetal death before medical abortion may have beneficial emotional, ethical and legal consequences.[234] The RCOG guidance on Termination of Pregnancy for Fetal Abnormality (published in 2010) clearly explains the legal situation around late stage abortions (chapter 2)[7]. Where a decision to abort a pregnancy after 21 weeks and 6 days is taken, feticide should be routinely offered. In abortions where the fetal abnormality is not compatible with life then abortion

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without feticide may be preferred. However, in cases where the fetal abnormality is not lethal or the abortion is not for fetal abnormality and is being undertaken after 21 weeks and 6 days of gestation then failure to perform feticide could result in a live birth and survival which contradicts the intention of the abortion.[235] Regarding fetal pain and awareness, the RCOG has published guidance and concluded that

'In reviewing the neuroanatomical and physiological evidence in the fetus, it was apparent that connections from the periphery to the cortex are not intact before 24 weeks of gestation and, as most neuroscientists believe that the cortex is necessary for pain perception, it can be concluded that the fetus cannot experience pain in any sense prior to this gestation'.[236]

Very few abortions on grounds 'C' or 'D' are undertaken at late gestations. Only 9% of abortions occur after 13 weeks and only 1.5% occurred after 20 weeks of gestation[3]. Those few are, for the most part, undertaken within the specialist independent sector, in Great Britain. When the method of abortion chosen is surgical (dilatation & evacuation) by a specialist practitioner, the nature of the procedure ensures that there is no risk of a live birth, although in one study 91% of women indicated a preference that the fetus was dead.[237] When medical abortion is chosen, then special steps are required to ensure that the fetus is dead at the time of abortion. The RCOG recommends feticide for abortions over 21+6 weeks except in the case of lethal fetal abnormality and that feticide should be always be performed by an appropriately trained practitioner (under consultant supervision) using aseptic conditions and with continuous ultrasound[7].

The RCOG recommends intracardiac potassium chloride (KCl) 2–3 mlstrong (15%) injection into a cardiac ventricle. A repeat injection maybe required if asystole has not occurred after 30–60 seconds. Asystole should be observed for at least 2 minutes and fetal demise should be confirmed by ultrasound scan after 30–60 minutes[7].

Fetal demise may also be induced by intra-amniotic or intrathoracic injection of digoxin (up to 1 mg) and by umbilical venous or intracardiac injection of 1% lignocaine (up to 30 ml), however neither procedure consistently induces fetal demise[7].

A dose of digoxin 1 mg given either intra-amniotically or intra-fetally will cause fetal death in 87% of cases, the latter, however, is much more rapid.[238] A dose of digoxin 1.5 mg given intra-amniotically caused death within 20 hours (most still had fetal cardiac activity at 4 hours.[239] In a large retrospective review Molaei et al. (2008) concluded that the overall failure rate with digoxin was 7%, although there were no failures with an intra-fetal dose of 1 mg.[240] Importantly, in this review, there were no adverse effects at any of the doses used.

Intracardiac injection of either KCl or intra-thoracic digoxin require considerably more skill than intra-amniotic injection of digoxin. While the latter may be slightly less effective in inducing fetal demise its use may be an option for services that lack personnel with sufficient skill in administering intra-cardiac injections.

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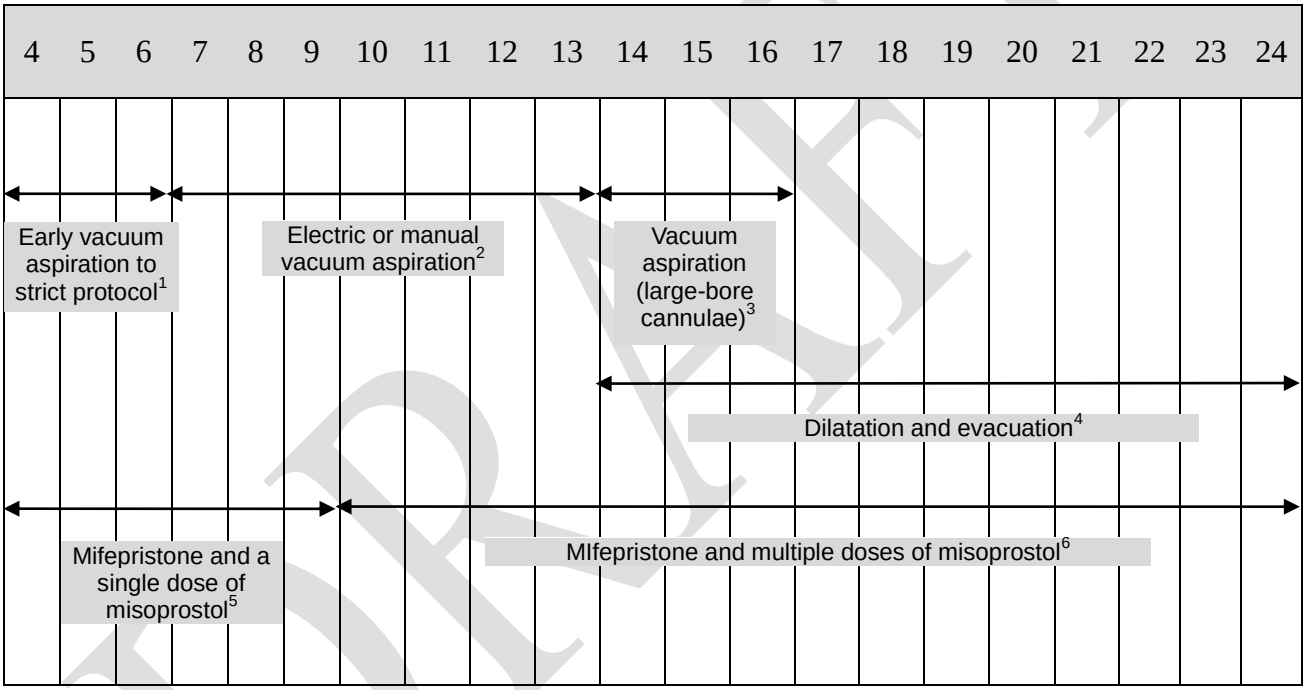
Chapter 7

Abortion Procedures

Abortion on grounds relating to the physical or mental health of the mother or of her existing children can be performed within the law at gestations up to 24 weeks[15]. At all gestations up to this limit, abortion can be performed using either surgical or medical methods, however different abortion techniques are appropriate at different gestations. Figure 7.1 summarises those methods considered by the GDG to be appropriate for use in abortion services in Great Britain for women presenting in different gestation bands. As this guideline focuses on abortion for maternal health reasons, methods for abortion beyond 24 weeks are not discussed. General recommendations about abortion procedures are discussed in Chapter 4, recommendations in this chapter relate to specific techniques.



1 Surgical abortion by means of vacuum aspiration at gestations below 7 weeks. To increase confidence that the gestation sac has been removed, protocols should include safeguards such as examination of the aspirate for the presence of the gestational sac and follow-up serum hCG estimation if needed.
2 Surgical abortion using electric or manual vacuum aspiration. The uterus is emptied using a suction cannula. Sharp curettage is not recommended.
3 Surgical abortion using vacuum aspiration and large bore suction cannulae and tubing
4 Surgical abortion using a combination of vacuum aspiration and specialised forceps
5 Medical abortion using a single oral dose of the anti-progesterone, mifepristone, followed by a single dose of prostaglandin.
6 Medical abortion using a single oral dose of the anti-progesterone, mifepristone, followed by multiple doses of prostaglandin.

Figure 7.1 Summary of abortion methods appropriate for use in abortion services in Great Britain for women presenting in different gestation bands

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Since many of the recommendations refer to abortions at different gestations the GDG has included a table (below Table 1) reminding readers of the duration of pregnancy in days for each week of gestation.

Table 7.1 Clarifying gestation

Completed weeks	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Days	0–6	7–13	14–20	21–27	28–34	35–41	42–48	49–55	56–62	63–69	70–76	77–83	84–90	91–97

7.1 Surgical methods of abortion

Vacuum aspiration

RECOMMENDATION 65

B Vacuum aspiration is an appropriate method of surgical abortion at gestations up to 13 weeks.

RECOMMENDATION 66

A Either electric or manual vacuum aspiration may be used as both are effective and acceptable to women and clinicians.

Evidence supporting recommendations 65 and 66

It is accepted practice in Great Britain that vacuum aspiration is preferable to sharp curettage for surgical abortion. An updated Cochrane review,[241] which included only two trials (dating from the 1970s), identified few statistically significant differences, but vacuum aspiration was associated with shorter operating times than sharp curettage. Comparative trials of evacuation methods for miscarriage management also found that vacuum aspiration takes less time to perform, as well as being associated with significantly less blood loss and pain than sharp curettage.[242]

Manual vacuum aspiration (MVA) is a uterine evacuation technique employing a hand-held syringe. Local anaesthesia and analgesia are commonly used for pain management during the procedure; however, it can also be performed under general anaesthetic or conscious sedation. In comparative trials, there were no differences in complications, duration of procedure or patient preferences[241]. Clinicians reported difficulty more frequently in performing the abortion by MVA at gestation greater than 9 weeks. Thus either an electric or manual device may be used for vacuum aspiration procedures; however, clinicians must be aware of their skill level when using MVA at gestations higher than 9 weeks.

One randomised trial found no statistically significant differences in cervical injury, febrile morbidity, blood transfusion, antibiotic use, or incomplete evacuations with flexible as compared to rigid vacuum cannulae[241]. A small randomised trial has investigated the usefulness of a specially lubricated cannula for early surgical abortion.[243] Results were inconclusive and no recommendation can be made.

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RECOMMENDATION 67

B Vacuum aspiration under 7 weeks of gestation should be performed with appropriate safeguards to ensure complete abortion including inspection of aspirated tissue, followed by ultrasound and serial serum hCG determination if indicated.

Evidence supporting recommendation 67

A prospective cohort study of abortion procedures performed in the 1970s found that electric vacuum aspiration performed at 6 weeks of gestation or less had a higher failure rate than when performed at 7 to 12 weeks of gestation.[244] This finding led to the recommendation that surgical abortion should be avoided at very early gestations. However in a series of 2 399 surgical abortions undertaken to a rigorous protocol (which included pre-abortion urinary pregnancy testing and ultrasound assessment, inspection of aspirated products under magnification and follow-up by serum hCG estimation in those women in whom no gestation sac was verified in the aspirate), the failed abortion rate at 6 weeks or less was only 0.13% or less.[245]

A subsequent study using the same rigorous protocol reported on the outcome of 1,132 procedures performed at three clinics.[246] The failed abortion rate was 1.5% for the total study population and 2.3% among the 750 women successfully followed-up at 2 weeks. Of note, electric vacuum aspiration was allowed and used in 40% of cases. Procedures performed by manual vacuum aspiration were associated with the lowest continuing pregnancy rate (1.1%). Nevertheless, this is higher than the rate reported by Creinin and Edwards[245], and also higher than the rate of 0.1% among women at less than 49 days of gestation reported by Ashok et al. in a UK series of early medical abortions[118].

The GDG was unable to identify any randomised controlled trials comparing such surgical techniques with mifepristone and misoprostol for early medical abortion. A number of randomised trials have compared prostaglandin-only regimens or mifepristone with other prostaglandins and vacuum aspiration.[83, 247, 248, 249, 250, 251, 252] The results of these studies did not strongly favour either method as ongoing pregnancy was rarely, if ever, reported.

In view of these findings, the GDG recognises that very early surgical abortion is an option, but advises that the procedure should be undertaken using a rigorous protocol and appropriate safeguards. Women should be advised of the potential need for further evaluation with serum blood testing and additional follow-up visits in the case of a failed procedure.

RECOMMENDATION 68

A Vacuum aspiration may be performed over 13 weeks of gestation using larger bore cannula and suction tubing, however as forceps are often required to remove larger fetal parts, use of this method must be determined by the skills and resources of the operating surgeon.

Evidence supporting recommendation 68

Vacuum aspiration can be performed to 16 weeks of gestation using large-bore cannulae (14–16 mm in diameter), although forceps are often needed to remove larger fetal parts.[253] Cannulae greater than 12 mm in diameter and the larger suction tubing required are not readily available in Great Britain. The method of choice at gestations above 13 weeks therefore varies according to resources and the skills and experience of local clinicians.

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A cohort study from Oxford has shown that morbidity after first-trimester abortion is directly related to gestation and inversely related to the seniority of the surgeon.[254] This finding suggests that abortion procedures, particularly those at 12 weeks and above, should not be delegated to junior team members without appropriate supervision.

RECOMMENDATION 69

✓ During vacuum aspiration, the uterus should be emptied using the suction cannula and blunt forceps (if required) only. The procedure should not be routinely completed by sharp curettage.

RECOMMENDATION 70

C While access to ultrasound during vacuum aspiration is recommended for difficult cases, it is not necessary for routine procedures.

Evidence supporting recommendations 69 and 70

Clinicians differ in the techniques they use to ensure that the uterus has been completely emptied. The GDG believes there is no need to undertake routine sharp curettage at the end of a vacuum aspiration. The 'gritty' sensation resulting from the completely emptied uterus clamping down around the suction cannula provides sufficient reassurance. A report of a comparative trial also highlighted the risks of sharp curettage, including Asherman's syndrome, and suggested routine intra-operative ultrasound as a means of obviating the need for sharp curettage.[255]

No trials were identified that specifically evaluated the use of ultrasound to assess the uterus during and after vacuum aspiration to confirm a complete abortion.

Three trials evaluated the impact of ultrasound at the time of vacuum aspiration on intra- and post-operative complications. In each study, routine sharp curettage was also performed. In the first trial, continuous abdominal ultrasound did not significantly affect the incidence of immediate complications. The use of ultrasound was associated with a significant reduction in the rate of evacuation for retained products of conception (0 vs 4.7%) and infection (1.9% vs 7.5%), however the complication rate in the control group was higher than published in other studies.[256] Other outcomes such as blood loss, procedure time, days of analgesia use, post operative bleeding and convalescence were also lower in the intervention group. In the other trials, a single transvaginal ultrasound examination was performed at the completion of the evacuation and a repeat aspiration performed in most cases if the endometrial thickness was greater than or equal to 8mm.[257, 258] Retained products of conception were later diagnosed significantly less frequently in the intervention groups, however these results should be interpreted with caution. Other studies have shown that the uterine cavity has a variable appearance following successful evacuation[259, 260] and that endometrial thickness is not a useful predictor of the need for subsequent uterine evacuation for retained products of conception.[261]

Dilatation and evacuation (D&E)

RECOMMENDATION 71

A Surgical abortion by D&E, preceded by cervical preparation, is appropriate for pregnancies above 13 weeks of gestation.

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RECOMMENDATION 72

B Continuous ultrasound guidance during D&E is recommended to reduce the risk of surgical complications.

Evidence supporting recommendations 71 and 72

Dilatation and evacuation is a safe and effective method of surgical abortion following specialised training.[111, 262] A retrospective cohort study of 297 women compared the complication rates of D&E with misoprostol-only regimens of medical abortion.[263] Overall, women who underwent medical abortion were significantly more likely to have a complication than women who underwent D&E (29% versus 4%). Women who underwent medical abortion with misoprostol were less likely to have complications than women treated with other regimens, but still had more complications than those having D&E (22% versus 4%). The most common complication of medical abortion was retained products of conception requiring surgical evacuation but, even when these were excluded, women who underwent medical abortion still had more complications, including one case of uterine rupture.

The use of real-time ultrasound scanning during D&E can reduce the perforation rate. In a study comparing 353 elective abortions (16 and 24 weeks of gestation) performed without ultrasound, with 457 abortions in which ultrasound was routinely employed[264] the rate of uterine perforation was 0.2% in the scanned group compared to 1.4% in the control group.

Historically, it has been considered that D&E is a risk factor for subsequent adverse pregnancy outcomes, including cervical weakness, pregnancy loss and preterm birth. A retrospective case series included 600 women who underwent mid-trimester D&E between 1996 and 2000.[265] Interpretation of the findings is difficult, as no reference cohort of women who had not undergone D&E was described. Nevertheless, rates of adverse pregnancy outcomes appeared similar to those of unselected populations. The authors concluded that 'second-trimester D&E is not a risk factor for mid-trimester pregnancy loss or spontaneous preterm birth'.

D&E is the commonest method used at gestations above 13 weeks in non-NHS abortion services in England. Few surgeons in the NHS perform D&E. D&E can be undertaken safely by providers who have been trained in the technique, have the necessary instruments and a caseload sufficient to maintain their skills. For those lacking the necessary expertise and caseload medical abortion using mifepristone and a prostaglandin is appropriate.

Cervical preparation for surgical abortion

RECOMMENDATION 73

B Cervical preparation should be considered in all cases, but particularly in high risk groups.

RECOMMENDATION 74

B The following regimens are optimal for cervical preparation up to 14 weeks of gestation:

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- [*]Misoprostol 400 µg administered vaginally 3 hours prior to surgery or sublingually 2–3 hours prior to surgery.

RECOMMENDATION 75

B Vaginal misoprostol can be administered either by the woman herself or by a clinician.

RECOMMENDATION 76

B After 14 weeks of gestation, osmotic dilators provide superior dilatation to medical methods; however misoprostol is an acceptable alternative up to 18 weeks.

Evidence supporting recommendations 74–76

For surgical abortion, it is well established that young age is a risk factor for cervical damage[266] and that increasing gestation (particularly among multiparae) is associated with increasing risk of uterine perforation.[110] Methods of cervical ripening include pharmacologic agents and osmotic dilators. All methods are generally safe, although their efficacy and side-effects vary.[267] No published study has investigated whether pharmacological methods of cervical priming reduce rare complications such as uterine perforation and cervical laceration. However, medical methods do decrease the duration of the abortion procedure. This may be particularly important with increasing gestational age, as mechanical dilation at later gestational ages takes longer and becomes more difficult. The side-effects, including pain,that women experience with cervical ripening needs to be balanced against the reduction in the time taken to complete the procedure. Mifepristone 200 mg, osmotic dilators, and misoprostol 400 µg administered either vaginally or sublingually, are all effective for cervical preparation[267]. Nitric oxide donors are not recommended as they are ineffective.[268]

Gemeprost 1 mg vaginally, 3 hours prior to surgery or mifepristone 200 mg orally, 36–48 hours prior to surgery are both effective and are licensed preparatory regimens. However in Great Britain misoprostol is preferred based on effectiveness, side effect profile, cost, and ease of use.

Misoprostol by the vaginal route is associated with the fewest gastrointestinal side effects and 3 hours is the optimal duration of use. Efficacy is not compromised if women self-administer the vaginal tablets.[269] Sublingual administration for 2–3 hours is superior to vaginal administration, but is associated with more adverse gastrointestinal effects. Administration of prostaglandins for cervical priming can be associated with painful cramps, bleeding, and unexpected expulsions. Therefore, extending the duration of use beyond those recommended should be avoided[267].

Cervical dilation for D&E must be sufficient to allow passage of operative instruments and fetal parts without causing injury to the cervical canal.[270] Few randomised controlled trials exist from which to determine the optimal regimen for cervical preparation before D&E, particularly beyond 20 weeks.[271] Buccal misoprostol in doses ranging from 400–800µg, appears to achieve adequate cervical preparation up to 18 weeks of gestation.[272, 273, 274] Repeated doses are sometimes necessary and additional manual dilation is frequently required.

[*] The dose of mifepristone (200 mg) recommended for medical abortion at all gestations is unlicensed. Similarly, misoprostol is unlicensed for induction of abortion at any gestation and via all routes of administration, nor is it licensed for cervical preparation. Women undergoing medical abortion or cervical preparation should be informed of this but reassured that these regimens are evidence-based, safe, and widely used.

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Overnight placement of osmotic dilators results in greater cervical dilation and easier subsequent manual dilatation than prostaglandins administered on the day of surgery.[275, 276] The addition of misoprostol shortly before D&E did not significantly improve initial cervical dilation in women 13–21 weeks of gestation.[277]

The only study which examines mifepristone for cervical preparation prior to D&E[278] compared a combination regimen with misoprostol alone. Greater initial cervical dilation was achieved with the addition of mifepristone; however, several women in this group aborted spontaneously before surgery.

Pain relief for surgical abortion

Anaesthesia

RECOMMENDATION 78

B Services should be able to provide surgical abortions without resort to general anaesthesia.

Evidence supporting recommendation 78

In the 1970s, the relative safety of surgical abortion performed with either local or general anaesthesia had not been clearly established. A number of observational and partially randomised studies comparing the two techniques demonstrated the benefits of local anaesthetic on a variety of outcomes (Evidence table *n*). A more recent study from India suggested that women see advantages in local anaesthesia and some are willing to accept additional short-term pain in exchange for these advantages.[279]

Local anaesthetic may be preferable to service providers because it can be administered outside a theatre setting and with fewer personnel, making it less costly. For women, its use removes the need to fast in preparation for the procedure, has quicker recovery, and avoids the drowsiness and other after-effects of the sedating medication given with a general anaesthetic or conscious sedation.

Women and clinicians in Great Britain are relatively unfamiliar with abortion under local anaesthesia, although its use is increasing. The GDG feels strongly that services should make the option of abortion under local anaesthesia available, starting with low-gestation procedures and advancing in gestational age as experience increases.

A paracervical block is the usual local anaesthesia for first-trimester surgical abortion although data on its effectiveness is heterogeneous and limited.[280, 281, 282, 283] The technique is not standardised, but some variations do show a small reduction in pain compared to others. The pain of cervical dilation is reduced with deep injection of the paracervical block,[284, 285] waiting 3 minutes between injection and dilation,[286] and with adding a 4% intrauterine lidocaine infusion.[287] All but waiting 3 minutes also decreased pain with aspiration. Premedication with ibuprofen or naproxen also improved intra- and post-operative pain.[288, 289]

An alternative to an injected local anaesthetic is the application of a topical anaesthetic jelly.[290]

RECOMMENDATION 79

C If conscious sedation is used during surgical abortion, it should be undertaken only by trained practitioners and in line with DH guidance.

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Evidence supporting recommendation 79

Conscious sedation is used in place of general anaesthesia by some abortion providers. Regimens typically include an intravenous opioid (such as fentanyl) plus an intravenous sedative (such as midazolam or propofol).

In a Cochrane review of pain control for first trimester surgical abortion[280], three studies investigating conscious sedation were discussed. The authors concluded that the addition of conscious intravenous sedation using diazepam and fentanyl to paracervical block decreased procedural pain.

Two UK reports[291, 292] set out the requirements for services choosing to offer conscious sedation.

Analgesia

RECOMMENDATION 80

B All women should routinely be offered pain relief (e.g. NSAIDs) during surgical abortion.

Evidence supporting recommendation 80

In routine clinical practice, analgesia is offered to women following surgical abortion and both during and after medical abortion. One randomised trial evaluated the use of a nonsteroidal anti-inflammatory drug (NSAID), diclofenac, at the time of cervical priming with oral misoprostol prior to suction termination under sedation with sublingual lorazepam[293] but reported no differences in pain control with aspiration or postoperatively, or with acceptability of pain control. However, this study provided reassurance that treatment with a NSAID did not reduce the efficacy of misoprostol cervical priming.

There is little research evidence to guide the choice of analgesic regimens.

RECOMMENDATION 81

A Prophylactic paracetamol (oral or rectal) is ineffective in the reducing pain after surgical abortion and is not recommended.

Evidence supporting recommendation 81

Four randomised trials have assessed the utility of prophylactic oral or rectal paracetamol on pain after surgical abortion.[294, 295, 296, 297] None demonstrated a benefit to paracetamol over placebo. A Cochrane review on pain control in first trimester surgical abortion also concluded that there was no benefit to pre-medication with paracetamol or a compound containing paracetamol with codeine[280]. This review found the most consistent reduction in pain post-operatively occurred in women who had received an opioid (particularly fentanyl) along with propofol and some benefit to premedication with IM ketorlac or diclofenac or oral lornoxicam.

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7.2 Medical methods

RECOMMENDATION 82

B Medical abortion using mifepristone and a prostaglandin is effective and appropriate at any gestation.

Early medical abortion (gestation up to 63 days)

RECOMMENDATION 83

A For medical abortion to 63 days a dose of *200 mg of mifepristone in combination with misoprostol is appropriate

RECOMMENDATION 84

B The following regimens are recommended for early medical abortion up to 63 days gestation.

- *Mifepristone 200 mg orally followed 24–48 hours later by misoprostol 800 µg given by the vaginal, buccal or sublingual route. Vaginal misoprostol may be administered by a clinician or self-administered by the woman.
- For gestational ages up to 49 days, *200 mg oral mifepristone followed 24–48 hours later by 400 µg of oral misoprostol may be used.

RECOMMENDATION 85

B For women at 50–63 days of gestation, if abortion has not occurred 4 hours after administration of misoprostol, a second dose of *misoprostol 400 µg may be administered vaginally or orally (depending upon preference and amount of bleeding).

Evidence supporting recommendations 82–85

The GDG evaluated systematic reviews of the studies that resulted in the combined mifepristone and prostaglandin regimens in current use for early medical abortion. Single agent regimens have been found to have unacceptable failure rates. In a randomised, double blind, placebo controlled trial comparing a regimen of mifepristone and misoprostol with misoprostol alone up to 56 days gestation, complete abortion rates were 96% and 88% respectively ($p < 0.05$).[298] A Cochrane review examined 39 trials of early medical abortion including combined and prostaglandin only regimens.[299] All but one of the five trials reported higher effectiveness with the combined regimen.

Single agent regimens are not considered to have a role in abortion practice in Great Britain, where mifepristone is readily available, and are not considered further in this guideline.

In a multicentre randomised trial comparing a combination of methotrexate and misoprostol with mifepristone and misoprostol, abortions with mifepristone completed faster than those with

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methotrexate, but the overall success rate, adverse effects and complications were similar.[300] Although methotrexate may have a place in countries where mifepristone is unavailable, it is not considered further in this guideline.

Evidence from a randomised trial (level Ib evidence) indicates that a dose of 200 mg has similar efficacy when compared with 400 mg or 600 mg.[301] This study used the prostaglandin gemeprost, but Level III evidence from large case series, using 400 μg of oral misoprostol following either 200 mg or 600 mg of mifepristone confirmed that there was no difference in efficacy between the two regimens.[302]

An early WHO multicentre trial included women at gestations up to 56 days.[301] The WHO has since conducted a similar trial involving 896 women at gestations of 57–63 days comparing 200 mg and 600 mg of mifepristone in combination with gemeprost 1 mg vaginally.[303] Again, both regimens had similar efficacy.

Some studies have investigated whether the dose of mifepristone could be lowered further. One multicentre trial (1,224 women at gestations of less than 57 days) investigated the impact of reducing the dose of mifepristone to 50 mg, however this dose was associated with a 1.6 times higher failure rate than the 200 mg dose.[304] A more recent study aimed to determine whether 100 mg and 200 mg mifepristone followed by 800 μg of vaginal misoprostol taken 24 or 48 later were equivalent in efficacy.[305]

Equivalence was demonstrated between both the doses of mifepristone and the two intervals for administration of misoprostol.

This suggests that a dose of 100 mg mifepristone may be adequate. However, verification from studies in other centres is required before this dose is adopted in routine practice.

Historically, the conventional PGE1 analogue used for abortion procedures was gemeprost. A 1 mg vaginal pessary costs approximately £43 and is highly temperature sensitive. A series of studies reviewed by the GDG demonstrated that the alternative E1 analogue, misoprostol, which costs less than £1 per dose, is as, if not more effective for early medical abortion, cervical priming and medical abortion from 13 to 24 weeks.[306, 307, 308, 309, 310, 311, 312] In addition a single centre study suggested that women felt more pain with the gemeprost.[313]

The GDG therefore recommends the use of misoprostol.

Misoprostol is as effective, or more effective when used vaginally, sublingually, or bucally for inducing early medical abortion.[314, 315, 316] As gestation advances beyond 49 days, however vaginal misoprostol is more effective than oral[306], and has less side effects than sublingual or buccal misoprostol[299]. Nevertheless, some women may prefer an oral route of administration.[317]

Given the relative effectiveness, buccal or sublingual administration of misoprostol in combination with mifepristone is an acceptable alternative to 63 days gestation and oral misoprostol may be used with mifepristone up to 49 days gestation. Women should be advised of the greater risk of side effects with the oral route.

Several studies have examined the time interval between mifepristone and misoprostol and these have been summarised in two reviews published in 2006 and 2010.[318, 319] These studies investigated simultaneous administration of mifepristone and misoprostol together with separate administration at intervals of 6–8 hours, 24, 36, 48 and 72 hours. Meta-analysis of five pooled RCTs showed no statistical difference in efficiency between shorter and longer dosing intervals. However, there was

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trend to lower success rates with intervals of less then 8 hours.

The rate of surgical intervention following medical abortion has been shown to be the same for women with a BMI less than 30 and those with a BMI greater than 30.[320]

The use of misoprostol for abortion constitutes an unlicensed indication and an unlicensed route of administration. However, the EEC Council Directive 65/65/EEC specifically permits doctors to use 'licensed medicines for indications or in doses or by routes of administration outside the recommendations given in the licence'.[321] Patients should be properly informed before a drug is prescribed for an unlicensed indication .[322] Drugs prescribed by doctors outside the license can be dispensed by pharmacists and administered by nurses and midwives. It is essential to have signed local protocols or individual prescriptions in respect of any substance prescribed outside the terms of its product licence. Provided a medical practitioner has prepared and signed a local protocol or individual prescription, midwives, health visitors or nurses may administer the drug.

The following regimens are licensed:

- Mifepristone 600 mg orally followed 36 – 48 hours later by gemeprost 1 mg vaginally for early medical abortion.
- Mifepristone 600 mg orally followed by misoprostol 400 µg orally for abortion up to 49 days gestation.
- Mifepristone 200 mg followed by gemeprost 1 mg vaginally for abortion up to 49 days gestation.

Place of misoprostol administration

RECOMMENDATION 86

✓ It is safe and acceptable for women who wish to leave the abortion unit following misoprostol administration to complete the abortion at home. There must be an adequate support strategy and robust follow up arrangements for these women.

Evidence supporting recommendations

In England, according to the DH's interpretation of the Abortion Act, both mifepristone and misoprostol must be given in premises licensed for abortion although there is no legal restriction on where the abortion actually takes place. Several studies have confirmed that home use of misoprostol is safe, acceptable and effective to 63 days gestation and in many other countries it is the standard of care.[323, 324, 325]

In a Swedish study of women undergoing early medical abortion at home up to 49 days gestation, the home regimen was safe and 98% of women said they would use this method if they had a further abortion.[326]

Data on home use of misoprostol in Great Britain are limited due to legal restrictions. In 2005 a multicentre questionnaire assessed the acceptability of home medical abortion to 553 women who had just undergone abortion in hospital. 366 women returned the questionnaire. Most felt that they would be able to manage the pain and bleeding associated with a medical abortion at home, but only 36% would choose home use of misoprostol if given the option.[327] This contrasts with the opinions of women in other studies who had actually experienced abortion at home and in which consistently over 90% would choose to have a further abortion outside a clinical setting. The DH looked at three

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types of community setting and conducted in depth interviews with women. Most were satisfied with the community rather than hospital setting but did not feel that community or home settings would be suitable for all women. Few women were concerned with the safety of abortion outside a hospital setting.[100]

In the only publication of home administration of misoprostol in Great Britain 49 women up to 56 days gestation following administration of mifepristone 200 mg were given 600 µg of misoprostol to administer sublingually at home.[328]48 women took the misoprostol and aborted at home, one woman elected to return to the hospital for misoprostol administration. 92% returned study questionnaires, 82% were very satisfied and 14% satisfied with undergoing treatment at home. None were dissatisfied.

In a recent publication, 249 women who completed their abortions at home in England and Wales were surveyed. 162 responded and of these 85% preferred being able to complete their abortion in a home rather than in a clinical setting.[329] 96% found the experience acceptable. 96% felt that they would have been able to obtain clinical help if required. Home completion was less acceptable in those who had a pregnancy greater than 49 days gestation and in Asian women.

In a recent Scottish study, 145 women elected to complete early medical abortion at home.[330] 69% returned a questionnaire recording their views of the experience. 81% of women found the bleeding, and 58% found the pain, to be 'as expected' or 'not as bad as expected'. 84% of women would recommend early discharge to complete medical abortion at home.

It is clear that women who are able to choose their method of abortion are more satisfied with the outcome, than women denied a choice. Neither early medical abortion nor home administration of misoprostol suits all women. However, published data do not suggest any clinical reason why women should remain in hospital during their abortion, and demonstrate that it is safe for women to administer misoprostol at home.

Medical abortion at gestation 9–13 weeks

RECOMMENDATION 87

A Medical abortion using the following regimen is a safe, effective and acceptable alternative to surgical abortion for women between 9 and 13 weeks of gestation:

- [*] mifepristone 200 mg orally followed 36–48 hours later by misoprostol 800 µg vaginally. A maximum of four further doses of misoprostol 400 µg may be administered at 3-hourly intervals, vaginally or orally (depending on amount of bleeding).

Evidence supporting recommendation 87

In a case series of 253 women at 63–83 days of gestation managed using a regimen of mifepristone 200 mg followed 36–48 hours later by a single dose of misoprostol 800 µg vaginally, the complete abortion rate was 95%, rising to 96% after repeat misoprostol administration in three women.[331]

In a randomised trial involving 368 women at 10–13 weeks of gestation participants were randomly

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allocated to surgical abortion by vacuum aspiration under general anaesthesia or medical abortion with mifepristone 200 mg followed 36–48 hours later by repeated doses of misoprostol[120]. Complete abortion rates were 95% in the medical group and 98% in the surgical group (difference not significant). Adverse events were higher in the medical group, but 70% indicated that they would opt for the same method in the future.

The same group subsequently reported a consecutive series of 483 women at 64–91 days gestation, managed using the same regimen.[332] The complete abortion rate was 95% and was gestation-related. In this series, up to five doses of misoprostol were permitted.

A small case series (25 women at 9–12 weeks of gestation), using mifepristone 200 mg followed by gemeprost 1 mg to a maximum of five doses reported a complete abortion rate of 96% and all women except one were managed as a day cases.[333]

In a randomised trial involving 340 women oral and sublingual misoprostol were equally effective, but there were more side effects with sublingual administration.[334]

Medical abortion at gestation 13–24 weeks

RECOMMENDATION 88

B For abortion from 13 to 24 weeks of gestation a dose of *200 mg of oral mifepristone is adequate followed by prostaglandin (orally, vaginally buccally or sublingually).

RECOMMENDATION 89

A The following regimen is optimal for medical abortion between 13 and 24 weeks.

- *Mifepristone 200 mg orally, followed 36–48 hours later by misoprostol 800 µg vaginally, then misoprostol 400 µg orally or vaginally, 3-hourly, to a maximum of four doses.

If abortion does not occur mifepristone can be repeated 3 hours after the last dose of misoprostol and 12 hours later misoprostol may be recommenced.

Evidence supporting recommendations 88 and 89

Second trimester medical abortion with mifepristone followed by a prostaglandin is effective and is associated with considerably shorter induction to abortion intervals than methods using prostaglandin alone.[335, 336] As discussed above, the dose of mifepristone recommended for first-trimester medical abortion is 200 mg[301]. Likewise evidence from a randomised trial resulted in a similar recommendation for the dose of mifepristone in second-trimester abortions.[337]

In a series of 500 cases of medical abortion at 13 to 24 weeks of gestation[98] only 9.4% of cases needed subsequent surgical evacuation following medical abortion. In a similar series of 956 women, the rate was 11.5%[98].

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Three studies published since 1999 on combined mifepristone and prostaglandin mid-trimester regimens have been identified.

Ngai et al. reported a randomised trial of 142 women at 14–20 weeks of gestation comparing vaginal (200 μg, 3-hourly) and oral (400 μg, 3-hourly) misoprostol after mifepristone 200 mg.[338] The efficacy of the two regimens was similar (complete abortion rate: 81% oral versus 75% vaginal). Although adverse effects were significantly higher in the oral group, this route was preferred by women.

A case series of 956 women at 12–24 weeks of gestation managed using a regimen comprising mifepristone 200 mg followed by gemeprost 1 mg vaginally six-hourly for 24 hours, followed by gemeprost 1 mg 3-hourly for 12 hours, if required reported complete abortion rates of 96.4% and 98.8% within 24 and 36 hours respectively.[339]

Bartley and Baird compared gemeprost and misoprostol in a randomised trial of 100 women at 12–20 weeks of gestation.[340] All subjects received mifepristone 200 mg; the gemeprost group then received 1 mg vaginally every 6 hours for 18 hours; the misoprostol group then received one dose of 800 μg vaginally followed by 400 μg orally 3-hourly for 12 hours. Complete abortion rates, induction to abortion intervals, surgical evacuation rates and adverse-effect profiles were similar in the two groups.

An abortion rate 97.9% was reported in 386 consecutive cases between 12 and 20 weeks of gestation.[341] If abortion had not occurred by 15 hours a second dose of 200 mg mifepristone was administered and the course of prostaglandins repeated starting 24 hours after the first dose. Over 99% of women aborted within 36 hours.

Brouns [342]conducted a small randomised study of abortion between 14 and 24 weeks using 200 mg mifepristone and either 200 or 400 μg doses of misoprostol. Both were effective but the induction delivery interval was longer with 200 μg doses.

RECOMMENDATION 90

B Surgical evacuation of the uterus is not required routinely following medical abortion between 13 and 24 weeks of gestation. It should only be undertaken if there is clinical evidence that the abortion is incomplete.

Pain relief for medical abortion

RECOMMENDATION 91

B All women should be routinely offered pain relief (e.g. NSAIDs) during medical abortion.

RECOMMENDATION 92

A Oral paracetamol has not been shown to reduce pain more than placebo during medical abortion and is not recommended.

RECOMMENDATION 93

B Some women may require additional narcotic analgesia, particularly after 13 weeks of gestation

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Evidence supporting recommendations 91–93

In routine clinical practice, analgesia is offered to women both during and after medical abortion. There is little research evidence to guide the choice of analgesic regimens. In a large case series of early medical abortion, data on analgesic use were available for over 3000 women[118]. Of these 37% required no analgesic, 58% received oral analgesia only (paracetamol 500 mg plus dihydrocodeine 10 mg) and 5% received parenteral opiate (morphine 10 mg).

A case series of 2747 women from the USA reported on analgesic use during home abortion; [324] 79% of the women used an oral narcotic analgesic on the day of the misoprostol administration. This level of use was higher than the 27% reported by the same investigators in a series of 2121 women undergoing supervised medical abortion.[343]

A placebo-controlled, randomised trial evaluated the efficacy of ibuprofen or acetaminophen (paracetamol) with codeine in the context of early medical abortion with methotrexate and misoprostol[288]. The agents were taken at the time of misoprostol administration, prior to the onset of pain. Severe pain was reported by almost one quarter of women. There were no significant differences in pain scores between treatment groups. The authors concluded that pain experienced in medical abortion causes significant distress and more research is needed to reduce it.

In a randomised study to examining the effect of paracetamol and codeine or diclofenac given with the first dose of misoprostol to women undergoing medical abortion between 13 and 22 weeks of gestation,[344] the NSAID did not interfere with the action of the misoprostol and women using diclofenac had a reduced need for opiate injections.

In a systematic review of pain control in medical abortion only 10 of 361 articles identified met the inclusion criteria.[345] The main positive finding was that ibuprofen given after the onset of pain reduced further analgesic use. Acetaminophen, acetaminophen plus codeine and alvarine (an antispasmodic) appeared to be ineffective. Despite its anti-prostaglandin effects ibupropfen did not interfere with the action of misoprostol. The authors concluded that further research is needed to determine the optimal analgesic regimen for medical abortion.

7.3 Histopathology

RECOMMENDATION 94

C Routine histopathological examination of tissue obtained at abortion procedures is not recommended.

Evidence supporting recommendation 94

Three prospective cohort studies have examined the usefulness of routine histopathological examination of tissue obtained at abortion.[346, 347, 348] Two of them concluded that there was no obvious benefit from routine histological examination. The third study involved review of histological findings from 1000 consecutive induced abortions at 7–13 weeks of gestation.[348] Pathological findings were reported in 5.6% of cases including one diagnosis of fetal polycystic kidney disease. The authors reported that this information enabled the woman to undergo prenatal diagnosis in future pregnancies and argued a case for routine histological examination of abortion material. However, none of the pathologies reported influenced the immediate care of the woman.

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The Royal College of Pathologists published guidance on histopathological examination of tissue obtained at abortion finds it to be of limited or no clinical value and advises that for 'social termination of pregnancy', specimens should not be sent to the laboratory if fetal parts are visible.[349]

Gestational trophoblastic neoplasia (GTN)

RECOMMENDATION 95

C Routine screening of women for gestational trophoblastic neoplasia (GTN) at the time of abortion is not recommended; providers should be aware of the signs and symptoms and, where appropriate, facilitate referral into a GTN monitoring programme.

Evidence supporting recommendation 95

The incidence of gestational trophoblastic neoplasia (GTN) in women seeking abortion has been estimated to be 1/600–1/2699, with variations dependent on gestational age.[350, 351, 352] The authors of a retrospective review of 51 cases of GTN diagnosed at or following an abortion advocated routine screening based on their finding that those without a diagnosis at the time of their procedure were significantly more likely to have serious complications of GTN and require surgical intervention and chemotherapy.[353]

It is unclear how screening would be achieved in practice and no studies of screening protocols have been undertaken. Gross and/or histological examination of aspirated tissue as a method of identifying GTN may also be unreliable, as early molar pregnancies do not always conform to the classic appearance.[354] At present, there is insufficient evidence to recommend a screening strategy for GTN in the abortion care setting.

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Chapter 8

Care after the abortion

8.1 Rhesus prophylaxis

RECOMMENDATION 96

B Anti-D IgG should be given, by injection into the deltoid muscle, to all nonsensitised RhD negative women within 72 hours following abortion, whether by surgical or medical methods.

Evidence supporting recommendation 96

The RCOG recommends that RhD negative women should be given anti-D IgG immunoprophylaxis following abortion.[355] The recommended dose is 250 iu before 20 weeks gestation and 500 iu thereafter. A 500iu dose gives protection for fetomaternal haemorrhage of up to 4 ml. For abortions undertaken after 20 weeks of gestation the size of fetomaternal haemorrhage should be assessed using either the traditional Kleihauer acid elution test, or the more accurate flow cytometry. If the test indicates a fetomaternal haemorrhage of greater than 4 ml, an additional 125 iu/ml of Anti-D should be administered.[355] Anti-D should be injected into the deltoid muscle, as injections into the gluteal region often reach only the subcutaneous tissues and absorption may be delayed**Error! Bookmark not defined.**.

In a Cochrane review of the evidence for rhesus prophylaxis after spontaneous first trimester abortion (miscarriage) the authors concluded that there is minimal evidence that administering Rh immune globulin for first trimester vaginal bleeding prevents maternal sensitization or development of haemolytic disease of the newborn.[356] It is not difficult to argue that women undergoing medical abortion before 9 weeks of gestation probably do not need Anti-D IgG. However a structured review appraised ten published studies relating to the necessity for anti-D prophylaxis for early first-trimester abortion[357] concluded that, although evidence to support the use of prophylaxis in the first trimester is sparse, there is theoretical evidence of its necessity. Since some studies indicate that fetomaternal haemorrhage in the first trimester is of sufficient volume potentially to cause immunosensitisation, the RCOG continues to recommend anti-D administration as routine. Other national guidelines make similar recommendations.[358] Further research is required.

It is fruitless to administer anti-D IgG to RhD negative women who, on antibody screening, are found to be sensitised already. It is wasteful of anti-D and unnecessarily exposes women to any risks inherent in human blood products. Inadvertent administration of prophylactic anti-D IgG to an already sensitised woman, however, would not of itself cause any harm to her.

8.2 Information after abortion

RECOMMENDATION 97

✓ On discharge, each woman should be given a letter that gives sufficient information about the procedure to allow another practitioner elsewhere to manage any complications.

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RECOMMENDATION 98

✓ Following abortion women must be provided with information about:

- symptoms they may experience, emphasising those which would necessitate an urgent medical consultation.
- symptoms suggestive of ongoing pregnancy.

RECOMMENDATION 99

✓ Independent providers of abortion services should have arrangements in place for referring women into NHS services for emergency assessment/admission.

RECOMMENDATION 100

✓ A 24-hour telephone helpline number should be available for women to use after abortion if they have any concerns.

8.3 Follow-up after abortion

RECOMMENDATION 101

B There is no medical need for routine follow-up after surgical abortion or after medical abortion if successful abortion has been confirmed at the time of the procedure.

Evidence supporting recommendation 101

Ongoing pregnancy after surgical abortion is rare (0.5 in 1000 cases of surgical abortion)[359] and, in contrast to medical abortion, surgeons have the opportunity to check for products of conception. Risk factors for ongoing pregnancy include the presence of a uterine anomaly, less experienced surgeon, and gestational age of less than six weeks.[360, 244, 254] Two systematic reviews concluded that routine follow up after surgical abortion cannot therefore be justified solely to exclude an ongoing pregnancy.[361, 362] Since many women fail to attend for follow-up, much outpatient time is wasted by insisting that all women be given a routine appointment. Rather every effort should be made to ensure that women leave the abortion facility with effective contraception and with information about where to go for further advice or treatment of symptoms, emotional problems or for contraception if it was declined at the time of the procedure.

RECOMMENDATION 102

✓ Women having a medical abortion in whom successful abortion has *not* been confirmed at the time of the procedure should be offered follow-up to exclude ongoing pregnancy.

Evidence supporting recommendation 102

Ongoing pregnancy after medical abortion, whilst still uncommon, occurs in 0.5%–1% of cases after mifepristone-misoprostol regimens.[363, 298, 364] Continuing pregnancies are at risk of teratogenicity.[365, 366, 367] Ongoing pregnancy is commoner in parous women, older women who have had previous abortions and at later gestational ages.[120, 147, 363, 368, 369, 370, 371, 372] Ongoing symptoms or signs of pregnancy, or very little/no vaginal bleeding after the procedure, should alert the clinician to the possibility of an ongoing pregnancy.

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For women in whom products of conception are not identified by an experienced health professional at the time of medical abortion, and for women who choose to go home immediately after misoprostol administration, a reliable method for excluding ongoing pregnancy is important. A systematic review of nine studies examined alternative modalities to ultrasound for detecting ongoing pregnancy including women's self-assessment, clinician assessment, serum hCG measurement and urine pregnancy testing.[361] A woman's self-assessment of ongoing pregnancy following medical abortion appears fairly accurate compared to ultrasound examination or clinician assessment[373, 374, 375, 376]but may be less accurate at gestations over 50 days when ongoing pregnancy is more likely.[375] Studies assessing the accuracy of serum hCG and urine pregnancy testing to detect failed medical abortion have been limited by the inherent high success rate of medical abortion and thus the small numbers of ongoing pregnancies.[377, 378, 379, 380, 381]

The largest study of alternative follow-up strategies after medical abortion (3054 women < 63 days gestation) evaluated different algorithms among women who underwent clinician assessment, self-assessment, low sensitivity urine pregnancy test (performed by a laboratory technician) and ultrasound.[382] None was sufficiently sensitive on its own to identify all ongoing pregnancies. However, a combination of either self-assessment or clinician assessment with a pregnancy test identified all 20 ongoing pregnancies. Use of either of these algorithms would have resulted in an additional 64 (34 %) of women who were not pregnant screening 'positive' and requiring ultrasound evaluation.

One small study of 139 women examined a strategy of telephone follow-up one week after misoprostol administration followed by a self-performed pregnancy test at 30 days. One third of women 'screened positive' and were required to attend a clinic to confirm complete abortion.[383]

Further research is required to determine if a combination of pregnancy testing at home and questions about pregnancy symptoms/signs could be used to screen for ongoing pregnancy after medical abortion and identify those women who require a clinic follow-up. Presently, in the absence of evidence to recommend a particular process for routine follow-up to exclude ongoing pregnancy after medical abortion (when expulsion of the products of conception has not been confirmed by an experienced health professional), services should agree a protocol for local use taking into consideration the length of time an individual women stays in the abortion service after misoprostol, her risk factors for failure and the distance she would have to travel to attend follow-up. It may be considered appropriate for the majority of women to be contacted by telephone to ask about post-procedure bleeding and symptoms together with a carefully performed urine pregnancy test or serum hCG determination.

RECOMMNDATION 103

✓ All women having an abortion should be able to choose to return for routine follow-up if they so wish.

RECOMMENDATION 104

✓ Referral should be available for the small number of women who require additional emotional support.

Evidence supporting recommendation 104

Most women who undergo induced abortion are certain of their decision[384, 385] and unlikely to experience serious regret. While there is good evidence that the great majority of adult women who

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have an abortion do not experience mental health problems[386, 387] a few will find it hard to come to terms with their decision and/or their experience of undergoing abortion and will require further emotional support or counselling. Services should be available for such women to be referred or to refer themselves.

RECOMMENDATION 105

✓ All women should be advised where to seek help if they have any concerns or if they need further contraceptive advice or provision.

RECOMMENDATION 106

C Ultrasound examination should not be used routinely to screen women for incomplete abortion.

RECOMMENDATION 107

C The decision to evacuate the uterus following incomplete abortion should be based on clinical signs and symptoms and not on ultrasound appearances.

Evidence for recommendations 106 and 107

While ultrasound examination will reliably exclude ongoing pregnancy, its routine use in women suspected of incomplete abortion can be misleading. Ultrasound appearances and measurements of endometrial thickness correlate poorly both with symptoms suggestive of retained products of conception and with later histological examination. Ultrasound appearances are not a clinically useful predictor for the subsequent need for surgical evacuation.[388, 389, 390, 391, 392] The decision to undertake uterine evacuation should be based upon the presence of signs and symptoms.

8.4 Contraception after abortion

RECOMMENDATION 108

B Abortion services should be able to provide all methods of contraception, including long acting methods, immediately after abortion.

RECOMMENDATION 109

B Women should be advised of the greater effectiveness of long-acting reversible methods of contraception (LARC).

RECOMMENDATION 110

B Before she is discharged future contraception should have been discussed with each woman and contraceptive supplies should have been offered.

Evidence supporting recommendations 108–110

Ovulation occurs within a month of first-trimester abortion in over 90% of women.[393] Initiation of contraception immediately following induced abortion has advantages. The woman is known not to be pregnant, her motivation to use effective contraception may be high and she is already accessing

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health care. There is evidence among contraceptive users in general that immediate initiation of contraception, avoiding delays imposed by the need for return visits to a medical facility, has short-term positive effects on contraceptive use.[394] Delaying insertion of an intrauterine device (IUD) after abortion has been shown to be a barrier to uptake.[395]

In a randomised controlled trial undertaken in Scotland, women receiving individualised, tailored contraceptive advice and immediate provision of their chosen method after abortion were significantly more likely to leave the abortion service with a method of contraception (particularly contraceptive implants) than women offered a more limited choice of methods.[396] In a US trial availability of immediate IUD insertion in the abortion facility resulted in an increase in the percentage of women leaving the facility with an IUD.[397]

Long-acting reversible methods of contraception rely less (injectables) or not at all (intrauterine methods and implants) on compliance for their effectiveness compared with oral contraceptives or barrier methods. NICE recommends that increased uptake of LARC should reduce unintended pregnancy rates.[398] Increased IUD use facilitated by immediate insertion should theoretically prevent significant numbers of repeat abortions.[399] In a US study women who chose immediate insertion of an IUD after abortion had a lower rate of subsequent repeat abortions than women who chose other methods.[400]

RECOMMENDATION 111

B The chosen method of contraception should be initiated immediately.

RECOMMENDATION 112

B Intrauterine contraceptives can be inserted immediately following medical and surgical abortion at all gestations as long as it is reasonably certain that the woman is not still pregnant.

RECOMMENDATION 113

✓ Women who choose not to start a method immediately should be given information about local contraceptive providers in addition to their general practitioner.

RECOMMENDATION 114

✓ Abortion services should have an agreed pathway of care to local community sexual health services.

Evidence supporting recommendations 111–114

The World Health Organization's Medical Eligibility Criteria and Selected Practice Recommendations for Contraceptive Use (WHOMEC, WHOSPR) provide evidence-based recommendations on eligibility for methods and on maximising effective contraceptive use.[401, 402] Both have been adapted for use in Great Britain.[403, 404] The WHOMEC recommends that the benefits of combined hormonal contraceptives started immediately following first- or second-trimester abortion outweigh any risks. Similarly, the WHOSPR recommends that progestogen-only contraceptive pills, implants and injectables can all be started immediately following abortion. Ideally, these methods should be started on the day of the abortion (the day of mifepristone intake for medical abortion), when contraceptive protection is immediate. If started after this time,

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additional barrier contraception is required for 7 days (combined hormonal contraception) or for 2 days (progestogen-only methods).

A systematic review of the literature concluded that the provision of combined oral contraceptives immediately following surgical or medical abortion was safe.[405] Use of the combined oral contraceptive pill does not affect either duration or amount of vaginal bleeding or the complete abortion rate. While there is no direct evidence, it seems likely that administration of combined hormonal contraceptives by other routes (transdermal, vaginal) will have similar effects.

There are few data specifically relating to IUD or LNG-IUS insertion following medical abortion. The WHOMEC in 2009 do not distinguish between medical and surgical abortion when recommending that IUD and LNG-IUS can be inserted without restriction following first trimester abortion and that the benefits outweigh the risks of immediate insertion after second trimester abortion. We suggest that an IUD/IUS may be inserted immediately (within 48 hours) following first or second trimester medical abortion. Otherwise, insertion should be delayed until 4 weeks following medical abortion (as for postpartum insertions). The Faculty of Sexual and Reproductive Healthcare recognises that waiting for 4 weeks may put some women at risk of pregnancy and suggests that after counselling an IUD/IUS can be inserted at any time after medical abortion by an experienced clinician if it is reasonably certain that the pregnancy is not ongoing.[406]

If insertion of intrauterine contraception is to be delayed, women leaving the abortion unit and choosing an IUD or IUS for later insertion should be provided with an effective contraception to use in the interim.

A systematic review including nine randomised trials and a total of 4476 woman years of data suggested that the insertion of a copper-bearing intrauterine contraceptive device at the time of surgical abortion was safe and practical.[407] No difference was found in readmission rates for pelvic infection following abortion in 229 women having an IUD inserted at the time of first trimester abortion, compared with 594 women not having an IUD inserted.[56,407] No prophylactic antibiotics were used and IUD continuation rates at 1 year were 72.8%. Expulsion rates were higher for insertions following second trimester termination than following first trimester termination. However in a modelling exercise in which expulsion rates as high as 30% for immediate insertion after second trimester abortion were assumed, immediate insertion of an IUD resulted in a theoretical reduction in repeat abortions.[399] There is insufficient evidence available to compare the safety and efficacy of IUDs inserted immediately after abortion versus delayed insertion. However, the WHOMEC recommends the benefits of IUD insertion immediately following first trimester termination (category 1- unrestricted use) or second trimester termination (category 2 - benefits generally outweigh any risks).[401] UKMEC recommend that an IUD can be inserted immediately following surgical abortion or after the second part of medical abortion up to 24 weeks of gestation.[53, 403]

There are fewer data on the use of levonorgestrel releasing intrauterine system (LNG-IUS) after surgical abortion. The Cochrane review cites a small randomised trial investigated bleeding patterns associated with an IUD or LNG-IUS inserted following either induced abortion or menstruation.[408] Women having an LNG-IUS inserted following surgical abortion described fewer bleeding problems compared with women having one inserted post-menstrually. This may be due to an enhanced effect of levonorgestrel on the endometrium following removal of most of the superficial endometrium during the surgical procedure. Other studies have demonstrated the safety and efficacy of the LNG-IUS inserted immediately after surgical abortion.[409, 410, 411] The UK Medical Eligibility Criteria (UKMEC) recommend that an IUS can be inserted immediately following surgical abortion or after the second part of medical abortion up to 24 weeks of gestation.[403]

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Sterilisation

RECOMMENDATION 115

B Sterilisation can be safely performed at the time of induced abortion although may be more likely to be associated with regret.

Evidence supporting recommendation 115

The lifetime failure rate for sterilisation is approximately 1 in 200.[412] The RCOG evidence-based guideline on male and female sterilisation highlighted that there is potentially a higher failure rate associated with sterilisation at the time of abortion.[412] The Medico-Legal Committee of the RCOG has commented: 'In view of the increased failure rate of sterilisation procedures on those currently pregnant, it is questionable whether such operations should be carried out at all'.[413]

Two cohort studies have shown that the immediate and short-term complications of sterilisation performed at the time of abortion are similar to the total morbidity associated with the two procedures when performed separately.[414, 415] Earlier reports, based on statutory notifications, overestimated complications, owing to most sterilisations being performed by laparotomy, as opposed to the laparoscopic techniques now favoured. There are no data on hysteroscopic sterilisation or sterilisation by mini-laparotomy, at the time of abortion.

Apart from the potential increased risk of failure, the possibility of feelings of regret has been voiced as a reason for performing sterilisation as an interval procedure. Regret associated with sterilisation may be hard to predict.[416] In one randomised trial, where women had requested sterilisation at the time of abortion, they were randomised to a combination or interval procedure.[414] Of women allocated to the 'interval' group, 33% failed to attend for sterilisation, suggesting a change of mind once they had been able to distance themselves from the abortion itself. This study emphasises the need for careful counselling relating to sterilisation in association with abortion.

The WHOMEC (2009) recommends that sterilisation can be performed immediately after abortion unless the abortion is complicated by sepsis, fever, severe haemorrhage or genital tract trauma.[401]

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Chapter 9

Standards for audit and service accreditation

Women seeking induced abortion need non-directive information and support to enable them to make the most appropriate decisions. All women should be offered comprehensive sexual health care, including full contraceptive provision, and an STIs risk assessment. Referral for induced abortion is also an opportunity to identify vulnerable women, particularly those in abusive situations or with child protections needs, and enable them to disclose and receive support from, or referral to, trained advocates.

The DH Mandated Service Specification for abortion care and or any local commissioning contracts should be taken into account when reviewing standards as part of clinical audit and review of commissioning arrangements.[58]

Abortion services must conduct regular audit of the care they provide. The recommendations within this guideline can serve as criteria for audit. Some suggestions for audit of abortion services have already been provided within the RCOG Standards in Gynaecology.[77]. Having reviewed and updated this guideline the members of the CSG discussed the recommendations with a view to suggesting a list of auditable standards. While most of the recommendations could provide the basis for audit, the GDG lists below those which they felt were the most important. The specific recommendations being audited are shown in brackets within the list.

The RCOG publication *Understanding Audit*[417] provides useful advice on undertaking high quality audit. In brief, services need to collect data to assess their performance against a specified standard, feedback the findings to service staff (and other stakeholders), agree and then implement changes required to improve the quality of care and repeat the data collection to determine whether care has been improved. For most of the auditable standards listed below data can be simply collected by case note review or by self-completed questionnaires issued to patients or staff.

All clinical staff should attend regular, minuted clinical governance meetings. Standard agenda items should include audit, critical incidents, complaints and service development.

9.1 Pathways of care

A number of recommendations in the guideline highlight the need for services to have clear pathways of care for the management/referral of women whose needs cannot be met by their own service including pathways to:

- Tertiary care for women with significant medical conditions **(16)**
- Antenatal care for women deciding to continue their pregnancy **(17)**
- Care (including contraception & sexual healthcare) for women with non-viable pregnancy **(18)**
- Specialist services for vulnerable women (e.g. child protection needs, domestic/sexual abuse) **(19)**

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- The appropriate method of inducing abortion if that method is not available in house (e.g. D&E) or if the service is not provided for certain gestations **(23)**
- Additional emotional support after the abortion for women who need it **(104)**

Services should undertake audit to determine whether their staff are familiar with all these pathways of care and whether those pathways are being used appropriately and effectively.

9.2 Information provision

A number of recommendations highlight the need for women at various stages during their journey through the abortion service to receive information about a range of topics including:

- Routes of access to abortion (including self-referral) **(1)**
- Pregnancy options **(11, 14)**
- Abortion procedures **(11, 48, 77)**
- Complications, risks, side effects and sequelae **(13, 31–43)**
- Prevention of STIs **(62)**
- Care after abortion (including contraceptive provision) **(98, 105, 109, 113)**

Services should undertake regular audit to determine whether this information (including information in an appropriate format which women can take home) is being offered to all women undergoing abortion *and* that the information is understood.

9.3 Patient choice

A number of recommendations in the guideline highlight the need for patient choice in the abortion process. Regular audit should be undertaken to determine whether women are being offered (where appropriate) a choice of:

- Abortion method **(23)**
- Completion of medical abortion (before 9 weeks of gestation) at home or in the clinic **(28, 86)**
- Routine follow-up **(103)**
- The full range of contraceptive methods **(110)**

9.4 Pre-abortion assessment

Regular audit should be undertaken to determine the percentage of women undergoing:

- Determination of rhesus status **(50)**
- Rhesus prophylaxis **(96)**
- VTE risk assessment **(52)**
- Chlamydia screening **(60)**
- STI risk assessment **(60)**
- The process and outcome of telephone assessment (if being used) **(21)**

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9.5 Abortion procedures

Services should regularly audit their success in meeting the standards relating to:

- Minimising delay in providing abortion **(24)**
- The prevention of infective complications **(58)**
- Cervical preparation **(73)**
- Provision of alternatives to general anaesthesia for surgical abortion **(78)**

9.6 Care after the abortion

- The robustness of follow-up arrangements (including telephone assessment) for women choosing early discharge after medical abortion should be audited **(28, 86)**
- Services should regularly audit the number of staff competent to provide all methods of contraception, including contraceptive implants and intrauterine methods, and the availability of such staff during the working week **(108)**
- Services should regularly audit the percentage of women with whom contraception after abortion has been discussed, offered and provided. **(110, 111)** and the percentage leaving the abortion service with one of the more effective methods of contraception **(109)**

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