Menorrhagia

Last revised in December 2018 Next planned review by December 2022

Changes

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December 2018 — minor update. The sections on Diagnosis (particularly the section on Investigations) and Management have been updated to reflect new recommendations in the 2018 National Institute for Health and Care Excellence (NICE) guideline *Heavy menstrual bleeding: assessment and management [NICE, 2018]*. The management section has been restructured to simplify use.

December 2017 — minor update. Added information about fetal malformations and effectiveness of hormonal contraceptives as an effect of topiramate.

June to July 2017 — reviewed. A literature search was conducted in June 2017 to identify evidence-based guidelines, UK policy, systematic reviews, and key randomized controlled trials published since the last revision of the topic.

Previous changes

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August 2015 — minor update. The section on Prescribing information has been updated to reflect expert opinion and the NHS Regional Drugs and Therapeutics Centre Bulletin in relation to the recommendation for mefenamic acid.

February 2013 — minor update. The 2013 QIPP options for local implementation have been added to this topic.

October 2012 — minor update. The 2012 QIPP options for local implementation have been added to this topic.

September 2012 — minor update. Black triangle removed from Qlaira® tablets.

August 2012 — reviewed. A literature search was conducted in July 2012 to identify evidence-based guidelines, UK policy, systematic reviews, and key RCTs published since the last revision of the topic. No changes to clinical recommendations have been made.

May 2011 — information on Qlaira®, a quadraphasic combined oral contraceptive pill, was added to prescribing information. Issued in June 2011.

May 2011 — the 2010/2011 QIPP options for local implementation have been added to this topic. Issued in June 2011.

January 2011 — correction to the dosage and usage instructions for tranexamic acid. Prescription also corrected. Issued in January 2011.

October 2010 — topic structure revised to ensure consistency across CKS topics — no changes to clinical recommendations have been made.

September 2010 — minor update. A prescription for Rigevidon®, another new ethinylestradiol plus levonorgestrel combined oral contraceptive pill, has been added. Issued in September 2010.

June 2010 — minor update. A prescription for Levest®, a new ethinylestradiol plus levonorgestrel combined oral contraceptive pill, has been added. Issued in June 2010.

February 2009 — minor update to the combined oral contraceptive pill prescriptions. The upper age limit for use has been reduced to 50 years. Issued in March 2009.

June to September 2007 — converted from CKS guidance to CKS topic structure. The evidence-base has been reviewed in detail, and recommendations are more clearly justified and transparently linked to the supporting evidence. The most important change to the recommendations is that the levonorgestrel-releasing intrauterine system is now recommended first-line for most women with heavy menstrual bleeding.

October 2005 — minor technical update. Issued in November 2005.

July 2005 — updated to incorporate the *Referral guidelines for suspected cancer* published by the National Institute for Health and Care Excellence. Issued in July 2005.

February 2005 — updated to include prescribing advice from the Committee on Safety of Medicines on the effect of depot medroxyprogesterone acetate contraception on bones. Issued in February 2005.

May 2004 — reviewed. Validated in September 2004 and issued in November 2004.

March 2002 — updated to incorporate referral advice from the National Institute for Health and Care Excellence. Issued in April 2002.

June 2001 — reviewed. Validated in July 2001 and issued in October 2001.

October 1998 — written.

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Update

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New evidence

Evidence-based guidelines

- National Institute for Health and Care Excellence (2018) Heavy menstrual bleeding: assessment and management. NICE. www.nice.org.uk (https://www.nice.org.uk/) [Free Full-Text (https://www.nice.org.uk/guidance/cg44)]

HTAs (Health Technology Assessments)

No new HTAs since 1 July 2017.

Economic appraisals

No new economic appraisals relevant to England since 1 July 2017.

Systematic reviews and meta-analyses

- Lethaby, A., Wise, M., Weterings, M., et al (2019) *Combined hormonal contraceptives for heavy menstrual bleeding*. The Cochrane Library. www.cochranelibrary.com (https://www.cochranelibrary.com/) [Free Full-text (https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD000154.pub3/full)]

Primary evidence

No new randomized controlled trials published in the major journals since 1 July 2017.

New policies

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No new national policies or guidelines since 1 July 2017.

New safety alerts

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No new safety alerts since 1 July 2017.

Changes in product availability

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No changes in product availability since 1 July 2017.

Goals

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To support primary healthcare professionals to:

- Understand the likely causes of excessive menstrual bleeding
- Reduce or stop excessive menstrual bleeding
- Prevent or correct iron deficiency anaemia due to heavy menstrual bleeding
- Refer women who may benefit from surgical treatments or where there is diagnostic uncertainty
- Improve the quality of life of women with heavy menstrual bleeding

Outcome measures

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No outcome measures were found during the review of this topic.

Audit criteria

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No audit criteria were found during the review of this topic.

QOF indicators

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No QOF indicators were found during the review of this topic.

QIPP — Options for local implementation

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- **Nonsteroidal anti-inflammatory drugs (NSAIDs)**
  - Review the appropriateness of NSAID prescribing widely and on a routine basis, especially in people who are at higher risk of both gastrointestinal (GI) and cardiovascular (CV) morbidity and mortality (for example, older people).
  - If an NSAID is needed, use ibuprofen (1200 mg per day or less) or naproxen (1000 mg per day or less). Use the lowest effective dose and the shortest duration of treatment necessary to control symptoms.
  - Co-prescribe a proton pump inhibitor (PPI) with NSAIDs for people with osteoarthritis, or rheumatoid arthritis, and think about the use of gastroprotective treatment when prescribing NSAIDs for low back pain.

[NICE, 2017 (/menorrhagia#!references)]

NICE quality standards

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- Women presenting with symptoms of heavy menstrual bleeding have a detailed history and a full blood count taken.
- Women with heavy menstrual bleeding in whom a structural or histological abnormality is suspected have a physical examination before referral for further investigations.
- Women with heavy menstrual bleeding without suspected structural or histological abnormalities are offered drug treatment at the initial assessment.

- Women with heavy menstrual bleeding who are undergoing further investigations or awaiting definitive treatment are offered tranexamic acid or nonsteroidal anti-inflammatory drugs at the initial assessment.
- Women with heavy menstrual bleeding and a normal uterus or small uterine fibroids who choose surgical intervention have a documented discussion about endometrial ablation as a preferred treatment to hysterectomy.
- Women with heavy menstrual bleeding related to large uterine fibroids who choose surgical or radiological intervention have a documented discussion about uterine artery embolisation, myomectomy and hysterectomy.

[NICE, 2013 (/menorrhagia#!references)]

What is it?

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- **Menorrhagia is excessive (heavy) menstrual blood loss** that occurs regularly (every 24 to 35 days) which interferes with a woman's physical, emotional, social, and material quality of life.
  - Excessive menstrual blood loss is classified as 80 mL or more and/or a duration of more than 7 days — direct measurement of menstrual blood loss is accurate, but complex to undertake in clinical practice.
    - The average blood loss during menses is 30–40 mL, and 90% of women have losses less than 80 mL.
  - Excessive menstrual bleeding is also defined as the need to change menstrual products every one to two hours, passage of clots greater than 2.54 cm, and/or 'very heavy' periods as reported by the woman.
- Menorrhagia can occur alone or in combination with other symptoms.
- For the purposes of this CKS topic, the terms *menorrhagia* and *heavy menstrual bleeding* are used interchangeably.

[Apgar et al, 2007 (/menorrhagia#!references); Sweet, 2012 (/menorrhagia#!references); Duckitt 2015 (/menorrhagia#!references); NICE, 2018 (/menorrhagia#!references)]

How common is it?

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- **Menorrhagia is one of the most common reasons for referral to a gynaecologist.**
- The prevalence of menorrhagia increases with age, peaking in women aged 30–49 years.
  - Five percent of women aged 30–49 years in the UK, and 2–4% of pre-menopausal women in New Zealand consult their GP each year due to excessive uterine bleeding.
- Up to 25% of women suffer at least one episode of dysfunctional uterine bleeding during their reproductive age.
- In the UK 20% of women have a hysterectomy before the age of 60, mainly to alleviate heavy bleeding.

[IOG, 2015 (/menorrhagia#!references); BMJ, 2017a (/menorrhagia#!references); BMJ, 2017b (/menorrhagia#!references); NICE, 2018 (/menorrhagia#!references)]

What are the causes of menorrhagia?

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- **In almost 50% of women with menorrhagia, no cause is identified** — this is classified as dysfunctional uterine bleeding.
- In other women, the aetiology can be classified by the cause. Causes of menorrhagia include:
  - **Uterine and ovarian pathologies:**
    - Uterine fibroids (dysmenorrhoea, pelvic pain) — reported in 10% of women with menorrhagia and in 40% of women with severe menorrhagia (blood loss of 200 mL/cycle or more). For more information, see the CKS topic on Fibroids (/fibroids).
    - Endometriosis and adenomyosis (dysmenorrhoea, dyspareunia, pelvic pain, difficulty conceiving). For more information, see the CKS topic on Endometriosis (/endometriosis).
    - Pelvic inflammatory disease and pelvic infection (for example chlamydia — may also present with vaginal discharge, pelvic pain, intermenstrual and postcoital bleeding, and fever). For more information, see the CKS topic on Pelvic inflammatory disease (/pelvic-inflammatory-disease).
    - Endometrial polyps (intermenstrual bleeding).
    - Endometrial hyperplasia or carcinoma (postcoital bleeding, intermenstrual bleeding, pelvic pain).
    - Polycystic ovary syndrome (causes anovulatory menorrhagia and irregular bleeding). For more information, see the CKS topic on Polycystic ovary syndrome (/polycystic-ovary-syndrome).
  - **Systemic diseases and disorders:**
    - Coagulation disorders (for example von Willebrand disease).
    - Hypothyroidism (which may also present with fatigue, constipation, intolerance of cold, and hair and skin changes). For more information, see the CKS topic on Hypothyroidism (/hypothyroidism).
    - Diabetes mellitus.
    - Hyperprolactinaemia.
    - Liver or renal disease.
  - **Iatrogenic causes:**
    - Anticoagulant treatment.
    - Chemotherapy.
    - Herbal supplements (for example ginseng, ginkgo, and soya) — these may cause menstrual irregularities by altering oestrogen levels or coagulation parameters.
    - Intrauterine contraceptive device. For more information, see the CKS topic on Contraception - IUS/IUD (/contraception-iusiud).

[Sweet, 2012 (/menorrhagia#!references); ACOG, 2013 (/menorrhagia#!references); Duckitt 2015 (/menorrhagia#!references); BMJ, 2017b (/menorrhagia#!references)]

What are the complications?

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- **Quality of life —** heavy menstrual bleeding may negatively affect the woman's physical. social, emotional and/or material quality of life.

- **Iron deficiency anaemia —** this occurs in about two-thirds of women with heavy menstrual bleeding.
- **Endometrial pathology —** there is an increased risk of endometrial pathology and possible development of endometrial cancer when anovulatory dysfunctional uterine bleeding lasts for years without treatment.

[Duckitt 2015 (/menorrhagia#!references); BMJ, 2017b (/menorrhagia#!references); NICE, 2018 (/menorrhagia#!references)]

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How should I assess a woman with suspected menorrhagia?

- **Take a detailed clinical history.**
  - Ask about:
    - The nature of the bleeding and the impact on the woman's quality of life.
    - The woman's age — in the first year after menarche and in the perimenopause, heavy bleeding is associated with irregular cycles which may be due to anovulatory bleeding.
    - Cervical screening history — to confirm she has attended as scheduled and results were normal. For more information, see the CKS topic on Cervical screening (/cervical-screening).
    - Details of the woman's normal menstrual cycle (such as length of the cycle and number of days of menstruation) and any variation of this pattern.
    - Sexual history — this should include current contraceptive use (hormonal contraceptives may cause irregular bleeding), contraceptive plans, and future plans for a family (as this may impact on the choice of treatment). Consider the possibility of pregnancy, including an ectopic pregnancy, in all women with menorrhagia. For more information, see the CKS topic on Ectopic pregnancy (/ectopic-pregnancy).
    - Medical history — ask about endometriosis, a family history of coagulation disorders that may have a hereditary component (for example von Willebrand disease), and other comorbidities.
    - Drug history (including previous treatment for menorrhagia).
    - Related symptoms (such as persistent intermenstrual bleeding, pelvic pain, and/or pressure symptoms) — these may suggest uterine cavity abnormality, histological abnormality, adenomyosis, or fibroids.
  - **If the woman has a history of menorrhagia *without* other related symptoms (such as persistent intermenstrual bleeding, pelvic pain, and/or pressure symptoms),** consider starting pharmacological treatment (/menorrhagia#!scenarioRecommendation:1) *without* carrying out a physical examination (unless the treatment chosen is the levonorgestrel-releasing intrauterine system [LNG IUS]).
- **If the woman has a history of menorrhagia with other related symptoms, offer a physical examination.**
  - Look for features of an underlying systemic disease, for example:
    - Hypothyroidism — goitre. For more information, see the CKS topic on Hypothyroidism (/hypothyroidism).

        - Coagulation disorders (for example von Willebrand disease) — bruises or petechiae. For more information, see the CKS topic on Bruising (/bruising).
        - Polycystic ovary syndrome — acne, hirsutism. For more information, see the CKS topic on Polycystic ovary syndrome (/polycystic-ovary-syndrome).
    - Perform an abdominal examination — to assess for large fibroids and other masses.
    - Perform a bimanual pelvic examination (including a speculum examination of the cervix), except in young girls who are not sexually active:
        - To exclude an underlying cause, such as ascites, fibroids, or gynaecological cancer. For more information, see the CKS topics on Fibroids (/fibroids), Cervical cancer and HPV (/cervical-cancer-and-hpv), and Gynaecological cancers - recognition and referral (/gynaecological-cancers-recognition-and-referral).
        - If the LNG-IUS is being considered. For more information, see the CKS topic on Contraception - IUS/IUD (/contraception-iusiud).
- **Arrange investigations as appropriate.**
    - Arrange a full blood count in all women — to rule out iron deficiency anaemia (which is a strong indicator of excessive menstrual bleeding). For more information, see the CKS topic on Anaemia - iron deficiency (/anaemia-iron-deficiency).
    - For women with suspected submucosal fibroids, polyps, or endometrial pathology — offer a hysteroscopy or ultrasound to assess for a cause of menorrhagia. For more information, see the section on Investigations for the cause of menorrhagia (/menorrhagia#!diagnosisSub:1).
        - **If the woman's history and/or examination suggests a low risk of fibroids, uterine cavity abnormality, histological abnormality, or adenomyosis,** consider starting pharmacological treatment (/menorrhagia#!scenarioRecommendation:1) for menorrhagia without investigating the cause.
    - Arrange other investigations as suggested by history and clinical findings, for example:
        - A vaginal or cervical swab — if an infection is suspected.
        - Thyroid function tests — if there are features of hypothyroidism. For more information, see the CKS topic on Hypothyroidism (/hypothyroidism).
        - Tests for coagulation disorders (for example von Willebrand disease) — in women who have had heavy menstrual bleeding since menarche, and a personal or a family history of a coagulation disorder.
    - **It is *not* necessary to measure blood loss to diagnose menorrhagia.**

Basis for recommendation

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These recommendations are based on the National Institute for Health and Care Excellence (NICE) guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)], the Faculty of Sexual and Reproductive Healthcare (FSRH) guidance *Problematic bleeding with hormonal contraception* [FSRH, 2015 (/menorrhagia#!references)], the Institute of Obstetricians and Gynaecologists (IOG) guideline *The Investigation and management of menorrhagia* [IOG, 2015 (/menorrhagia#!references)], and the British Medical Journal (BMJ) best practice guides *Menorrhagia* [BMJ, 2017a (/menorrhagia#!references)] and *Dysfunctional uterine bleeding* [BMJ, 2017b (/menorrhagia#!references)].

- The recommendations on when pharmacological treatments can be considered without carrying out physical examination or investigations for the cause of menorrhagia are based on the NICE guideline [NICE, 2018 (/menorrhagia#!references)]. For full details of the evidence for the recommendations and the NICE guideline committee's discussions, see the NICE evidence reviews (http://www.nice.org.uk/Guidance/NG88/evidence).

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How should I investigate for the cause of menorrhagia?

- **Suspected submucosal fibroids, polyps, or endometrial pathology**
  - **Offer referral for outpatient hysteroscopy** to women with menorrhagia if their history (/menorrhagia#!diagnosisSub) suggests submucosal fibroids, polyps, or endometrial pathology because they have:
    - Symptoms such as persistent intermenstrual bleeding *or*
    - Risk factors for endometrial pathology.
  - Explain what the procedure involves, and discuss the possible alternatives.
    - If the woman declines outpatient hysteroscopy, offer referral for hysteroscopy under general or regional anaesthesia.
    - If the woman declines hysteroscopy under general or regional anaesthesia, consider referral for a pelvic ultrasound, explaining the limitations of this technique for detecting uterine cavity causes of menorrhagia.
- **Possible larger fibroids**
  - **Offer a pelvic ultrasound** to women with menorrhagia if any of the following apply:
    - Their uterus is palpable abdominally.
    - History or examination (/menorrhagia#!diagnosisSub) suggests a pelvic mass.
    - Examination is inconclusive or difficult, for example in women who are obese.
- **Suspected adenomyosis**
  - **Offer a transvaginal ultrasound** (in preference to a transabdominal ultrasound or MRI [magnetic resonance imaging]) to women with menorrhagia who have significant dysmenorrhoea (period pain) or a bulky, tender uterus on examination (/menorrhagia#!diagnosisSub) that suggests adenomyosis.
    - If a transvaginal ultrasound is declined or unsuitable, consider a transabdominal ultrasound or MRI, explaining the limitations of these techniques.
    - Be aware that pain associated with menorrhagia may be caused by endometriosis rather than adenomyosis. For more information, see the CKS topic on Endometriosis (/endometriosis).

Basis for recommendation

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These recommendations are based on the National Institute for Health and Care Excellence (NICE) guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)]. NICE based these recommendations on the available evidence for diagnostic accuracy. For full details of the evidence and the NICE guideline development mittee's

discussion, see NICE evidence review A: diagnostic test accuracy in investigation for women presenting with heavy menstrual bleeding (https://www.nice.org.uk/guidance/ng88/evidence/a-diagnostic-test-accuracy-pdf-4782293101).

- **For women with suspected submucosal fibroids, polyps, or endometrial pathology:**
  - Outpatient hysteroscopy is recommended because:
    - Evidence identified by NICE showed that it is more accurate (higher sensitivity and specificity) in identifying uterine cavity abnormalities or endometrial pathology 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 submucosal fibroids and polyps removed during the procedure, and targeted biopsy if needed.
    - It is cost-effective as part of a diagnosis and treatment strategy.
  - The NICE guideline development committee agreed that:
    - For women who decline outpatient hysteroscopy, hysteroscopy under general or regional anaesthetic should be offered because the benefits of accurate identification outweigh the risks of anaesthesia.
    - For women who decline hysteroscopy under general or regional anaesthetic, pelvic ultrasound can be considered provided that they understand and accept that it is less accurate in detecting uterine cavity abnormalities and endometrial pathology.
- **For women with a large fibroid or several fibroids:**
  - The NICE guideline development committee recommends pelvic ultrasound (transvaginal or transabdominal) instead of hysteroscopy because:
    - Hysteroscopy is not able to detect abnormalities outside the uterine cavity, such as subserous or intramural fibroids, or adenomyosis.
    - It is likely to be particularly cost-effective in this context.
  - The committee agreed that if abdominal or vaginal examination is difficult to perform or inconclusive (for example because the woman is obese), pelvic ultrasound would be helpful to identify any abnormalities that might have otherwise been suggested by examination.
- **For women with suspected adenomyosis:**
  - Evidence identified by NICE showed that transvaginal ultrasound is more accurate than transabdominal ultrasound or MRI (magnetic resonance imaging) 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 secondary care, and sometimes in primary care.
  - For women in whom transvaginal ultrasound is unacceptable or unsuitable, 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, provided that the women understand and accept that they are less accurate for detecting adenomyosis.

Impact on practice

- The NICE guideline development committee noted that these new recommendations may impact current practice.

- Hysteroscopy, in preference to pelvic ultrasound, for women with menorrhagia who are suspected of having submucosal fibroids, polyps, or endometrial pathology will have a resource impact on service organization and training.
  - Ultrasound is available through direct booking in primary care, whereas hysteroscopy is not. Therefore, changes to services will be needed to allow direct access booking into one-stop hysteroscopy services and ideally to increase delivery in community-based clinics.
  - 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 minimize 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.
- Transvaginal and transabdominal ultrasound are already widely available in secondary care and sometimes in primary care. However, clinicians might need additional training and experience in interpreting transvaginal ultrasound scans to identify signs of adenomyosis.

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Scenario: Management of menorrhagia (heavy menstrual bleeding)

When should I refer a women with menorrhagia?

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- **Refer the woman:**
  - **Urgently** if physical examination identifies ascites and/or a pelvic or abdominal mass (which is not obviously due to uterine fibroids).
  - **Using a suspected cancer pathway referral** (for an appointment within 2 weeks) if she has a pelvic mass associated with any other features of cancer (such as unexplained bleeding or weight loss). For more information, see the CKS topic on Gynaecological cancers - recognition and referral (/gynaecological-cancers-recognition-and-referral).
- **Also refer if:**
  - There are complications, such as compressive symptoms from large fibroids (for example dyspareunia, pelvic pain or discomfort, constipation, or urinary symptoms). For more information on when to refer women with fibroids, see the section on Management of fibroids (/fibroids#!scenario) in the CKS topic on Fibroids (/fibroids).
  - The woman has iron deficiency anaemia which has failed to respond to treatment, and other causes have been excluded.
  - Menorrhagia has not improved despite initial treatments (/menorrhagia#!scenarioRecommendation:1).
- **Consider referring** women with fibroids of 3 cm or more in diameter to specialist care for additional investigations. For more information, see the section on Primary care management (/menorrhagia#!scenarioRecommendation:1).
- **If pharmacological treatment is needed while the woman is awaiting treatment or referral appointment,** offer tranexamic acid (/menorrhagia#!prescribingInfoSub) and/or a non steroidal anti-inflammatory drug (/menorrhagia#!prescribingInfoSub:5).

Basis for recommendation Back to top

These recommendations are based on the National Institute for Health and Care Excellence (NICE) guidelines *Suspected cancer: recognition and referral* [NICE, 2015 (/menorrhagia#!references)] and *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)], the Institute of Obstetricians and Gynaecologists (IOG) guideline *The investigation and management of menorrhagia* [IOG, 2015 (/menorrhagia#!references)] and the British Medical Journal (BMJ) best practice guide *Dysfunctional uterine bleeding* [BMJ, 2017b (/menorrhagia#!references)].

How should I manage women with menorrhagia in primary care?

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- **Provide information on menorrhagia and its management.**
  - Discuss the natural variability and range of menstrual blood loss with the woman. For some women, reassurance may be all that is required, and treatment may not be needed.
  - If the woman feels that she does not fall within the normal ranges, provide information (/menorrhagia#!scenarioClarification) on the possible treatment options 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, and whether she wants to retain her fertility and/or her uterus.
  - Provide written information, such as patient information leaflets, to explain the condition and treatment options.
    - The NHS website (www.nhs.uk (https://www.nhs.uk/)) has patient information on Heavy periods (https://www.nhs.uk/conditions/heavy-periods/).
- **For women with no identified pathology, fibroids less than 3 cm in diameter, or suspected or diagnosed adenomyosis:**
  - Consider a levonorgestrel intrauterine system (LNG-IUS) as the first-line treatment. For information on the LNG-IUS, including adverse effect, contraindications, and interactions, see the CKS topic on Contraception - IUS/IUD (/contraception-iusiud).
  - If an LNG-IUS is declined or unsuitable, consider the following pharmacological treatments:
    - Non-hormonal: tranexamic acid (/menorrhagia#!prescribingInfoSub) or a non steroidal anti-inflammatory drug (/menorrhagia#!prescribingInfoSub:5) (NSAID).
    - Hormonal: combined hormonal contraception (CHC) or a cyclical oral progestogen (such as oral norethisterone (/menorrhagia#!prescribingInfoSub:7)). For information on CHCs, including adverse effect, contraindications, and interactions, see the CKS topic on Contraception - combined hormonal methods (/contraception-combined-hormonal-methods).
  - Be aware that progestogen-only contraception may suppress menstruation, which could be beneficial to women with menorrhagia. For information on progestogen-only contraception, see the CKS topic on Contraception - progestogen-only methods (/contraception-progestogen-only-methods).
  - If treatment is unsuccessful, the woman declines pharmacological treatment, or symptoms are severe, consider referral to a specialist for:
    - Investigations to diagnose the cause of menorrhagia, if needed, taking into account any investigations (/menorrhagia#!diagnosisSub:1) the woman has already had, *and*

        - Alternative treatment choices, including pharmacological options not already tried and surgical options (second-generation endometrial ablation and hysterectomy). For women with submucosal fibroids, hysteroscopic removal may be considered.
- **For women with fibroids of 3 cm or more in diameter,** consider specialist referral for additional investigations and consideration of treatment options.
    - If pharmacological treatment is needed while the woman is awaiting treatment or referral appointment, offer tranexamic acid (/menorrhagia#!prescribingInfoSub) and/or an NSAID (/menorrhagia#!prescribingInfoSub:5). Advise women to continue using tranexamic acid and/or NSAIDs for as long as they are found to be beneficial.
    - Taking into account the size, location, and number of fibroids; the severity of the symptoms; the presence of any comorbidities; and the preference of the woman, secondary care treatment options for women with fibroids of 3 cm or more in diameter include:
        - Pharmacological treatment — hormonal (ulipristal acetate, LNG-IUS, CHC, or cyclical oral progestogens) or non-hormonal (NSAIDs or tranexamic acid).
        - Uterine artery embolization.
        - Surgery — myomectomy, hysterectomy, or second-generation endometrial ablation (considered for women with menorrhagia and fibroids of 3 cm or more in diameter who meet the criteria specified in the manufacturers' instructions).

Information on treatment options Back to top

Information on the treatment options for menorrhagia should be provided to (and discussed with) the woman and should cover the benefits and risks of the various options, suitable treatments if she is trying to conceive, and whether she wants to retain her fertility and/or her uterus.

- **Levonorgestrel-releasing intrauterine system**
    - Women should be informed:
        - 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.
- **Uterine artery embolization (UAE)**
    - UAE involves cannulating the femoral artery and identifying the uterine arteries before injecting an embolic agent into them to impair the blood supply to the uterus and fibroids (if present).
    - Women should be informed that UAE may potentially allow them to retain their fertility.
- **Myomectomy**
    - Women should be informed that myomectomy may potentially allow them to retain their fertility.
    - Myomectomy may increase pregnancy rates compared with UAE in women with fibroids who wish to retain fertility.
- **Hysterectomy**
    - The route of hysterectomy can be vaginal, abdominal, or laparoscopic. It may include removal or preservation of the ovaries, and/or removal or preservation of the cervix.
    - Women 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.
        - About the risk of possible loss of ovarian function and its consequences, even if their ovaries are retained during hysterectomy.
    - In all women who are considering hysterectomy, a full discussion should be had about the implications of surgery before a decision is made. The discussion should include:
        - Psychological impact.
        - Alternative surgery.
        - The woman's expectations.
        - Treatment complications.
        - Need for further treatment.
        - Bladder function.
        - Impact on fertility.
- **Endometrial ablation**
    - Endometrial ablation involves destroying the endometrium (lining) and the superficial myometrium (muscle) of the uterus.
    - Women should be informed to avoid subsequent pregnancy and use effective contraception, if needed, after endometrial ablation.

[Haney, 2008 (/menorrhagia#!references); RCOG, 2013 (/menorrhagia#!references); BMJ, 2017c (/menorrhagia#!references); NICE, 2018 (/menorrhagia#!references)]

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Basis for recommendation

Providing information

- These recommendations are based on the National Institute for Health and Care Excellence (NICE) guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)], the Institute of Obstetricians and Gynaecologists (IOG) guideline *The Investigation and management of menorrhagia* [IOG, 2015 (/menorrhagia#!references)], and on what CKS considers to be good clinical practice.

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

- These recommendations are based on the NICE guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)]. For full details of the evidence and the NICE guideline development committee's discussion, see NICE evidence review B: management of heavy menstrual bleeding (https://www.nice.org.uk/guidance/ng88/evidence/b-management-pdf-4782293102).
    - In current practice, the levonorgestrel intrauterine system (LNG-IUS) is a first-line treatment for menorrhagia in this group of women because evidence suggested that it is as effect[illegible]as, 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.
    - **For women for whom the LNG-IUS is unacceptable or unsuitable,** the NICE guideline development committee states that 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 in this case.
    - **For women with severe symptoms and those for whom initial treatment is unsuccessful,** the committee agreed that referral to specialist care may be considered because some women may benefit from further investigations (in particular those who started treatment without investigations) or from specialist management. There was a lack of evidence on second-line treatment, so a choice of pharmacological and surgical options can be considered.
    - **For women who decline pharmacological treatment and ask for surgery as a first treatment,** the committee agreed that they may be referred to specialist 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 on hysteroscopic removal of submucosal fibroids, but the committee agreed that it is an effective treatment that is acceptable to many women. It can be done at the same time as diagnostic hysteroscopy if facilities are available.

Managing women with fibroids of 3 cm or more in diameter

- These recommendations are based on the NICE guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)]. For full details of the evidence and the NICE guideline development committee's discussion, see NICE evidence review B: management of heavy menstrual bleeding (https://www.nice.org.uk/guidance/ng88/evidence/b-management-pdf-4782293102).
    - The limited evidence identified by the NICE guideline development committee 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 emphasized that it is importance to take the size, number, and location of fibroids as well as the severity of symptoms into account when considering treatment options, because:
        - Women with fibroids that are substantially greater than 3 cm in diameter may benefit from more invasive treatment, such as uterine artery embolization or surgery. Therefore, referral to specialist care to discuss all treatment options with the woman should be considered.
        - 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.
    - The committee also:
        - Emphasized the importance of talking to the woman about her needs and preferences when deciding on treatments for menorrhagia, including any plans for pregnancy and whether she wants to retain her uterus or fertility.

- Highlighted that the cause of menorrhagia and other symptoms should be taken into account to ensure that the most appropriate management strategy is offered to the woman.

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Tranexamic acid

Dose

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- Tranexamic acid is licensed for the treatment of menorrhagia.
- Prescribe two 500 mg tablets three times a day, for up to 4 days. The dose may be increased to a maximum of 4 g (8 tablets) daily if required.
- Advise women:
  - That the tablets should only be taken once menstrual bleeding has started.
  - To continue using tranexamic acid for as long as they are found to be beneficial.

[ABPI, 2017a (/menorrhagia#!references); NICE, 2018 (/menorrhagia#!references)]

Contraindications and cautions

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- Do not prescribe tranexamic acid to women with:
  - Fibrinolytic conditions following disseminated intravascular coagulation.
  - History of convulsions.
  - Severe renal impairment (risk of accumulation).
  - A history of (or active) thromboembolic disease (for example, DVT, or pulmonary embolism).
- Prescribe tranexamic acid with caution to women:
  - With irregular menstrual bleeding.
  - Haematuria.
  - Taking oral contraceptives.
  - Taking warfarin or other anticoagulants.

[ABPI, 2017a (/menorrhagia#!references); BNF 73, 2017 (/menorrhagia#!references)]

Adverse effects

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- Possible adverse effects include:
  - Gastrointestinal effects, for example, nausea, vomiting, diarrhoea (common).
  - Allergic dermatitis (uncommon).
  - Visual disturbances (rare).
  - Thromboembolic events (rare).
  - Convulsions (frequency unknown).

[ABPI, 2017a (/menorrhagia#!references); BNF 73, 2017 (/menorrhagia#!references)]

Drug interactions

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- Drug interactions may occur with:
  - Anticoagulants — increased risk of thrombosis.
  - Oral contraceptives — increased risk of thrombosis.
  - Chlorpromazine — increased risk of bleeding.

[BNF 73, 2017 (/menorrhagia#!references); ABPI, 2017a (/menorrhagia#!references); Micromedex, 2016 (/menorrhagia#!references)]

What do I need to know about prescribing a nonsteroidal anti-inflammatory drug?

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- The choice of nonsteroidal anti-inflammatory drug (NSAID) includes ibuprofen, naproxen, or mefenamic acid.
  - Only mefenamic acid is specifically licensed for menorrhagia. However, there are concerns that it is more likely to cause seizures in overdose, and it has a low therapeutic window which increases the risk of accidental overdose.
- The following doses are recommended:
  - Mefenamic acid — 500 mg three times daily.
  - Naproxen — 500 mg as the first dose, then 250 mg every 6–8 hours.
  - Ibuprofen — 400 mg three or four times daily.
- Advise the woman:
  - To start the NSAID on the first day of bleeding and to continue until bleeding stops, or reduces to satisfactory levels.
  - That NSAIDs can be taken for as long as they are beneficial.
- For detailed information on the adverse effects, contraindications, and interactions of NSAIDs, see the CKS topic on NSAIDs - prescribing issues (/nsaids-prescribing-issues).

[RDTC, 2014 (/menorrhagia#!references); BNF 73, 2017 (/menorrhagia#!references); NICE, 2018 (/menorrhagia#!references)]

Oral norethisterone

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Dose

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- Prescribe oral norethisterone (5 mg three times daily) from days 5–26 of the menstrual cycle (the follicular and luteal phases) — this dose is off-label.
  - The licensed regimen, used only during the luteal phase (days 19–26), is no longer recommended as it is ineffective.
- Norethisterone should be taken for a minimum of 3 months, but preferably 6 months, before referral if symptoms have not improved.
- Higher doses are recommended if the woman has severe acute heavy menstrual bleed

[IOG, 2015 (/menorrhagia#!references); NICE, 2016 (/menorrhagia#!references); ABPI, 2017b (/menorrhagia#!references)]

Contraindications and cautions

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- Do not prescribe norethisterone to women who are pregnant, or those with:
  - A history of, or predisposition to, thromboembolism.
  - Liver cancer.
  - Genital or breast cancer (unless progestogens are being used in the management of these conditions).
  - Severe arterial disease.
  - Undiagnosed vaginal bleeding.
  - Acute porphyria.
  - A history during pregnancy of idiopathic jaundice, severe pruritus, or pemphigoid gestationis.
- Prescribe norethisterone with caution to women:
  - With a history of depression.
  - With hypertension.
  - Who have conditions that can be aggravated by fluid retention, including:
    - Epilepsy
    - Migraine
    - Asthma
    - Cardiac dysfunction
    - Renal dysfunction.
    - Asthma.

[ABPI, 2017b (/menorrhagia#!references); BNF 73, 2017 (/menorrhagia#!references)]

Adverse effects

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- Possible adverse effects of norethisterone include:
  - **Gastrointestinal disorders** — nausea (common), vomiting.
  - **Hepatobiliary disorders** — cholestatic jaundice.
  - **Immune system disorders** — anaphylaxis and anaphylactoid reactions, angioedema.
  - **Metabolism and nutrition disorders** — weight gain (common).
  - **Nervous system disorders** — depression (rare), headache (common), dizziness, insomnia.
  - **Skin and subcutaneous disorders** — acne (common), hirsutism, rash, urticaria, oedema, fluid retention, bloating (common).
  - **Reproductive system disorders** — menstrual disturbances, breast tenderness (common).

[Micromedex, 2016 (/menorrhagia#!references); NICE, 2016 (/menorrhagia#!references); BNF 73, 2017 (/menorrhagia#!references); ABPI, 2017b (/menorrhagia#!references)]

Drug interactions

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- Drug interactions may occur with liver enzyme-inducing drugs:
  - Antibiotics — rifampicin and rifabutin.
  - Antiepileptics — carbamazepine, oxcarbazepine, phenytoin, barbiturates, primidone, and topiramate. Topiramate is associated with a risk of fetal malformations and can impair the effectiveness of hormonal contraceptives. Before initiating topiramate in a woman of childbearing potential, pregnancy testing should be performed. The patient should be fully informed of the risks related to the use of topiramate during pregnancy. Ensure that women and girls of childbearing potential are advised that they should be using a highly effective method of contraception. Topiramate is a weak enzyme inducer, but the contraceptive efficacy of the COC may be unaffected by topiramate doses lower than 200 mg daily.
  - Antiretrovirals — ritonavir, ritonavir-boosted protease inhibitors, efavirenz, and nevirapine.
  - St John's wort.

[BNF 73, 2017 (/menorrhagia#!references); ABPI, 2017b (/menorrhagia#!references); ABPI, 2017c (/menorrhagia#!references)]

Search strategy

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Scope of search

A literature search was conducted for guidelines, systematic reviews and randomized controlled trials on primary care management of menorrhagia.

Search dates

July 2012 - August 2017

Key search terms

Various combinations of searches were carried out. The terms listed below are the core search terms that were used for Medline.

- exp Menorrhagia/, menorrhagia.tw., heavy menstrual bleeding.tw.

Sources of guidelines

- National Institute for Health and Care Excellence (NICE) (http://www.nice.org.uk/)
- Scottish Intercollegiate Guidelines Network (SIGN) (http://www.sign.ac.uk/)
- Royal College of Physicians (http://www.rcplondon.ac.uk/)
- Royal College of General Practitioners (http://www.rcgp.org.uk/)

- Royal College of Nursing (http://www.rcn.org.uk/development/practice/clinicalguidelines)
- NICE Evidence (https://www.evidence.nhs.uk/topics/)
- Health Protection Agency (http://www.hpa.org.uk/)
- World Health Organization (http://www.who.int/)
- National Guidelines Clearinghouse (http://www.guideline.gov/)
- Guidelines International Network (http://www.g-i-n.net/)
- TRIP database (http://www.tripdatabase.com/)
- GAIN (http://www.gain-ni.org/index.php/audits/guidelines)
- NHS Scotland National Patient Pathways (http://www.pathways.scot.nhs.uk/)
- New Zealand Guidelines Group (http://www.nzgg.org.nz/)
- Agency for Healthcare Research and Quality (http://www.ahrq.gov/)
- Institute for Clinical Systems Improvement (http://www.icsi.org/)
- National Health and Medical Research Council (Australia) (http://www.nhmrc.gov.au/publications/index.htm)
- Royal Australian College of General Practitioners (http://www.racgp.org.au/your-practice/guidelines/)
- British Columbia Medical Association (http://www.health.gov.bc.ca/gpac/index.html)
- Canadian Medical Association (http://www.cma.ca/index.php/ci_id/54316/la_id/1.htm)
- Alberta Medical Association (http://www.topalbertadoctors.org/cpgs.php)
- University of Michigan Medical School (http://ocpd.med.umich.edu/cme/self-study/)
- Michigan Quality Improvement Consortium (http://mqic.org/guidelines.htm)
- Singapore Ministry of Health (http://www.moh.gov.sg/content/moh_web/home/Publications/guidelines/cpg.html)
- National Resource for Infection Control (http://www.nric.org.uk/)
- Patient UK Guideline links (http://www.patient.co.uk/guidelines.asp)
- UK Ambulance Service Clinical Practice Guidelines (http://www2.warwick.ac.uk/fac/med/research/hsri/emergencycare/jrcalc_2006/guidelines/)
- RefHELP NHS Lothian Referral Guidelines (http://www.refhelp.scot.nhs.uk/index.php?option=com_content&task=view&id=490&Itemid=104)
- Medline (with guideline filter)
- Driver and Vehicle Licensing Agency (http://www.dft.gov.uk/dvla/medical/ataglance.aspx)
- NHS Health at Work (http://www.nhshealthatwork.co.uk/oh-guidelines.asp)(occupational health practice)

Sources of systematic reviews and meta-analyses

- The Cochrane Library (http://www.thecochranelibrary.com/):
  - Systematic reviews
  - Protocols
  - Database of Abstracts of Reviews of Effects
- Medline (with systematic review filter)
- EMBASE (with systematic review filter)

Sources of health technology assessments and economic appraisals

- NIHR Health Technology Assessment programme (http://www.hta.ac.uk/)
- The Cochrane Library (http://www.thecochranelibrary.com/):
  - NHS Economic Evaluations
  - Health Technology Assessments
- Canadian Agency for Drugs and Technologies in Health (http://www.cadth.ca/)
- International Network of Agencies for Health Technology Assessment (http://www.inahta.org/)

Sources of randomized controlled trials

- The Cochrane Library (http://www.thecochranelibrary.com/):
  - Central Register of Controlled Trials
- Medline (with randomized controlled trial filter)
- EMBASE (with randomized controlled trial filter)

Sources of evidence based reviews and evidence summaries

- Bandolier (http://www.medicine.ox.ac.uk/bandolier/)
- Drug & amp; Therapeutics Bulletin (http://dtb.bmj.com/)
- TRIP database (http://www.tripdatabase.com/)
- Central Services Agency COMPASS Therapeutic Notes (http://www.medicinesni.com/courses/type.asp?ID=CN)

Sources of national policy

- Department of Health (http://www.dh.gov.uk/)
- Health Management Information Consortium(HMIC)

Patient experiences

- Healthtalkonline (http://www.healthtalkonline.org/)
- BMJ - Patient Journeys (http://www.bmj.com/bmj-series/patient-journeys)
- Patient.co.uk - Patient Support Groups (http://www.patient.co.uk/selfhelp.asp)

Sources of medicines information

The following sources are used by CKS pharmacists and are not necessarily searched by CKS information specialists for all topics. Some of these resources are not freely available and require subscriptions to access content.

- British National Formulary (http://www.evidence.nhs.uk/formulary/bnf/current)(BNF)
- electronic Medicines Compendium (http://www.medicines.org.uk/)(eMC)
- European Medicines Agency (http://www.ema.europa.eu/ema/)(EMEA)
- LactMed (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT)
- Medicines and Healthcare products Regulatory Agency (http://www.mhra.gov.uk/index.htm) (MHRA)
- REPROTOX (http://www.reprotox.org/Default.aspx)
- Scottish Medicines Consortium (http://www.scottishmedicines.org.uk/Home)
- Stockley's Drug Interactions (https://www.medicinescomplete.com/mc/stockley/current/login.htm?uri=http%3A%2F%2Fwww.medicinescomplete.com%2Fmc%2Fstockley%2Fcurrent%2F)
- TERIS (http://depts.washington.edu/terisweb/teris/)
- TOXBASE (http://www.toxbase.org/)
- Micromedex (http://www.micromedex.com/products/hcs/)
- UK Medicines Information (http://www.ukmi.nhs.uk/)

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Stakeholder engagement

Our policy

The external review process is an essential part of CKS topic development. Consultation with a wide range of stakeholders provides quality assurance of the topic in terms of:

- Clinical accuracy.
- Consistency with other providers of clinical knowledge for primary care.
- Accuracy of implementation of national guidance (in particular NICE guidelines).
- Usability.

Principles of the consultation process

- The process is inclusive and any individual may participate.
- To participate, an individual must declare whether they have any competing interests or not. If they do not declare whether or not they have competing interests, their comments will not be considered.
- Comments received after the deadline will be considered, but they may not be acted upon before the clinical topic is issued onto the website.
- Comments are accepted in any format that is convenient to the reviewer, although an electronic format is encouraged.
- External reviewers are not paid for commenting on the draft topics.
- Discussion with an individual or an organization about the CKS response to their comments is only undertaken in exceptional circumstances (at the discretion of the Clinical Editor or Editorial Steering Group).
- All reviewers are thanked and offered a letter acknowledging their contribution for the purposes of appraisal/revalidation.

- All reviewers are invited to be acknowledged on the website.All reviewers are given the opportunity to feedback about the external review process, enabling improvements to be made where appropriate.

Stakeholders

- Key stakeholders identified by the CKS team are invited to comment on draft CKS topics. Individuals and organizations can also register an interest to feedback on a specific topic, or topics in a particular clinical area, through the Getting involved (http://cks.clarity.co.uk/get-involved/) section of the Clarity Informatics (https://clarity.co.uk/) website.
- Stakeholders identified from the following groups are invited to review draft topics:
  - Experts in the topic area.
  - Professional organizations and societies(for example, Royal Colleges).
  - Patient organizations, Clarity has established close links with groups such as Age UK and the Alzheimer's Society specifically for their input into new topic development, review of current topic content and advice on relevant areas of expert knowledge.
  - Guideline development groups where the topic is an implementation of a guideline.
  - The British National Formulary team.
  - The editorial team that develop MeReC Publications.
- Reviewers are provided with clear instructions about what to review, what comments are particularly helpful, how to submit comments, and declaring interests.

Patient engagement

Clarity Informatics has enlisted the support and involvement of patients and lay persons at all stages in the process of creating the content which include:

- Topic selection
- Scoping of topic
- Selection of clinical scenarios
- First draft internal review
- Second draft internal review
- External review
- Final draft and pre-publication

Our lay and patient involvement includes membership on the editorial steering group, contacting expert patient groups, organizations and individuals.

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Evidence exclusion criteria

Our policy

Scoping a literature search, and reviewing the evidence for CKS is a methodical and systematic process that is carried out by the lead clinical author for each topic. Relevant evidence is gathered in order that the clinical author can make fully informed decisions and recommendations. It is important to note that some evidence may be excluded for a variety of reasons. These reasons may be applied across all CKS topics or may be specific to a given topic.

Studies identified during literature searches are reviewed to identify the most appropriate information to author a CKS topic, ensuring any recommendations are based on the best evidence. We use the principles of the GRADE and PICOT approaches to assess the quality of published research. We use the principles of AGREE II to assess the quality of published guidelines.

Standard exclusions for scoping literature:

- Animal studies
- Original research is not written in English

Possible exclusions for reviewed literature:

- Sample size too small or study underpowered
- Bias evident or promotional literature
- Population not relevant
- Intervention/treatment not relevant
- Outcomes not relevant
- Outcomes have no clear evidence of clinical effectiveness
- Setting not relevant
- Not relevant to UK
- Incorrect study type
- Review article
- Duplicate reference

Organizational, behavioural and financial barriers

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Our policy

The CKS literature searches take into consideration the following concepts, which are discussed at the initial scoping of the topic.

- Feasibility
  - Studies are selected depending on whether the intervention under investigation is available in the NHS and can be practically and safely undertaken in primary care.
- Organizational and Financial Impact Analysis
- Studies are selected and evaluated on whether the intervention under investigations may have an impact on local clinical service provision or national impact on cost for the NHS. The p

clinical budget impact analysis are adhered to, evaluated and recorded by the author. The following factors are considered when making this assessment and analysis.
    - Eligible population
    - Current interventions
    - Likely uptake of new intervention or recommendation
    - Cost of the current or new intervention mix
    - Impact on other costs
    - Condition-related costs
    - In-direct costs and service impacts
    - Time dependencies
- Cost-effectiveness or cost-benefit analysis studies are identified where available.

We also evaluate and include evidence from NICE accredited sources which provide economic evaluations of recommendations, such as NICE guidelines. When a recommended action may not be possible because of resource constraints, this is explicitly indicated to healthcare professionals by the wording of the CKS recommendation.

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Declarations of interest

Our policy

Clarity Informatics requests that all those involved in the writing and reviewing of topics, and those involved in the external review process to declare any competing interests. Signed copies are securely held by Clarity Informatics and are available on request with the permission of the individual. A copy of the declaration of interest form which participants are asked to complete annually is also available on request. A brief outline of the declarations of interest policy is described here and full details of the policy is available on the Clarity Informatics website (https://cks.clarity.co.uk/). Declarations of interests of the authors are not routinely published, however competing interests of all those involved in the topic update or development are listed below. Competing interests include:

- Personal financial interests
- Personal family interest
- Personal non-financial interest
- Non-personal financial gain or benefit

Although particular attention is given to interests that could result in financial gains or losses for the individual, competing interests may also arise from academic competition or for political, personal, religious, and reputational reasons.An individual is not obliged to seek out knowledge of work done for, or on behalf of, the healthcare industry within the departments for which they are responsible if they would not normally expect to be informed.

Who should declare competing interests?

Any individual (or organization) involved in developing, reviewing, or commenting on clinical content, particularly the recommendations should declare competing interests. This includes the authoring team members, expert advisers, external reviewers of draft topics, individuals providing feedback on published topics, and Editorial Steering Group members. Declarations of interest are completed annually for authoring team and editorial steering group members, and are completed at the start of the topic update and development process for external stakeholders.

Competing interests declared for this topic:

None.

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Menorrhagia: Summary

- Menorrhagia is excessive (heavy) menstrual blood loss which occurs regularly (every 24 to 35 days) and interferes with a woman's physical, emotional, social, and material quality of life.
  - Excessive menstrual blood loss is classified as 80 mL or more and/or a duration of more than 7 days; however, direct measurement is complex to undertake in clinical practice.
- Menorrhagia is one of the most common reasons for referral to a gynaecologist. The prevalence increases with age, peaking in women aged 30–49 years.
- In almost 50% of women with menorrhagia, no underlying cause is found. This is called dysfunctional uterine bleeding.
- Underlying causes of menorrhagia include:
  - Uterine and ovarian pathologies, such as uterine fibroids, endometriosis, and pelvic inflammatory disease.
  - Systemic diseases and disorders, such as coagulation disorders, hypothyroidism, diabetes mellitus, and liver or kidney disease.
  - Iatrogenic causes, such as anticoagulant treatment or chemotherapy.
- Diagnosis of menorrhagia should include taking a detailed clinical history and considering the need for a physical examination and investigations.
  - If the woman has a history of menorrhagia without other related symptoms (such as persistent intermenstrual bleeding, pelvic pain, and/or pressure symptoms), pharmacological treatment may be considered without carrying out a physical examination (unless the treatment chosen is the levonorgestrel-releasing intrauterine system [LNG IUS]).
  - If the woman's history and/or examination suggest a low risk of fibroids, uterine cavity abnormality, histological abnormality, or adenomyosis, pharmacological treatment may be considered without investigating the cause of bleeding.
  - A full blood count is indicated in all women with menorrhagia to rule out iron deficiency anaemia (which occurs in about two-thirds of women with menorrhagia).
- Referral should be arranged if:
  - Physical examination identifies ascites and/or a pelvic or abdominal mass (which is not obviously due to uterine fibroids) — urgent referral.
  - The woman has a pelvic mass associated with any other features of cancer (such as unexplained bleeding or weight loss) — suspected cancer pathway referral (for an appointment w

weeks).
    - There are complications, such as compressive symptoms from large fibroids (for example dyspareunia, pelvic pain or discomfort, constipation, or urinary symptoms).
    - The woman has iron deficiency anaemia that has failed to respond to treatment and other causes have been excluded.
- Specialist referral should be considered:
    - For women with fibroids of 3 cm or more in diameter.
- For women with no identified pathology, fibroids less than 3 cm in diameter, or suspected or diagnosed adenomyosis:
    - A LNG-IUS should be considered as the first-line treatment.
    - If this is declined or unsuitable, pharmacological treatment should be considered: non-hormonal (tranexamic acid or a nonsteroidal anti-inflammatory drug) or hormonal (combined hormonal contraception or cyclical oral progestogens).
    - If treatment is unsuccessful, the woman declines pharmacological treatment, or symptoms are severe, referral to a specialist should be considered for further investigations and alternative treatment choices.
- Secondary care treatment options include pharmacological options not already tried, uterine artery embolization, and surgery (myomectomy, hysterectomy, or second-generation endometrial ablation).

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Have I got the right topic?

From age 12 years onwards (Female).

This CKS topic is largely based on the National Institute for Health and Care Excellence (NICE) guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)], the Institute of Obstetricians and Gynaecologists (IOG) guideline *The Investigation and management of management of menorrhagia* [IOG, 2015 (/menorrhagia#!references)], and the British Medical Journal (BMJ) best practice guides *Menorrhagia* [BMJ, 2017a (/menorrhagia#!references)] and *Dysfunctional uterine bleeding* [BMJ, 2017b (/menorrhagia#!references)].

This CKS topic covers the management of menorrhagia (heavy menstrual bleeding) in primary care.

This CKS topic does not cover the management of intermenstrual or irregular bleeding, postcoital bleeding, postmenopausal bleeding, or menopausal symptoms. It also does not cover in detail the secondary care management of menorrhagia.

There are separate CKS topics on Amenorrhoea (/amenorrhoea), Anaemia - iron deficiency (/anaemia-iron-deficiency), Dysmenorrhoea (/dysmenorrhoea), Endometriosis (/endometriosis), Gynaecological cancers - recognition and referral (/gynaecological-cancers-recognition-and-referral), Infertility (/infertility), and Menopause (/menopause).

The target audience for this CKS topic is healthcare professionals working within the NHS in the UK, and providing first contact or primary healthcare.

How up-to-date is this topic?

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- Changes
- Update

Goals and outcome measures

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- Goals
- Outcome measures
- Audit criteria
- QOF indicators
- QIPP - Options for local implementation
- NICE quality standards

Background information

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- Definition
- Prevalence
- Causes
- Complications

Diagnosis

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- Assessment
- Investigations for the cause of menorrhagia

Management

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- **Scenario: Management (/menorrhagia#!scenario):** covers the management of menorrhagia, including criteria for referral to secondary care.

Prescribing information

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Important aspects of prescribing information relevant to primary healthcare are covered in this section specifically for the drugs recommended in this CKS topic. For further information on cont dications, cautions, drug interactions, and adverse effects, see the electronic Medicines Compendiu

(http://www.medicines.org.uk/emc) (eMC) or the British National Formulary (https://bnf.nice.org.uk/) (BNF).

Supporting evidence

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This CKS topic is largely based on the National Institute for Health and Care Excellence (NICE) guideline *Heavy menstrual bleeding: assessment and management* [NICE, 2018 (/menorrhagia#!references)], the Institute of Obstetricians and Gynaecologists (IOG) guideline *The Investigation and management of management of menorrhagia* [IOG, 2015 (/menorrhagia#!references)], and the British Medical Journal (BMJ) best practice guides *Menorrhagia* [BMJ, 2017a (/menorrhagia#!references)] and *Dysfunctional uterine bleeding* [BMJ, 2017b (/menorrhagia#!references)].

How this topic was developed

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This section briefly describes the processes used in developing and updating this topic. Further details on the full process can be found in the About Us (http://cks.nice.org.uk/development) section and on the Clarity Informatics (https://clarity.co.uk/) website.

References

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- ABPI (2017a) *SPC for Tranexamic acid 500mg tablets.* Electronic Medicines Compendium. *Datapharm Communications Ltd.*. www.medicines.org.uk (http://www.medicines.org.uk) [Free Full-text (http://www.medicines.org.uk/emc/medicine/32824)]
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