



Royal College of
Obstetricians &
Gynaecologists

Surgical Management of Miscarriage and Removal of Persistent Placental or Fetal Remains

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Surgical Management of Miscarriage and Removal of Persistent Placental or Fetal Remains

This is the second edition of this guidance, which was published in 2010 under the title *Surgical Evacuation of the Uterus for Early Pregnancy Loss*.

This paper provides advice for health professionals obtaining consent from women undergoing surgical management of miscarriage with electric or manual vacuum aspiration. It is also intended to be appropriate when surgical intervention is indicated for an incomplete termination of pregnancy, incomplete or delayed miscarriage, or partially retained placenta after delivery. After careful discussion with the woman, the consent form should be edited under the heading 'Name of proposed procedure or course of treatment' to accurately describe the exact procedure to be performed. The paper follows the structure of Consent Form 1 from the Department of Health, England¹/Welsh Assembly Government²/Department of Health, Social Services and Public Safety, Northern Ireland.³ It should be used as part of the consent process outlined in the Royal College of Obstetricians and Gynaecologists (RCOG) website at rcog.org.uk/consent, and in conjunction with the RCOG Clinical Governance Advice No. 6 *Obtaining Valid Consent*⁴ and Clinical Governance Advice No. 7 *Presenting Information on Risk*.⁵ Please also refer to the National Institute for Health and Care Excellence (NICE) clinical guideline 154 *Ectopic pregnancy and miscarriage: diagnosis and initial management*.⁶

The aim of this advice is to ensure that all women are given consistent and adequate information for consent. It is intended for use together with dedicated patient information. At discharge, women should be provided with clear direction to enable them to obtain help if there are unforeseen problems after discharge.

Health professionals obtaining consent should be prepared to discuss with the women any of the points listed on the following pages. Risks may be quantified using the descriptors below.

Table 1. Presenting information on risk

Term	Equivalent numerical ratio	Colloquial equivalent
Very common	1/1 to 1/10	A person in family
Common	1/10 to 1/100	A person in street
Uncommon	1/100 to 1/1000	A person in village
Rare	1/1000 to 1/10 000	A person in small town
Very rare	Less than 1/10 000	A person in large town

The descriptors are based on the RCOG Clinical Governance Advice No. 7 *Presenting Information on Risk*,⁵ and are used throughout this document.

Terms used

Some of the terms used in this consent document may be upsetting for women, and it is important to assess their reaction to the language used to ensure that the most acceptable words are used for the individual bearing in mind that this may be a very difficult time emotionally. Pregnancy tissue and pregnancy remains are all appropriate words to use, although each of these terms may be acceptable or not, for some women.

CONSENT FORM

1. Name of proposed procedure or course of treatment

Surgical removal of retained pregnancy tissue under general or local anaesthetic.

2. Proposed procedure

Describe the nature of the procedure taking into account the emotional impact of losing a baby: removal of persistent placental or fetal tissue from the uterus, usually using suction. Explain the procedure as described in the RCOG patient information leaflets *Early miscarriage*⁷ and *Recovering from surgical management of a miscarriage*,⁸ or locally produced information materials. Where clinically appropriate, offer women undergoing early pregnancy loss (miscarriage) a choice of manual vacuum aspiration under local anaesthetic in an outpatient or clinic setting, or surgical management in an operating theatre under general anaesthetic.

If an intrauterine pregnancy has not been confirmed on transvaginal ultrasound scanning prior to surgery and other procedures are anticipated, such as diagnostic laparoscopy to exclude ectopic pregnancy, these must be discussed and separate consent obtained.

If the woman wishes to avoid a pregnancy after the procedure, sensitively counsel the woman regarding contraceptive options. Surgical management of miscarriage can be an opportunity for the insertion of intrauterine contraception to avoid the woman having the insertion at a later date. Additional consent should be obtained if the woman wishes to have intrauterine contraception inserted at the time of the surgical procedure.

3. Intended benefits

The aim of the procedure is to treat an incomplete or delayed miscarriage, an incomplete termination of pregnancy or surgical management of miscarriage, or partially retained placenta after delivery. NICE recommend expectant management for 7–14 days as first-line treatment to be offered to women with a confirmed diagnosis of miscarriage.⁶ Surgical or medical management can be offered when expectant treatment is not acceptable to the woman or has failed. Surgical management should be first-line treatment if there is a medical indication for surgery, such as sepsis, heavy bleeding or haemodynamic instability, or there is a suspicion of gestational trophoblastic disease. The Miscarriage Association and the Association of Early Pregnancy Units support discussing with women all options that are clinically appropriate and locally available.

4. Serious and frequently occurring risks

The overall (significant) complication rate for surgical evacuation of the uterus is approximately 6%.^{6,9,10} It is important for health professionals to differentiate between serious and frequently occurring risks when discussing the procedure with the patient, and these are the two categories presented on the consent form in order to facilitate this discussion.

Women who are obese, who have significant pre-existing medical conditions or who have had previous surgery must be made aware that the quoted risks for serious or frequent complications may be increased.

4.1 Frequent risks (very common or common)

Bleeding

Bleeding that lasts up to 2 weeks is common. Heavy bleeding necessitating blood transfusion is uncommon; estimated range from 0 to 3 in 1000 cases (uncommon).^{11,12}

Bleeding at the time of the procedure or shortly after can be caused by uterine atony, coagulopathy or abnormal placentation, and by complications such as uterine perforation, cervical laceration and retained pregnancy tissue. Unexpected heavy bleeding at the time of surgery in a woman with a history of previous caesarean section should alert the surgeon to the possibility of a previously undiagnosed caesarean scar pregnancy. Many early cases of gestational trophoblastic disease are not detected by transvaginal ultrasound scanning. If there is unexpected heavy bleeding at the time of the procedure the surgeon should consider this.

Persistent (for more than 14 days post surgery) or very heavy bleeding should be investigated for a possible incomplete procedure or retained placental and/or fetal tissue.

Infection

Randomised controlled trials (RCTs)^{9,13} have reported localised pelvic infection in up to 40 in 1000 women (common).

Retained placental or fetal tissue

The incidence of retained placental or fetal tissue is up to 40 in 1000 women (common).^{9,13,14}

Studies have shown that the incidence of repeat surgery following surgical evacuation ranged from 3 in 1000 (uncommon) to 18 in 1000 (common).^{14,15}

An RCT¹⁶ found that transvaginal ultrasonography carried out in theatre once surgery was thought to be complete reduced the incidence of an incomplete procedure. Limitations on the generalisability of this study include the requirement for an appropriately maintained, high-resolution ultrasound scanner, ideally with a transvaginal probe, and the technical expertise to perform and interpret the scan.

Intrauterine adhesions

A systematic review¹⁷ of intrauterine adhesions after miscarriage included ten studies and reported an incidence ranging from 3–38%. This gave an overall pooled incidence following any type of management (spontaneous or expectant, medical and surgical evacuation of the uterus) for early pregnancy loss to be 19% (190 in 1000; common) of women. For surgical evacuation, the risk was 16.3–18.5%.

However, in over one-half of these women, the severity and extent of these adhesions were mild (mild, 58.1%; moderate, 28.2%; and severe, 13.7%) and the adhesions were of unknown clinical significance. No significant differences were shown in long-term fertility outcomes with medical, surgical or expectant management although the numbers of studies and of included women were limited.

Two reviews^{17,18} have shown that the frequency and severity of intrauterine adhesions are proportional to the number of evacuation procedures performed.

4.2 Serious risks

Perforation

A multicentre observational study¹⁹ estimated the rate of confirmed uterine perforation to be 1 in 1000 (uncommon).

However, an observational study¹⁶ showed that a number of perforations may not be diagnosed and the incidence may be significantly higher: up to 15 in 1000 women (uncommon).

Most perforations are small, not clinically significant and effectively managed conservatively.

Cervical priming is used with the aim to reduce the possibility of injury to the uterus and cervix, and to improve the surgical ease of the procedure. However, a Cochrane review²⁰ concluded that although the use of cervical primers reduced the need for mechanical dilation and reduced the operating time, none of the included studies reported data on the review's primary outcome: cervical or uterine injury. The use of cervical primers was associated with increased abdominal pain.

Cervical trauma

The risk of significant trauma to the cervix may be reduced by cervical preparation. This should be considered for nulliparous women who have not had any significant vaginal bleeding prior to the procedure. The risk of significant trauma to the cervix is extremely low (much less than 1 in 1000 women; uncommon).¹²

A systematic review suggested that surgical management of miscarriage and termination of pregnancy has been associated with an increased risk of preterm birth in subsequent pregnancies (odds ratio 1.29 for preterm birth at less than 37 weeks of gestation). This risk increases with repeated procedures, implying a possible causal association. Lack of data meant that the effect of cervical priming in modifying the risk of preterm birth could not be assessed.²¹ Moreover, the review did not find adequate data to be able to separate miscarriages from terminations.

5. Any extra procedures that may become necessary during the procedure

Laparoscopy or laparotomy to diagnose and/or repair organ injury or uterine perforation.

Management of uterine perforation will depend on the instruments used. If a perforation occurs when using a dilator or curette then conservative management with antibiotics, observation and explanation to the patient may be appropriate. If larger diameter instruments or a suction curette is used, or if there is significant revealed bleeding from a uterine tear, then laparoscopy should be performed.²²

6. What the procedure is likely to involve, and the benefits and risks of any available alternative treatments, including no treatment

If tissue is sent for histological examination, the reasons (to exclude molar or ectopic pregnancy) and the local system for following up these results should be explained. Many women believe this analysis will provide a reason for their miscarriage and it should be clarified that this is unlikely to be the case.

The alternative treatment options are:

- medical management – with prostaglandin analogues
- expectant management.

Expectant, medical and surgical treatment of early pregnancy loss have similar rates of complications, such as duration and severity of pain, incidence of pelvic infection and the level of anxiety experienced.^{6,23} A recent Cochrane review²⁴ found no difference in the success between misoprostol and waiting for spontaneous miscarriage (expectant care), or between misoprostol and surgery. The overall success rate of treatment (misoprostol and surgery) was over 80% and sometimes as high as 99%. One study identified no difference in

subsequent fertility with any management method (expectant, medical or surgical). Vaginal misoprostol was compared with oral misoprostol in another study which found no difference in success, but there was an increase in the incidence of diarrhoea with oral misoprostol.

There is a paucity of large, multicentre RCTs in the management of early pregnancy loss. The current reviews are largely weighted by the results of the miscarriage treatment (MIST) trial.²⁵ A significant number of women declined to be randomised in this trial, which introduced bias and emphasised the importance of patient choice. A meta-analysis²³ of seven studies showed no statistically significant difference in the incidence of pelvic infection for active management (medical or surgical) compared with expectant management of miscarriage (2.9% versus 2.5%, respectively). Studies^{6,23,26} have shown no statistically significant difference in the duration of pain following the active or expectant management of miscarriage. The overall satisfaction of women with the care they received has been shown to be similar for all management options.^{23,27} Expectant treatment of miscarriage has been associated with fewer gastrointestinal adverse effects (13.8% versus 27.8%), but a longer duration of bleeding (ranging from 4–17 days versus 2–15 days), and a significantly greater chance of needing a blood transfusion (1.6% versus 0.4%) or unplanned intervention (35.4% versus 17.7%).^{6,23,25} Expectant management has been estimated to be the most cost-effective treatment option for early pregnancy loss.^{23,28}

Overall, patient choice should drive decisions after thorough discussion of the alternatives. This is likely to increase satisfaction with care.

7. Sensitive disposal of fetal tissue

The Human Tissue Authority²⁹ specifies that women should be made aware that information on disposal options is available if they wish to have access to it. Healthcare professionals discussing consent with women undergoing surgical management of miscarriage are expected to provide information about disposal choices and, where the woman wishes to discuss these, obtain her wishes. The Association of Early Pregnancy Units and the Miscarriage Association believe that all women undergoing surgical management of miscarriage should give informed consent for what happens to their pregnancy remains. The Death before Birth project (deathbeforebirthproject.org) recommends a standardised approach to provision of information about options for disposal of pregnancy remains. This could be achieved with specific patient information leaflets on disposal. The Miscarriage Association⁷ supports the cremation or burial of all pregnancy remains below 24 weeks of gestation as standard practice across the NHS. In Scotland, the minimum standard for disposal of pregnancy losses up to 23⁺⁶ weeks of gestation is shared cremation.³⁰

8. Information and support for women and their families

Useful information for women and their friends or families can be accessed through the following websites and organisations:

- RCOG Patient information leaflets [<https://www.rcog.org.uk/en/patients/patient-leaflets/>]
- The Miscarriage Association [<https://www.miscarriageassociation.org.uk>]
- The Ectopic Pregnancy Trust [<http://www.ectopic.org.uk>]
- Antenatal Results and Choices (ARC) [<http://www.arc-uk.org>]

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Appendix I: Consent to treatment form

Patient identifier/label

Name of proposed procedure or course of treatment (include brief explanation if medical term not clear)

Surgical operation to remove pregnancy remains from within the uterus (womb).

Statement of health professional (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy, and preferably capable of performing procedure themselves)

I have explained the procedure to the patient with other possible alternatives. In particular, I have explained:

The cervix (neck of the womb) may need to be dilated (opened) and the pregnancy remains removed. Tablets or pessaries may be given first to make the cervix softer and the operation safer.

The intended benefits

To remove any pregnancy remains from within the womb.

Frequent risks

- Bleeding that lasts for up to 2 weeks is very common but heavy bleeding is uncommon (1–3 in 1000 women).
- Need for repeat procedure if all the pregnancy remains are not removed, up to 40 in 1000 women (common).
- Pelvic infection, 40 in 1000 women (common).
- Development of intrauterine adhesions, 190 in 1000 (common).

Serious risks

- Perforation of the womb, up to 1 in 1000 women (uncommon).
- Significant tear of the neck of the womb, less than 0.1 in 1000 women (rare).

Any extra procedures which may become necessary during the procedure

- Laparoscopy (keyhole surgery) to investigate for any suspected injury, if there is perforation of the womb.
- Laparotomy (open surgery) to repair any injury.
- Other procedure (please specify)

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

The following RCOG patient information leaflet has been provided *Early Miscarriage* (<https://www.rcog.org.uk/en/patients/patient-leaflets/early-miscarriage/>).

This procedure will involve

- General and/or regional anaesthesia Local anaesthesia Sedation

Signed Date

Name (print) Position

Contact details *(if patient wishes to discuss options later)*

.....

Statement of interpreter *(where appropriate)*

I have interpreted the information above to the patient to the best of my ability and in a way in which I believe they can understand.

Signed Date

Name *(print)*

Top copy accepted by patient Yes / No *(please circle as appropriate)*

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The final version is the responsibility of the Joint Standing Committee for Patient Safety of the RCOG.

The guideline will be considered for update 3 years after publication, with an intermediate assessment of the need to update 2 years after publication.

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