Heavy menstrual bleeding: assessment and management

NICE guideline

Draft for consultation, August 2017

This guideline covers assessing and treating heavy menstrual bleeding. It aims to help healthcare professionals offer the right treatments to women with heavy periods (menorrhagia) that affect their quality of life, taking into account the woman's individual preferences.

Who is it for?

- Healthcare professionals
- Commissioners and providers of heavy menstrual bleeding services
- Women with heavy menstrual bleeding, their families and carers

We have updated or added new recommendations on the diagnosis and treatment of women with heavy menstrual bleeding.

You are invited to comment on the new and updated recommendations in this guideline. These are marked as **[2017]** if the evidence has been reviewed.

You are also invited to comment on recommendations that NICE proposes to delete from the 2017 guideline.

We have not updated recommendations shaded in grey, and cannot accept comments on them. In some cases, we have made minor wording changes for clarification.

See Update information for a full explanation of what is being updated.

This version of the guideline contains:

- the draft recommendations

- rationale and impact sections that explain why the committee made the 2017 recommendations and how they might affect practice
- the guideline context
- recommendations for research.

Information about how the guideline was developed is on the guideline's page on the NICE website. This includes the evidence reviews, the scope, and details of the committee and any declarations of interest.

Full supporting information and evidence for the 2017 recommendations is contained in evidence reviews A and B. Evidence for the 2007 recommendations is in the full version of the 2007 guideline, and evidence for the 2016 recommendations is contained in the 2016 addendum.

Contents

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

1.1 Impact of heavy menstrual bleeding (HMB) on women

1.1.1 Recognise that heavy menstrual bleeding (HMB) has a major impact on a woman's quality of life, and ensure that any intervention aims to improve this rather than focusing on blood loss. **[2007]**

1.2 History, physical examination and laboratory tests

History

1.2.1 Take a history from the woman that covers:

- the nature of the bleeding
- related symptoms that might suggest intracavitary abnormality, histological abnormality or adenomyosis (see recommendation 1.2.4)
- impact on her quality of life
- other factors that may affect treatment options (such as comorbidities). **[2007, amended 2017]**

1.2.2 Take into account the range and natural variability in menstrual cycles and blood loss when diagnosing HMB, and discuss this variation with the woman. If the woman feels that she does not fall within the normal ranges, discuss care options. **[2007]**

1.2.3 If the woman's history suggests HMB without intracavitary abnormality, histological abnormality or adenomyosis, consider pharmacological

treatment without carrying out a physical examination (unless the treatment chosen is levonorgestrel-releasing intrauterine system (LNG IUS)). **[2007, amended 2017]**

1.2.4 If the woman's history suggests HMB with intracavitary abnormality, histological abnormality or adenomyosis, with symptoms such as intermenstrual bleeding, pelvic pain and/or pressure symptoms, offer a physical examination and/or other investigations (see section 1.3). **[2007, amended 2017]**

Physical examination

1.2.5 Carry out a physical examination before all:

- LNG-IUS fittings
- investigations for intracavitary abnormalities
- investigations for histological abnormalities. **[2007, amended 2017]**

Laboratory tests

1.2.6 Carry out a full blood count test for all women with HMB, in parallel with any HMB treatment offered. **[2007]**

1.2.7 Testing for coagulation disorders (for example, von Willebrand's disease) should be considered for women who:

- have had HMB since their periods started **and**
- have a personal or family history suggesting a coagulation disorder. **[2007]**

1.2.8 Do not routinely carry out a serum ferritin test for women with HMB. **[2007, amended 2017]**

1.2.9 Do not carry out female hormone testing for women with HMB. **[2007, amended 2017]**

1.2.10 Do not carry out thyroid testing for women with HMB unless other signs and symptoms of thyroid disease are present. **[2007, amended 2017]**

1.3 Investigations for women with HMB

Before starting investigations for HMB

1.3.1 If cancer is suspected, see the NICE guideline on suspected cancer: recognition and referral. **[2007]**

1.3.2 Consider starting pharmacological treatment for HMB without investigating the cause if the woman's history and/or examination suggests a low risk of intracavitary or histological abnormality or adenomyosis. **[2017]**

Hysteroscopy for women with suspected polyps, submucosal fibroids or endometrial pathology

1.3.3 Offer outpatient hysteroscopy for women with HMB where history suggests polyps, submucosal fibroids or endometrial pathology because:

- they have symptoms such as intermenstrual bleeding **or**
- they have risk factors for endometrial pathology (see recommendation 1.3.8). **[2017]**

1.3.4 Ensure that outpatient hysteroscopy services are organised and the procedure is performed according to best practice, including:

- advising women to take oral analgesia before the procedure
- vaginoscopy as the standard technique, using miniature hysteroscopes (smaller than 3.5 mm)
- service organisation that enables ‘see-and-treat’ in a single setting if feasible. **[2017]**

1.3.5 Explain to women with HMB who are offered outpatient hysteroscopy what the procedure involves and discuss the possible alternatives. **[2017]**

1.3.6 If a woman declines outpatient hysteroscopy, consider hysteroscopy under anaesthesia. **[2017]**

Endometrial biopsy at the time of hysteroscopy

1.3.7 Do not offer ‘blind’ endometrial biopsy to women with HMB. **[2017]**

1.3.8 Consider endometrial biopsy at the time of hysteroscopy for women who are at high risk of endometrial hyperplasia, such as:

- women who are obese
- women with persistent intermenstrual bleeding, or irregular or infrequent bleeding (for example, women with polycystic ovary syndrome)
- women taking tamoxifen
- women for whom treatment for HMB has been unsuccessful. **[2007, amended 2017]**

Ultrasound

Women with possible larger fibroids

1.3.9 Offer 2-dimensional pelvic ultrasound for women with HMB if any of the following apply:

- their uterus is palpable abdominally
- history or examination suggests a pelvic mass
- examination is inconclusive or difficult, for example in women who are obese. **[2017]**

Women who decline hysteroscopy

1.3.10 For women who decline hysteroscopy, consider 2-dimensional pelvic ultrasound, explaining the limitations of this technique for detecting intracavitary causes of HMB. **[2017]**

Women with possible adenomyosis

1.3.11 Offer transvaginal ultrasound (in preference to transabdominal ultrasound or MRI) for women with HMB who have:

- significant dysmenorrhoea (period pain) **or**
- a bulky, tender uterus on examination that suggests adenomyosis. **[2017]**

1.3.12 If a woman declines transvaginal ultrasound or it is not suitable for her, consider transabdominal ultrasound or MRI, explaining the limitations of these techniques. **[2017]**

1.3.13 Be aware that pain associated with HMB may be caused by endometriosis rather than adenomyosis (NICE is developing a guideline on endometriosis; publication expected September 2017). **[2017]**

> To find out why the committee made the 2017 recommendations on investigations for women with HMB and how they might affect practice see rationale and impact.

Other diagnostic tools

1.3.14 Do not use saline infusion sonography as a first-line diagnostic tool for HMB. **[2007, amended 2017]**

1.3.15 Do not use MRI as a first-line diagnostic tool for HMB. **[2007, amended 2017]**

1.3.16 Do not use dilatation and curettage alone as a diagnostic tool for HMB. **[2007, amended 2017]**

1.4 Information for women about HMB and treatments

1.4.1 Provide information about HMB and its management to women. Follow the principles in the NICE guideline on patient experience in adult NHS services in relation to communication, information and shared decision-making. **[2017]**

1.4.2 Provide information about all possible treatment options (see section 1.5) and discuss these with the woman. Discussions should cover:

- the benefits and risks of the various options
- suitable treatments if she is trying to conceive
- whether she wants to retain her fertility and/or her uterus. **[2017]**

Levonorgestrel-releasing intrauterine system (LNG-IUS)

1.4.3 Explain to women who are offered an LNG-IUS:

- about anticipated changes in bleeding pattern, particularly in the first few cycles and maybe lasting longer than 6 months
- that it is advisable to wait for at least 6 cycles to see the benefits of the treatment. **[2007, amended 2017]**

Impact of treatments on fertility

1.4.4 Explain to women about the impact on fertility that any planned surgery or uterine artery embolisation (UAE) may have, and if a potential treatment (hysterectomy or ablation) involves loss of fertility then opportunities for discussion should be made available. **[2007, amended 2017]**

1.4.5 Explain to women that uterine artery embolisation or myomectomy may potentially allow them to retain their fertility. **[2007, amended 2017]**

Endometrial ablation

1.4.6 Advise women to avoid subsequent pregnancy and use effective contraception, if needed, after endometrial ablation. **[2007]**

Hysterectomy

1.4.7 Have a full discussion with all women who are considering hysterectomy about the implications of surgery before a decision is made. The discussion should include:

- sexual feelings
- impact on fertility
- bladder function
- need for further treatment
- treatment complications
- her expectations
- alternative surgery
- psychological impact. **[2007, amended 2017]**

1.4.8 Inform women about the increased risk of serious complications (such as intraoperative haemorrhage or damage to other abdominal organs) associated with hysterectomy when uterine fibroids are present. **[2007]**

1.4.9 Inform women about the risk of possible loss of ovarian function and its consequences, even if their ovaries are retained during hysterectomy. **[2007]**

1.5 Management of HMB

1.5.1 When agreeing the treatment options for HMB with the woman, take into account:

- the woman's preferences
- any comorbidities
- the presence or absence of polyps, fibroids (including size, number and location), endometrial pathology or adenomyosis
- other symptoms such as pressure and pain. **[2017]**

Treatments for women with no identified pathology, fibroids less than 3 cm in diameter, or suspected or diagnosed adenomyosis

1.5.2 Consider levonorgestrel-releasing intrauterine system (LNG-IUS) as the first treatment for HMB to women with:

- no identified pathology **or**
- fibroids less than 3 cm in diameter which are causing no distortion of the uterine cavity **or**
- suspected or diagnosed adenomyosis. **[2017]**

1.5.3 If a woman with HMB declines LNG-IUS or it is not suitable, consider a choice of pharmacological treatments:

- non-hormonal:
  - tranexamic acid
  - NSAIDs (non-steroidal anti-inflammatory drugs)
- hormonal:
  - combined hormonal contraception

- cyclical oral progestogens. **[2017]**

1.5.4 If treatment is unsuccessful, the woman declines pharmacological treatment, or symptoms are severe, consider referral to secondary care for:

- investigations to diagnose the cause of HMB (see section 1.3), if needed, taking into account any investigations the woman has already had **and**
- alternative treatment choices, including:
  - pharmacological options not already tried (see recommendation 1.5.2 and 1.5.3)
  - surgical options:
    - second-generation endometrial ablation
    - hysterectomy. **[2017]**

1.5.5 For women with submucosal fibroids, consider hysteroscopic removal. **[2017]**

Treatments for women with fibroids of 3 cm or more in diameter

1.5.6 When advising women on treatment for fibroids of 3 cm or more in diameter, take into account the size, the location and the number of fibroids, and the severity of the symptoms (see recommendation 1.5.1). **[2017]**

1.5.7 Consider referring women to secondary care to undertake additional investigations and discuss treatment options for fibroids of 3 cm or more in diameter. **[2017]**

1.5.8 If pharmacological treatment is needed while investigations and definitive treatment are being organised, offer tranexamic acid and/or NSAIDs. **[2007, amended 2017]**

1.5.9 Advise women to continue using NSAIDs and/or tranexamic acid for as long as they are found to be beneficial. **[2007, amended 2017]**

1.5.10 Prior to scheduling of UAE or myomectomy, the woman's uterus and fibroid(s) should be assessed by ultrasound. If further information about fibroid position, size, number and vascularity is needed, MRI should be considered. **[2007]**

1.5.11 Be aware that the effectiveness of some pharmacological treatments for HMB may be limited in women with fibroids that are substantially greater than 3 cm in diameter. **[2017]**

1.5.12 Consider a choice of the following treatments for HMB in women with fibroids of 3 cm or more in diameter:

- pharmacological:
  - non-hormonal:
    - ◊ tranexamic acid
    - ◊ NSAIDs
  - hormonal:
    - ◊ ulipristal acetate (see recommendation 1.5.13)
    - ◊ LNG-IUS
    - ◊ cyclical oral progestogens
    - ◊ combined hormonal contraception
- uterine artery embolisation
- surgical:
  - myomectomy
  - hysterectomy. **[2017]**

1.5.13 If ulipristal acetate is the preferred treatment option:

- Offer ulipristal acetate 5 mg (up to 4 courses)[1] to women with heavy menstrual bleeding and fibroids of 3 cm or more in diameter, and a haemoglobin level of 102 g per litre or below. **[2016]**

[1] The summary of product characteristics states: 'In case of repeated intermittent treatment, periodic monitoring of the endometrium is recommended. This includes annual ultrasound to be performed after resumption of menstruation during off-treatment period.'

- Consider ulipristal acetate 5 mg (up to 4 courses)[1] for women with heavy menstrual bleeding and fibroids of 3 cm or more in diameter, and a haemoglobin level above 102 g per litre. **[2016]**

1.5.14 Consider second-generation endometrial ablation as a treatment option for women with HMB and fibroids of 3 cm or more in diameter who meet the criteria specified in the manufacturers' instructions. **[2017]**

1.5.15 If treatment is unsuccessful:

- consider further investigations to reassess the cause of HMB (see section 1.3), taking into account the results of previous investigations **and**
- offer alternative treatment with a choice of the options described in recommendation 1.5.12. **[2017]**

To find out why the committee made the 2017 recommendations on management of HMB and how they might affect practice see rationale and impact.

1.5.16 Pretreatment before hysterectomy and myomectomy should be considered if uterine fibroids are causing an enlarged or distorted uterus. **[2007, amended 2017]**

Route and method of hysterectomy

1.5.17 When discussing the route of hysterectomy (laparoscopy, laparotomy or vaginal) with the woman, carry out an individual assessment and take her preferences into account. **[2007, amended 2017]**

1.5.18 Discuss the options of total hysterectomy (removal of the uterus and the cervix) and subtotal hysterectomy (removal of the uterus and retention of the cervix) with the woman. **[2007, amended 2017]**

Removal of ovaries (oophorectomy) with hysterectomy

1.5.19 Only remove ovaries with hysterectomy with the express wish and informed consent of the woman, after discussion of all associated risks and benefits. **[2007, amended 2017]**

Dilatation and curettage

1.5.20 Do not offer dilatation and curettage as a treatment option for HMB. **[2007, amended 2017]**

1.5.21 If dilatation is needed for non-hysteroscopic endometrial ablation:

- confirm that there is no evidence of uterine perforation or false passage
- use hysteroscopy before inserting the ablation device, to establish the condition of the uterus
- use ultrasound to ensure correct uterine placement of the ablation device; if the device uses a balloon, keep this inflated during the ultrasound scan. **[2007, amended 2017]**

Recommendations for research

The guideline committee has made the following recommendations for research.

1 Hysteroscopy compared with ultrasound or empiric pharmacological treatment in the diagnosis and management of heavy menstrual bleeding

Is initial testing using hysteroscopy more effective than testing with pelvic ultrasound or empiric pharmacological treatment in the diagnosis and management of heavy menstrual bleeding (HMB)?

Why this is important

There is no consensus about the best test-and-treat strategy for women with HMB, and empiric pharmacological treatment is often initiated as a first treatment without investigation. Parameters of diagnostic accuracy give useful information about a test's ability to detect a condition (or the absence of a condition). But accurate diagnosis does not automatically result in a better overall outcome for the woman,

because this also depends on treatment decisions after the diagnosis is made. However, it is thought that optimal treatment depends on accurate diagnosis of the underlying pathology causing HMB. In the absence of clinical trials, decision analytical economic models evaluating all possible outpatient testing algorithms have indicated that using ultrasound or hysteroscopy for initial diagnostic testing for women with HMB are the most effective diagnostic strategies. Pelvic ultrasound has been most commonly used because it has been more widely available and is considered less intrusive than hysteroscopy. However, advances in technology mean that the hysteroscopy is well tolerated in the outpatient setting, and it can potentially be performed outside the traditional hospital environment in a community setting. Moreover, in contrast with ultrasound, hysteroscopy allows concomitant treatment of intrauterine pathologies such as endometrial polyps and submucosal fibroids. It also facilitates the fitting of levonorgesterol-releasing intrauterine systems (LNG-IUS). A test-and-treat randomised controlled trial with cost-effectiveness analysis could help to answer the crucial question of whether hysteroscopy improves outcomes for women and results in more effective use of NHS resources.

2 Effectiveness of the progestogen-only pill, injectable progestogens, or progestogen implants in alleviating heavy menstrual bleeding

How effective are the progestogen only pill, injectable progestogens or progestogen implants in alleviating HMB?

Why this is important

Many women use LNG-IUS as the first-line pharmacological treatment for HMB, but it is not acceptable to all women. Combined oral contraceptives have also been shown to be effective for treating HMB, but their use is contraindicated in some women. Other progestogens used for contraception have far fewer contraindications than combined contraceptives, but their effectiveness as a treatment for HMB has not been studied. A randomised controlled trial or cohort prospective observational study could compare the effectiveness of progestogens with other pharmacological treatments for HMB.

3 Long-term outcomes of pharmacological and uterine-sparing surgical treatments for women with heavy menstrual bleeding associated with adenomyosis

What are the long-term clinical outcomes of pharmacological and uterine-sparing surgical treatments in women with HMB associated with adenomyosis?

Why this is important

Adenomyosis is common, and the symptoms cause significant morbidity, including restriction of daily activities. A wide range of incidences have been suggested, but most studies report a prevalence of between 20 and 35%. Despite this, there is little evidence about the impact of adenomyosis on symptoms of HMB or the best treatment for this condition. Optimising treatment can lead to better patient satisfaction and the avoidance of unnecessary investigations and treatments. In order to do this, a better understanding of the impact of adenomyosis in causing HMB, pain and subfertility is needed. A prospective clinical registry would allow long-term clinical outcomes such as patient satisfaction and re-intervention for refractory symptoms, to be recorded after pharmacological and uterine-sparing surgical treatments for women with adenomyosis.

4 Hysteroscopic removal of submucosal fibroids compared with other uterine-sparing treatments for women with heavy menstrual bleeding

Is hysteroscopic removal of submucosal fibroids more effective and cost-effective than other uterine-sparing treatments for the management of HMB?

Why this is important

HMB is thought to be caused by submucosal fibroids in around 15% of women. Such fibroids are amenable to minimally invasive surgical removal (‘hysteroscopic myomectomy’), avoiding the need for surgical incision. Non-comparative data have reported improvement in HMB symptoms and the avoidance of further pharmacological or surgical treatment in 70 to 80% of treated women. However, specific hysteroscopic surgical skills are necessary to optimise surgical success and minimise complications. Recent advances in endoscopic technologies have made

hysteroscopic myomectomy potentially safer and more feasible. A randomised controlled trial comparing this technique with long-term pharmacological therapy or more invasive surgical intervention would provide information on long-term outcomes.

5 Second-generation endometrial ablation in women with heavy menstrual bleeding associated with myometrial pathology

Are outcomes after second-generation endometrial ablation for women with HMB associated with myometrial pathology (adenomyosis and/or uterine fibroids) equivalent to those for women without myometrial pathology?

Why this is important

With the wider availability of high-resolution transvaginal pelvic ultrasound, adenomyosis and fibroids have been recognised as 2 of the most common uterine pathologies in women presenting with HMB. Pharmacological treatments appear to be less effective in the presence of these conditions, making referral to secondary care for surgery more likely. Second-generation endometrial ablation is a minimally invasive, uterine-sparing surgical procedure, but its effectiveness in women with adenomyosis or uterine fibroids is unclear. Thus women with these conditions may be denied second-generation endometrial ablation and undergo unnecessary invasive surgery such as hysterectomy. On the other hand, women may be subjected to ineffective second-generation endometrial ablation that delays more effective treatment such as hysterectomy. It is therefore important to evaluate the effectiveness of second-generation endometrial ablation in women with these conditions, and a cohort controlled study is suggested as the best approach for doing this.

Rationale and impact

Investigations for women with HMB

Why the committee made the 2017 recommendations

Before starting investigations for HMB

The committee agreed that investigation is not necessary before starting treatment when history and examination do not suggest structural abnormalities or endometrial pathology.

Hysteroscopy for women with suspected polyps, submucosal fibroids or endometrial pathology

Outpatient hysteroscopy is recommended for women with HMB if intracavitary abnormalities or endometrial pathology are suspected because:

- the evidence showed that it is more accurate (higher sensitivity and specificity) in identifying them than pelvic ultrasound
- it is safe and has a low risk of complications
- it is acceptable to women if done according to best practice guidelines
- women can have polyps and submucosal fibroids removed during the procedure, and targeted biopsy if needed
- it is cost-effective as part of a diagnosis and treatment strategy.

For women who decline hysteroscopy, the committee agreed that hysteroscopy under general anaesthetic can be considered, because the benefits of accurate identification outweigh the risks of anaesthesia.

Endometrial biopsy at the time of hysteroscopy

'Blind' endometrial biopsy is not recommended because it may not identify treatable lesions and it is painful for women.

Ultrasound for women with possible larger fibroids

Hysteroscopy is not able to detect abnormalities outside the uterine cavity, such as subserous or intramural fibroids, or adenomyosis. When an examination suggests a large or several fibroids, pelvic ultrasound (transvaginal or transabdominal) is

recommended instead of hysteroscopy and is likely to be particularly cost-effective in this context.

When abdominal or vaginal examination is difficult to perform or inconclusive (for example, because the woman is obese) pelvic ultrasound should be offered to identify any abnormalities that might have otherwise been suggested by examination.

Ultrasound for women who decline hysteroscopy

The committee agreed that 2-dimensional pelvic ultrasound can be considered for women who decline hysteroscopy, provided that they understand and accept that it is less accurate in detecting intracavitary abnormalities and endometrial pathology.

Ultrasound for women with possible adenomyosis

The evidence showed that transvaginal ultrasound is more accurate than transabdominal ultrasound or MRI for detecting adenomyosis. Although transvaginal ultrasound is more intrusive than the other investigations, the committee's experience suggests that many women find it acceptable. It is also widely available in primary and secondary care.

Transvaginal ultrasound may not be acceptable to or suitable for some women, such as women who have not been sexually active or women with female genital mutilation. The committee agreed that transabdominal ultrasound or MRI can be considered for these women, provided that they understand and accept that they are less accurate for detecting adenomyosis.

How the 2017 recommendations might affect practice

Hysteroscopy

Hysteroscopy, in preference to pelvic ultrasound, is now being recommended as the investigation for causes of HMB when polyps, submucosal fibroids or endometrial pathology are suspected. This change in practice will have a resource impact on service organisation and training.

Ultrasound is available through direct booking in primary care, whereas hysteroscopy is not. Changes to services will be needed to allow direct access

booking into one-stop hysteroscopy services and to increase delivery in community-based clinics. This would entail that GPs or nurses may need training to perform hysteroscopy in primary care. However, there should be ongoing savings as the number of unnecessary investigations is reduced and women are offered effective treatment as a result of more accurate diagnosis.

To ensure that outpatient hysteroscopy is acceptable to women, it is essential that the procedure is done according to best practice guidelines, including techniques and equipment to minimise discomfort and pain in women; adequately sized, equipped, and staffed facilities; staff with necessary training, skills and expertise; and the need for audit and benchmarking of outcomes.

Ultrasound

Two-dimensional transvaginal and transabdominal ultrasound are already widely available in primary and secondary care.

The committee noted that clinicians might need additional training and experience in interpreting transvaginal ultrasound scans to identify signs of adenomyosis.

> For full details of the evidence and the committee's discussion see evidence review A: diagnostic test accuracy in investigation for women presenting with heavy menstrual bleeding.

Management of HMB

Why the committee made the 2017 recommendations

The committee emphasised the importance of talking to the woman about her needs and preferences when deciding on treatments for HMB. This includes any plans for pregnancy and whether she wants to retain her uterus or fertility. The committee also highlighted that the cause of HMB and other symptoms should be taken into account. This is to ensure that the most appropriate management strategy is offered to the woman.

Treatments for women with no identified pathology, fibroids less than 3 cm in diameter, or suspected or diagnosed adenomyosis

In current practice LNG-IUS is a first-line treatment for HMB in these women. Evidence supported this, showing that it is as effective, or more effective, than other treatments in improving health-related quality of life and satisfaction with treatment. It also offered the best balance of benefits and costs. However, more research is needed to determine whether investigations prior to first-line treatment with LNG-IUS as a management strategy would benefit the woman.

The available evidence did not show clinically important differences in effectiveness and acceptability among the other pharmacological treatments, so there are several options that may be considered if a woman declines LNG-IUS or it is not suitable.

For women with severe symptoms and those for whom initial treatment is unsuccessful, the committee agreed that referral to secondary care may be considered, because some women may benefit from further investigations (in particular those who started treatment without investigations) or from management by a specialist.

There was a lack of evidence about second-line treatment, so a choice of pharmacological and surgical options can be considered.

The committee agreed that women who decline pharmacological treatment and ask for surgery as a first treatment may be referred to secondary care for consideration of further investigations and surgical treatment. The evidence showed that reduction in blood loss and satisfaction with treatment was greater for hysterectomy and second-generation endometrial ablation techniques than for first-generation endometrial ablation.

No evidence was found about hysteroscopic removal of submucosal fibroids, but the committee agreed that it is an effective treatment that is acceptable to women. It can be done at the same time as diagnostic hysteroscopy if facilities are available.

Treatments for women with fibroids of 3 cm or more in diameter

The committee emphasised the importance of taking into account the size, number and location of fibroids, and severity of symptoms, when treating fibroids of 3 cm or

more in diameter. This is because women with fibroids that are substantially greater than 3 cm in diameter may benefit from more invasive treatment, such as uterine artery embolisation or surgery. Therefore, referral to secondary care to discuss all treatment options with the woman can be considered.

There was limited evidence that did not favour any one treatment over others for women with fibroids of 3 cm or more in diameter. However, the evidence for pharmacological treatment options was mainly for fibroids not substantially greater than 3 cm in diameter, whereas the evidence for interventional or surgical treatments was mainly for fibroids substantially greater than 3 cm in diameter. The committee agreed that pharmacological treatment is not always the best option for fibroids that are substantially greater than 3 cm in diameter because of their physical effect on the uterine cavity. In addition, some women may prefer not to have pharmacological treatment. Therefore uterine artery embolisation and surgery are included as first-line treatment options.

Evidence on ulipristal acetate was not reviewed as part of this guideline update, but the committee agreed that it is an option for these women.

The committee agreed that second-generation endometrial ablation may be suitable for some women with fibroids that are substantially greater than 3 cm in diameter in the absence of associated pressure-related fibroid symptoms. They were unable to define criteria for eligibility, because these differ for the different techniques (in terms of the size, shape, uniformity and integrity of the uterine cavity) and are specified by the manufacturers.

There was a lack of evidence about specific second-line treatments, so the committee agreed that alternative pharmacological and surgical options should be considered, after reviewing whether further investigation is needed.

How the 2017 recommendations might affect practice

The committee noted that the recommendations should reinforce current best practice and help to reduce variation in clinical practice for the treatment of HMB.

In current practice, hysterectomy is a second-line treatment strategy for heavy menstrual bleeding, where women need to have tried and failed first-line treatment

strategies before being offered a hysterectomy. Offering hysterectomy as a first-line treatment strategy may result in an increase in hysterectomies performed in women who wish to undergo the procedure.

For full details of the evidence and the committee's discussion see evidence review B: management of heavy menstrual bleeding.

Putting this guideline into practice

[This section will be completed after consultation]

NICE has produced tools and resources [link to tools and resources tab] to help you put this guideline into practice.

[Optional paragraph if issues raised] Some issues were highlighted that might need specific thought when implementing the recommendations. These were raised during the development of this guideline. They are:

- [add any issues specific to guideline here]
- [Use 'Bullet left 1 last' style for the final item in this list.]

Putting recommendations into practice can take time. How long may vary from guideline to guideline, and depends on how much change in practice or services is needed. Implementing change is most effective when aligned with local priorities.

Changes recommended for clinical practice that can be done quickly – like changes in prescribing practice – should be shared quickly. This is because healthcare professionals should use guidelines to guide their work – as is required by professional regulating bodies such as the General Medical and Nursing and Midwifery Councils.

Changes should be implemented as soon as possible, unless there is a good reason for not doing so (for example, if it would be better value for money if a package of recommendations were all implemented at once).

Different organisations may need different approaches to implementation, depending on their size and function. Sometimes individual practitioners may be able to respond to recommendations to improve their practice more quickly than large organisations.

Here are some pointers to help organisations put NICE guidelines into practice:

1. **Raise awareness** through routine communication channels, such as email or newsletters, regular meetings, internal staff briefings and other communications with all relevant partner organisations. Identify things staff can include in their own practice straight away.

2. **Identify a lead** with an interest in the topic to champion the guideline and motivate others to support its use and make service changes, and to find out any significant issues locally.

3. **Carry out a baseline assessment** against the recommendations to find out whether there are gaps in current service provision.

4. **Think about what data you need to measure improvement** and plan how you will collect it. You may want to work with other health and social care organisations and specialist groups to compare current practice with the recommendations. This may also help identify local issues that will slow or prevent implementation.

5. **Develop an action plan**, with the steps needed to put the guideline into practice, and make sure it is ready as soon as possible. Big, complex changes may take longer to implement, but some may be quick and easy to do. An action plan will help in both cases.

6. **For very big changes** include milestones and a business case, which will set out additional costs, savings and possible areas for disinvestment. A small project group could develop the action plan. The group might include the guideline champion, a senior organisational sponsor, staff involved in the associated services, finance and information professionals.

7. **Implement the action plan** with oversight from the lead and the project group. Big projects may also need project management support.

8. **Review and monitor** how well the guideline is being implemented through the project group. Share progress with those involved in making improvements, as well as relevant boards and local partners.

NICE provides a comprehensive programme of support and resources to maximise uptake and use of evidence and guidance. See our into practice pages for more information.

Also see Leng G, Moore V, Abraham S, editors (2014) Achieving high quality care – practical experience from NICE. Chichester: Wiley.

Context

Heavy menstrual bleeding (HMB) is defined as excessive menstrual blood loss which interferes with a woman's physical, social, emotional and/or material quality of life. It can occur alone or in combination with other symptoms.

HMB is one of the most common reasons for gynaecological consultations in both primary and secondary care. About 1 in 20 women aged between 30 and 49 years consult their GP each year because of heavy periods or menstrual problems, and menstrual disorders comprise 12% of all referrals to gynaecology services.

The focus of this guideline is on women of reproductive age (after puberty and before the menopause) with HMB, including women with suspected or confirmed fibroids, and women with suspected or confirmed adenomyosis. The guideline does not primarily cover women with gynaecological bleeding other than HMB (for example, intermenstrual bleeding or postcoital bleeding) or with gynaecological conditions in which HMB is not the main symptom (such as endometriosis).

Since the publication of the original guideline in 2007, equipment and software for transvaginal ultrasound have improved. Outpatient hysteroscopy has become more widely available, and is more acceptable to women with the advent of modern equipment such as miniature hysteroscopes. Therefore the relative clinical and cost effectiveness of diagnostic strategies have changed. Improvements in diagnostic imaging in recent years have resulted in an increase in the reported prevalence of

adenomyosis. Adenomyosis, which is associated with abnormal uterine bleeding, pelvic pain and infertility, was not included in the previous version of the guideline.

This guideline makes recommendations on a range of pharmacological and surgical treatment options for HMB. Outpatient management comprising insertion of a levonorgestrel-releasing intrauterine system (LNG-IUS) has increased in popularity in recent years, and there has been a reduction in surgical procedures. On the other hand, some endometrial ablation techniques (such as microwave endometrial ablation) are no longer available in the UK.

The guideline aims to help healthcare professionals advise each woman with HMB about the treatments that are right for her, with a clear focus on the woman's choice. It should be borne in mind that it is the woman herself who decides whether a treatment has been successful.

More information

To find out what NICE has said on topics related to this guideline, see our web pages on endometriosis and fibroids and gynaecological conditions.

Update information

This guideline is an update of NICE guideline CG44 (published January 2007) and will replace it.

New recommendations have been added for the diagnosis and management of women with heavy menstrual bleeding.

Recommendations are marked as **[2017]** if the recommendation is new or the evidence has been reviewed.

NICE proposes to delete some recommendations from the 2007 guideline, because either the evidence has been reviewed and the recommendations have been updated, or NICE has updated other relevant guidance and has replaced the original recommendations. Recommendations that have been deleted or changed sets out these recommendations and includes details of replacement recommendations.

Where there is no replacement recommendation, an explanation for the proposed deletion is given.

Where recommendations are shaded in grey and end **[2007]**, the evidence has not been reviewed since the original guideline.

Where recommendations are shaded in grey and end **[2007, amended 2017]**, the evidence has not been reviewed but changes have been made to the recommendation. These may be:

- changes to the meaning of the recommendation (for example, because of equalities duties or a change in the availability of medicines, or incorporated guidance has been updated)
- editorial changes to the original wording to clarify the action to be taken.

These changes are marked with yellow shading, and explanations of the reasons for the changes are given in 'Recommendations that have been deleted or changed' for information.

Where recommendations are shaded in grey and end **[2016]**, the evidence has not been reviewed since the recommendations were updated in 2016.

See also the original NICE guideline and supporting documents.

Recommendations that have been deleted or changed

Recommendations to be deleted

Recommendation in 2007 guideline	Comment
1.1.2 For clinical purposes, HMB should be defined as excessive menstrual blood loss which interferes with the woman's physical, emotional, social and material quality of life, and which can occur alone or in combination with other symptoms. Any interventions should aim to improve quality of life measures	This recommendation has been deleted because the definition of heavy menstrual bleeding is included in the context section.
1.2.5 Measuring menstrual blood loss either directly (alkaline haematin) or indirectly ('Pictorial blood loss assessment chart') is not routinely recommended for HMB. Whether menstrual blood loss is a problem should	This recommendation has been deleted because practice has changed and PBAC is only used in research settings.

be determined not by measuring blood loss but by the woman herself.	
1.2.7 Women with fibroids that are palpable abdominally or who have intracavity fibroids and/or whose uterine length as measured at ultrasound or hysteroscopy is greater than 12 cm should be offered immediate referral to a specialist.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.2.14 Imaging should be undertaken in the following circumstances: • The uterus is palpable abdominally. • Vaginal examination reveals a pelvic mass of uncertain origin. • Pharmaceutical treatment fails.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.3)
1.2.15 Ultrasound is the first-line diagnostic tool for identifying structural abnormalities.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.3)
1.2.16 Hysteroscopy should be used as a diagnostic tool only when ultrasound results are inconclusive, for example, to determine the exact location of a fibroid or the exact nature of the abnormality.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.3)
1.2.17 If imaging shows the presence of uterine fibroids then appropriate treatment should be planned based on size, number and location of the fibroids.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.3)
1.3.1 A woman with HMB referred to specialist care should be given information before her outpatient appointment. The Institute's information for the public is available.	This recommendation has been deleted because it is covered by the NICE guideline on patient experience in adult NHS services (CG138).
1.3.2 Although respect for autonomy, and individual choice, are important for the NHS and its users, they should not have the consequence of promoting the use of interventions that are not clinically and/or cost effective	This recommendation has been deleted because it is a general principle of all NICE guidelines.
1.3.4 Women should be given the following information on potentially unwanted outcomes. [table]	This recommendation has been deleted because the table was incomplete and can quickly become out of date. Healthcare professionals should refer to summaries of product characteristics and tell women about patient information leaflets.
1.4.1 Give a woman with HMB the opportunity to review and agree any treatment decision, ensuring that she has	This recommendation has been deleted because it is covered by the NICE

adequate time and support from healthcare professionals in the decision-making process	guideline on patient experience in adult NHS services (CG138).
1.4.2 A woman with HMB and/or her doctor should have the option of gaining a second medical opinion where agreement on treatment options for HMB is not reached.	This recommendation has been deleted because it is covered by the NICE guideline on patient experience in adult NHS services (CG138).
1.5.1 Pharmaceutical treatment should be considered where no structural or histological abnormality is present, or for fibroids less than 3 cm in diameter which are causing no distortion of the uterine cavity.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.2 The healthcare professional should determine whether hormonal contraception is acceptable to the woman before recommending treatment (for example, she may wish to conceive).	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.3 If history and investigations indicate that pharmaceutical treatment is appropriate and either hormonal or non-hormonal treatments are acceptable, treatments should be considered in the following order: • levonorgestrel-releasing intrauterine system (LNG-IUS) provided long-term (at least 12 months) use is anticipated • tranexamic acid or non-steroidal anti-inflammatory drugs (NSAIDs) or combined oral contraceptives (COCs) • norethisterone (15 mg) daily from days 5 to 26 of the menstrual cycle, or injected long-acting progestogens	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.4 If hormonal treatments are not acceptable to the woman, then either tranexamic acid or NSAIDs can be used.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.7 When HMB coexists with dysmenorrhoea, NSAIDs should be preferred to tranexamic acid.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.10 When a first pharmaceutical treatment has proved ineffective, a second pharmaceutical treatment can be considered rather than immediate referral to surgery. (See also recommendation 1.2.14.)	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.13 Use of a gonadotrophin-releasing hormone analogue could be considered prior to surgery or when all other treatment options for uterine fibroids,	This recommendation has been deleted because it does not reflect current practice.

including surgery or uterine artery embolisation, are contraindicated. If this treatment is to be used for more than 6 months or if adverse effects are experienced then hormone replacement therapy (HRT) 'add-back' therapy is recommended	
1.5.14 Danazol should not be used routinely for the treatment of HMB.	This recommendation has been deleted because it does not reflect current practice. This agent was explicitly excluded from the review protocol for this reason.
1.5.15 Oral progestogens given during the luteal phase only should not be used for the treatment of HMB.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.5.16 Etamsylate should not be used for the treatment of HMB.	This recommendation has been deleted because it does not reflect current practice. This agent was explicitly excluded from the protocol for this reason.
1.6.1 Endometrial ablation should be considered where bleeding is having a severe impact on a woman's quality of life, and she does not want to conceive in the future.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.6.2 Endometrial ablation may be offered as an initial treatment for HMB after full discussion with the woman of the risks and benefits and of other treatment options.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.6.4 Endometrial ablation should be considered in women with HMB who have a normal uterus and also those with small uterine fibroids (less than 3 cm in diameter).	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.6.5 In women with HMB alone, with a uterus no bigger than a 10-week pregnancy, endometrial ablation should be considered preferable to hysterectomy.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.6.6 All women considering endometrial ablation should have access to a second generation ablation technique.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.6.7 Second generation ablation techniques should be used where no structural or histological abnormality is present. The second generation techniques recommended for consideration are as follows. Providers should ensure that when purchasing any	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)

of these that they buy the least expensive available option , , , . Impedance-controlled bipolar radiofrequency ablation (formerly NICE interventional procedure guidance 104) Fluid-filled thermal balloon endometrial ablation (TBEA) (formerly NICE interventional procedure guidance 6) Microwave endometrial ablation (MEA) (formerly NICE interventional procedure guidance 7) Free fluid thermal endometrial ablation (formerly NICE interventional procedure guidance 51).	
1.6.8 In TBEA, endometrial thinning is not needed.	This recommendation has been deleted because this recommendation is no longer needed as the manufacturer's instructions are followed in practice.
1.6.9 In MEA, scheduling of surgery for postmenstrual phase is an alternative to endometrial thinning.	This recommendation has been deleted because the technique is no longer used.
1.6.10 First-generation ablation techniques (for example, rollerball endometrial ablation [REA] and transcervical resection of the endometrium [TCRE]) are appropriate if hysteroscopic myomectomy is to be included in the procedure.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.7.1 For women with large fibroids and HMB, and other significant symptoms such as dysmenorrhoea or pressure symptoms, referral for consideration of surgery or uterine artery embolisation (UAE) as first line treatment can be recommended.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.7.2 UAE, myomectomy or hysterectomy should be considered in cases of HMB where large fibroids (greater than 3 cm in diameter) are present and bleeding is having a severe impact on a woman's quality of life.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.7.3 When surgery for fibroid-related HMB is felt necessary then UAE, myomectomy and hysterectomy must all be considered, discussed and documented.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.7.5 Myomectomy is recommended for women with HMB associated with uterine fibroids and who want to retain their uterus.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)

1.7.6 UAE is recommended for women with HMB associated with uterine fibroids and who want to retain their uterus and/or avoid surgery.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.7.9 If a woman is being treated with gonadotrophin-releasing hormone analogue and UAE is then planned, the gonadotrophin-releasing hormone analogue should be stopped as soon as UAE has been scheduled.	This recommendation has been deleted because this is standard practice and it is covered by local protocols.
1.8.1 Hysterectomy should not be used as a first line treatment solely for HMB. Hysterectomy should be considered only when: • other treatment options have failed, are contraindicated or are declined by the woman • there is a wish for amenorrhoea • the woman (who has been fully informed) requests it • the woman no longer wishes to retain her uterus and fertility	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.8.2 Women offered hysterectomy should have a full discussion of the implication of the surgery before a decision is made. The discussion should include: sexual feelings, fertility impact, bladder function, need for further treatment, treatment complications, the woman's expectations, alternative surgery and psychological impact.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.8.3 Women offered hysterectomy should be informed about the increased risk of serious complications (such as intraoperative haemorrhage or damage to other abdominal organs) associated with hysterectomy when uterine fibroids are present.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.8.4 Women should be informed about the risk of possible loss of ovarian function and its consequences, even if their ovaries are retained during hysterectomy.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.8.7 Under circumstances such as morbid obesity or the need for oophorectomy during vaginal hysterectomy, the laparoscopic approach should be considered, and appropriate expertise sought.	This recommendation has been deleted because it is not current practice. The topic of routes of hysterectomy has been flagged with the NICE surveillance review team.

1.9.1 Removal of healthy ovaries at the time of hysterectomy should not be undertaken	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.9.3 Women with a significant family history of breast or ovarian cancer should be referred for genetic counselling prior to a decision about oophorectomy.	This recommendation has been deleted because genetic counselling is outside the remit of this guideline.
1.9.4 In women under 45 considering hysterectomy for HMB with other symptoms that may be related to ovarian dysfunction (for example, premenstrual syndrome), a trial of pharmaceutical ovarian suppression for at least 3 months should be used as a guide to the need for oophorectomy.	This recommendation has been deleted because the Committee did not agree with a 45 years of age cut-off.
1.9.5 If removal of ovaries is being considered, the impact of this on the woman's wellbeing and, for example, the possible need for hormone replacement therapy (HRT) should be discussed.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.9.6 Women considering bilateral oophorectomy should be informed about the impact of this treatment on the risk of ovarian and breast cancer.	This recommendation has been deleted because it is replaced by new recommendations in the 2017 update (see section 1.5)
1.10.1 All those involved in undertaking surgical or radiological procedures to diagnose and treat HMB should demonstrate competence (including both technical and consultation skills) either during their training or in their subsequent practice.	This recommendation has been deleted NICE no longer makes general recommendations on training.
1.10.2 The operative competence of healthcare professionals who are acquiring new skills in procedures to diagnose and treat HMB should be formally assessed by trainers through a structured process such as that defined within training schemes of the Postgraduate Medical Education and Training Board, the Royal Colleges and/or the Society and Colle	This recommendation has been deleted NICE no longer makes general recommendations on training.
1.10.3 Training programmes must be long enough to enable healthcare professionals to achieve competency in complex procedures when these are appropriate (for example, operations for fibroids that are large or in an awkward position, or using laparoscopic techniques). These training programmes will usually be located in units with a	This recommendation has been deleted NICE no longer makes general recommendations on training.

particular interest and sufficient workload to allow experience of these procedures	
1.10.4 Maintenance of surgical, imaging or radiological skills requires a robust clinical governance framework including audit of numbers, decision making, case-mix issues and outcomes of all treatments at both individual operator and organisational levels. These data should be used to demonstrate good clinical practice.	This recommendation has been deleted because it describes basic good practice that could be said to apply to all specialties.
1.10.5 Established healthcare professionals should be able to demonstrate that their training, experience and current practice meets or exceeds the standards laid out for newly trained professionals.	This recommendation has been deleted because it describes basic good practice that could be said to apply to all specialties.
1.10.6 If a healthcare professional lacks competence to undertake a procedure then they should refer the woman to a professional with the appropriate skill. Organisations that commission services should be responsible (through service specification based on robust audit data) for identifying and contracting professionals with appropriate skills.	This recommendation has been deleted because it describes basic good practice that could be said to apply to all specialties.

1

2 **Amended recommendation wording (change to meaning)**

Recommendation in 2007 guideline	Recommendation in current guideline	Reason for change
Initially, a history should be taken from the woman. This should cover the nature of the bleeding, related symptoms that might suggest structural or histological abnormality (see recommendation 1.2.4), impact on quality of life and other factors that may determine treatment options (such as presence of comorbidity). (1.2.1)	Take a history from the woman that covers: • the nature of the bleeding • related symptoms that might suggest intracavitary abnormality, histological abnormality or adenomyosis (see recommendation 1.2.4) • impact on her quality of life • other factors that may affect treatment options (such as comorbidities). **[2007, amended 2017]** (1.2.1)	'structural abnormality' has been replaced by 'intracavitary abnormality' because this is a more precise term. Adenomyosis has been added, since diagnosis and treatment of this condition is now covered in the guideline update.

If the history suggests HMB without structural or histological abnormality, pharmaceutical treatment can be started without carrying out a physical examination or other investigations at initial consultation in primary care, unless the treatment chosen is levonorgestrel-releasing intrauterine system (LNG IUS) (see recommendation 1.2.6). (1.2.3)	If the woman's history suggests HMB without intracavitary abnormality, histological abnormality or adenomyosis, consider pharmacological treatment without carrying out a physical examination (unless the treatment chosen is levonorgestrel-releasing intrauterine system (LNG IUS)). **[2007, amended 2017]** (1.2.3)	'structural abnormality' has been replaced by 'intracavitary abnormality' because this is a more precise term. Adenomyosis has been added, since diagnosis and treatment of this condition is now covered in the guideline update. The verb has been changed to 'consider' in line with current NICE style and the management recommendations. 'Other investigations in primary care' has been taken out to avoid overlap with another recommendation (1.3.2) that covers investigation. Text has been moved to clarify the meaning.
If the history suggests HMB with structural or histological abnormality, with symptoms such as intermenstrual or postcoital bleeding, pelvic pain and/or pressure symptoms, a physical examination and/or other investigations (such as ultrasound) should be performed. (1.2.4)	If the woman's history suggests HMB with intracavitary abnormality, histological abnormality or adenomyosis, with symptoms such as intermenstrual bleeding, pelvic pain and/or pressure symptoms, offer a physical examination and/or other investigations (see section 1.3). **[2007, amended 2017]** (1.2.4)	'structural abnormality' has been replaced by 'intracavitary abnormality' because this is a more precise term. Adenomyosis has been added, since diagnosis and treatment of this condition is now covered in the guideline update. Postcoital bleeding has been taken out because it is not a usual symptom of intracavitary abnormality, histological

		abnormality or adenomyosis. The verb has been changed to 'offer' in line with current NICE style.
A physical examination should be carried out before all: • LNG-IUS fittings • investigations for structural abnormalities • investigations for histological abnormalities. (1.2.6)	Carry out a physical examination before all: • LNG-IUS fittings • investigations for intracavitary abnormalities • investigations for histological abnormalities. **[2007, amended 2017]** (1.2.5)	'structural abnormalities' has been replaced by 'intracavitary abnormalities' because this is a more precise term.
If appropriate, a biopsy should be taken to exclude endometrial cancer or atypical hyperplasia. Indications for a biopsy include, for example, persistent intermenstrual bleeding, and in women aged 45 and over, treatment failure or ineffective treatment. (1.2.13)	Consider endometrial biopsy at the time of hysteroscopy for women who are at high risk of endometrial hyperplasia, such as: • women who are obese • women with persistent intermenstrual bleeding, or irregular or infrequent bleeding (for example, women with polycystic ovary syndrome) • women taking tamoxifen • women for whom treatment for HMB has been unsuccessful. **[2007, amended 2017]** (1.3.8)	The committee amended this recommendation to reflect current practice by: • using the verb 'consider' for consistency with current style • specifying endometrial biopsy for clarity • adding 'at the time of hysteroscopy', for consistency with the updated recommendations about diagnosis • removing the age cut-off, because it is no longer relevant • adding some other groups of women who are at higher risk of endometrial hyperplasia, to ensure that these women are offered appropriate investigations.

If pharmaceutical treatment is required while investigations and definitive treatment are being organised, either tranexamic acid or NSAIDs should be used. (1.5.6)	If pharmacological treatment is needed while investigations and definitive treatment are being organised, offer tranexamic acid and/or NSAIDs. **[2007, amended 2017]** (1.5.8)	Wording changed to clarify the action taken and 'either – or' changed to 'and/or' to reflect clinical practice and align with wording in the subsequent recommendation using 'and/or' on continued use of the same treatments.
Pretreatment before hysterectomy and myomectomy with a gonadotrophin-releasing hormone analogue for 3 to 4 months should be considered where uterine fibroids are causing an enlarged or distorted uterus. (1.7.8)	Pretreatment before hysterectomy and myomectomy should be considered if uterine fibroids are causing an enlarged or distorted uterus. **[2007, amended 2017]** (1.5.16)	The committee agreed that pretreatment may be important. However, they decided not to specify an agent, as new treatments may be available in the future and they did not want to restrict options. The length of treatment was also deleted, as this would depend on the agent.
Taking into account the need for individual assessment, the route of hysterectomy should be considered in the following order: first line vaginal; second line abdominal. (1.8.6)	When discussing the route of hysterectomy (laparoscopy, laparotomy or vaginal) with the woman, carry out an individual assessment and take her preferences into account. **[2007, amended 2017]** (1.5.17)	The comparison between different routes of hysterectomy was out of the scope of the protocol. The committee agreed the old recommendation is no longer valid, as the laparoscopic route is usually preferable. However they agreed to place the emphasis on women's choice.
When abdominal hysterectomy is decided upon then both the total method (removal of the uterus and the cervix) and subtotal method (removal of the uterus and preservation of the cervix) should be discussed with the woman. (1.8.8)	Discuss the options of total hysterectomy (removal of the uterus and the cervix) and subtotal hysterectomy (removal of the uterus and retention of the cervix) with the woman. **[2007, amended 2017]** (1.5.18)	The committee did not review the route of hysterectomy, but agreed that the recommendation wording was out of date and made changes to reflect this.

Removal of ovaries should only be undertaken with the express wish and consent of the woman. (1.9.2)	Only remove ovaries with hysterectomy with the express wish and informed consent of the woman, after discussion of all associated risks and benefits. **[2007, amended 2017]** (1.5.19)	The committee did not review removal of ovaries with hysterectomy, but agreed it is essential to specify that a full discussion of risks and benefits is needed.
Where dilatation is required for non-hysteroscopic ablative procedures, hysteroscopy should be used immediately prior to the procedure to ensure correct placement of the device. (1.2.21)	If dilatation is needed for non-hysteroscopic endometrial ablation: • confirm that there is no evidence of uterine perforation or false passage • use hysteroscopy before inserting the ablation device, to establish the condition of the uterus • use ultrasound to ensure correct uterine placement of the ablation device; if the device uses a balloon, keep this inflated during the ultrasound scan. **[2007, amended 2017]** (1.5.21)	The recommendation has been amended by the Committee to reflect the latest guidance from the Medicines and Healthcare products Regulatory Agency (MHRA).

Changes to recommendation wording for clarification only (no change to meaning)

Recommendation numbers in current guideline	Comment
1.2.8, 1.2.9, 1.2.10, 1.3.14, 1.3.15, 1.3.16, 1.4.3, 1.4.4, 1.4.5, 1.4.7, 1.5.9, 1.5.10, 1.5.20	NICE has made editorial changes to the original wording to clarify the action to be taken (no change to meaning): a verb has been added, the verb used has been changed or other wording has changed for clarification.
1.5.13	The stem was added in order for the recommendations to align with the other recommendations, the meaning has not been changed.

ISBN: