

**NATIONAL INSTITUTE FOR HEALTH AND CARE
EXCELLENCE**

Guideline

Fertility problems: assessment and treatment

Draft for consultation, September 2025

This guideline covers diagnosing and treating health-related fertility problems. It aims to reduce variation in practice and improve the way fertility problems are investigated and managed.

This guideline will update NICE guideline CG156 (published February 2013).

Who is it for?

- Healthcare professionals
- Commissioners and providers of fertility services
- People with health-related fertility problems, their families and carers
- People who may require interventions to preserve fertility because they have a high risk of fertility problems because of clinical conditions or medical or surgical interventions, their families and carers

What does it include?

- the recommendations
- recommendations for research
- rationale and impact sections that explain why the committee made the 2026 recommendations and how they might affect services.
- the guideline context.

Information about how the guideline was developed is on the [guideline's webpage](#). This includes the evidence reviews, the scope, details of the committee and any declarations of interest.

New and updated recommendations

We are updating this guideline in stages. See [update information](#) for further details.

This is the first stage and includes the following new and existing recommendations:

- New recommendations are marked **[2026]** because we have reviewed the evidence, and new recommendations have been added. You are invited to comment on these recommendations.
- Existing recommendations are shaded in grey. We have not reviewed the evidence for these recommendations and cannot accept comments on them. These recommendations are dated **[2004]** or **[2013]**, which is the date that the evidence was last reviewed. We have reviewed the wording of the existing recommendations and, in some cases, we have made wording changes for clarification. These are marked **[2004, amended 2026]** or **[2013, amended 2026]**.

You are also invited to comment on recommendations that we propose to delete from the 2013 guideline.

See [update information](#) for a full explanation.

Full details of the evidence and the committee's discussion on the **[2026]** recommendations are in the [evidence reviews](#). Evidence for the **[2004]** and **[2013]** recommendations are in the [full version](#) of the 2013 guideline.

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1 Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in [NICE's information on making decisions about 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.

Healthcare professionals should follow our general guidelines for people delivering care:

- [Patient experience in adult NHS services](#)
- [Shared decision making](#)
- [Medicines adherence](#)
- [Medicines optimisation](#)
- [Multimorbidity](#)

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3 The recommendations are for people who:

- 4 • have health-related fertility problems **or**
- 5 • may require interventions to preserve fertility because they have a high risk of
- 6 fertility problems because of clinical conditions, or medical or surgical
- 7 interventions.

8 People with health-related fertility problems are those who:

- 9 • have a known clinical cause of infertility **or**
- 10 • do not achieve a pregnancy:
- 11 – after 12 months of regular unprotected sexual intercourse **or**
- 12 – after 6 cycles of artificial insemination.

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The guideline covers all people seeking assessment and treatment of health-related fertility problems who meet these criteria, irrespective of their sexual orientation, partnership status or gender identity.

1.1 Principles of care

Providing information

1.1.1 See couples who experience problems in conceiving together because both partners are affected by decisions surrounding investigation and treatment. **[2004]**

1.1.2 Ensure that people have the opportunity to make informed decisions about their care and treatment via access to evidence-based information. Recognise these choices as an integral part of the decision-making process. Supplement verbal information with written or online information, for example, information on the [Human Fertilisation and Embryology Authority \(HFEA\) website](#). **[2004, amended 2026]**

1.1.3 Provide information about care and treatment options in a format that is accessible to people who have additional needs, such as people with physical, cognitive or sensory disabilities, and people who do not speak or read English. **[2004]**

Psychological effects of fertility problems

1.1.4 When couples have fertility problems, inform both partners that stress in either or both partners can affect the couple's relationship and is likely to reduce libido and frequency of intercourse, which can contribute to the fertility problems. **[2004]**

1.1.5 Inform people who experience fertility problems that they may find it helpful to contact a [peer group or other relevant organisation for support](#). **[2004, amended 2026]**

1.1.6 Offer counselling to people who experience fertility problems because fertility problems themselves, and the investigation and treatment of fertility problems, can cause psychological stress. **[2004]**

1.1.7 Offer counselling before, during and after investigation and treatment, irrespective of the outcome of these procedures. **[2004]**

1.1.8 Counselling should be provided by someone who is not directly involved in the management of the individual's and/or couple's fertility problems. **[2004]**

Generalist and specialist care

1.1.9 People who experience fertility problems should be treated by a specialist team because this is likely to improve the effectiveness and efficiency of treatment and is known to improve people's satisfaction with treatment. **[2004]**

1.2 Initial advice to people concerned about delays in conception

Chance of conception

1.2.1 Inform people who are concerned about their fertility that over 80% of heterosexual couples in the general population will conceive within 1 year if:

- the woman is aged under 40 years **and**
- they do not use contraception and have regular vaginal sexual intercourse.

Of those who do not conceive in the first year, about half will do so in the second year (cumulative pregnancy rate over 90%). **[2004]**

1.2.2 Inform people who are using artificial insemination to conceive and who are concerned about their fertility that:

- over **55%** of women aged under 40 years will conceive within 6 cycles of intrauterine insemination (IUI)
- of those who do not conceive within 6 cycles of IUI, about half will do so with a further 6 cycles (cumulative pregnancy rate over **79%**). **[2013, amended 2026]**

1.2.3 Inform people who are concerned about their fertility that female fertility and (to a lesser extent) male fertility declines with age. See figure 1. [2013, amended 2026]

Figure 1 The effect of maternal age on pregnancy rate

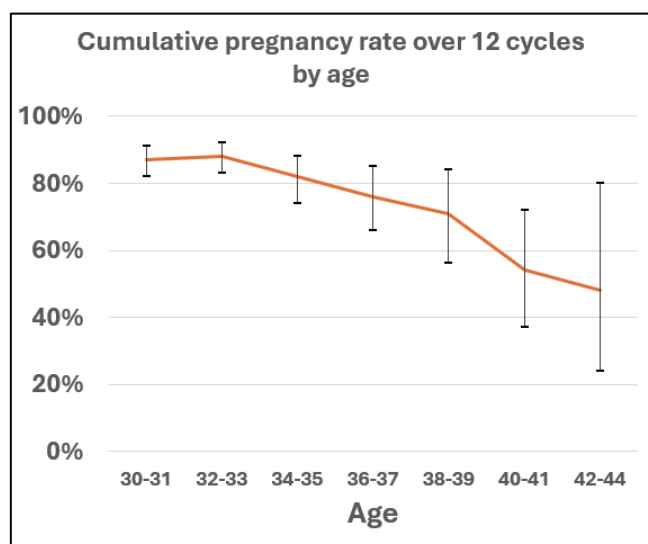


Figure based on data reported in Steiner and Jukic 2016, a prospective cohort study including women aged 30 to 44 years with no known fertility problems showing cumulative pregnancy rate (with 95% confidence interval) over 12 menstrual cycles of attempting to conceive spontaneously.

1.2.4 Discuss the chances of conception with people concerned about their fertility who are:

- having unprotected vaginal sexual intercourse (see table 1) or
- using artificial insemination (see table 2). [2013, amended 2026]

Table 1 Cumulative probability of conceiving a clinical pregnancy by the number of menstrual cycles – sexual intercourse

Maternal age	Pregnant after 1 year/12 cycles	Pregnant after 2 years/24 cycles
19 to 26 years	92%	98%
27 to 29 years	87%	95%
30 to 34 years	86%	94%
35 to 39 years	82%	90%

Cumulative probability of conceiving a clinical pregnancy by the number of menstrual cycles attempting to conceive in different age categories (assuming vaginal intercourse occurs twice per week; reproduced with permission: Dunson DB, Baird DD, Colombo B [2004]. Increased infertility with age in men and women. Obstetrics and Gynecology 103: 51–6).

Table 2 Cumulative probability of conceiving a clinical pregnancy by the number of cycles of insemination – intracervical insemination (ICI) and intrauterine insemination (IUI)

Maternal age	Intracervical insemination (ICI) using thawed semen – 6 cycles (Schwartz 1982)	ICI using thawed semen – 12 cycles (Schwartz 1982)
Under 30 years	50%	70%
30 to 34 years	43%	62%
Over 34 years	33%	54%
Maternal age	ICI using fresh semen – 6 cycles (Zaadstra 1991)	ICI using fresh semen – 12 cycles (Zaadstra 1991)
Under 31 years	58%	76%
31 to 35 years	50%	71%
Over 35 years	39%	55%
Maternal age	Intrauterine insemination (IUI) using thawed semen – 6 cycles (HFEA data 2015 to 2019 ^a)	IUI using thawed semen – 12 cycles (HFEA data 2015 to 2019 ^a)
Under 35 years	69%	93%
35 to 39 years	55%	79%

^a Data for IUI is based on donor insemination and was obtained from the HFEA through personal communication. Pregnancy rates for IUI for people with health-related fertility problems may be lower than the rates for donor insemination. The percentages describe Kaplan-Meier estimators based on the recorded pregnancy rate for patients in their Nth cycle of donor insemination. The estimates assume that all patients who suspended their treatment before completing 6/12 donor insemination cycles did so for non-medical reasons. This data includes all patients beginning donor insemination treatment between 2015–19 (data from 2019 is preliminary). Less than 2% of donor insemination patients completed 12 cycles of treatment, meaning pregnancy rates in later cycles are based on small numbers. One centre was excluded due to data reporting issues.

Frequency and timing of sexual intercourse or artificial insemination

1.2.5 Inform people who are concerned about their fertility that vaginal sexual intercourse every 2 to 3 days optimises the chance of pregnancy. **[2004]**

1.2.6 People who are using artificial insemination to conceive should have their insemination timed around ovulation. **[2013]**

Alcohol consumption

1.2.7 Inform women, trans men and non-binary people with female reproductive organs who are trying to become pregnant that drinking no more than 1 or 2 units of alcohol once or twice per week and avoiding episodes of

intoxication reduces the risk of harming a developing fetus. Advise them that, according to the [Chief Medical Officer's alcohol guidance](#), the safest approach is to avoid alcohol altogether. [2004, amended 2026]

1.2.8 Inform men, trans women and non-binary people with male reproductive organs that:

- excessive alcohol intake is detrimental to semen quality
- drinking within the limits of the weekly drinking guidance in the [UK Chief Medical Officer's low risk drinking guidance](#) (14 units per week), if spread across several days, for example up to 2 units per day, is unlikely to affect their semen quality. [2004, amended 2026]

Smoking

1.2.9 Inform women, trans men and non-binary people with female reproductive organs who smoke that this is likely to reduce their fertility. [2004]

1.2.10 Inform women, trans men and non-binary people with female reproductive organs that passive smoking is likely to affect their chance of conceiving. [2004]

1.2.11 Inform men, trans women and non-binary people with male reproductive organs who smoke that there is an association between smoking and reduced semen quality (although the impact of this on male fertility is uncertain), and that stopping smoking will improve their general health. [2004]

1.2.12 Encourage and support people to stop smoking as advised in the [NICE guideline on tobacco: preventing uptake, promoting quitting and treating dependence](#). [2026]

Caffeinated beverages

1.2.13 Inform people who are concerned about their fertility that there is no consistent evidence of an association between consumption of caffeinated beverages (tea, coffee, energy drinks and colas) and fertility problems. [2004, amended 2026]

Obesity

1.2.14 Inform women, trans men and non-binary people with female reproductive organs who have a body mass index (BMI) of 30 kg/m² or over:

- that they are likely to take longer to conceive **and**
- that if they are not ovulating, that losing weight is likely to increase their chance of conception. **[2004]**

1.2.15 Inform women, trans men and non-binary people with female reproductive organs that participating in a group programme involving exercise and dietary advice leads to more pregnancies than weight loss advice alone. **[2004]**

1.2.16 Inform men, trans women and non-binary people with male reproductive organs who have a BMI of 30 kg/m² or over that they have an increased risk of reduced fertility. **[2004]**

Low body weight

1.2.17 Advise women, trans men and non-binary people with female reproductive organs who have a BMI of less than 18.5 kg/m² and who have irregular menstruation or are not menstruating that increasing body weight is likely to improve their chance of conception. **[2004, amended 2026]**

Tight underwear

1.2.18 Inform men, trans women and non-binary people with male reproductive organs that there is an association between elevated scrotal temperature and reduced semen quality, but that it is uncertain whether wearing loose-fitting underwear improves fertility. **[2004]**

Occupation

1.2.19 Some occupations involve exposure to hazards that can reduce fertility. Ask about the occupation of people who are concerned about their fertility, and if necessary, direct them to appropriate advice. **[2004, amended 2026]**

Prescribed, over-the-counter and recreational drug use

1.2.20 A number of prescription, over-the-counter and recreational drugs (including androgenic compounds such as anabolic steroids) interfere with fertility. Ask people who are concerned about their fertility if they are taking any prescription or over-the-counter medicines or recreational drugs, and offer appropriate advice. [2004, amended 2026]

Complementary therapy

1.2.21 Inform people who are concerned about their fertility that the effectiveness of complementary therapies for fertility problems has not been properly evaluated, and that further research is needed before such interventions can be recommended. [2004]

Folic acid supplementation

1.2.22 For advice on folic acid supplementation, see the [NICE guideline on maternal and child nutrition](#). [2004, amended 2026]

Defining infertility and initial assessment

1.2.23 Offer an initial assessment for people who are concerned about delays in conception. Ask about lifestyle and sexual history to identify people who are less likely to conceive. [2004]

1.2.24 Offer an initial consultation to discuss the options for attempting conception to people who are unable to, or would find it very difficult to, have vaginal intercourse. [2013]

1.2.25 The environment in which investigation of fertility problems takes place should enable people to discuss sensitive issues such as sexual abuse. [2004]

1.2.26 Healthcare professionals should define infertility in practice as the period of time people have been trying to conceive without success after which formal investigation is justified and possible treatment implemented. [2013]

1.2.27 If a woman, trans man or non-binary person with female reproductive organs of reproductive age has not conceived after 1 year of unprotected vaginal sexual intercourse, in the absence of any [suspected or known clinical cause of infertility](#), offer both partners further clinical assessment and investigation. **[2013, amended 2026]**

1.2.28 If a woman, trans man or non-binary person with female reproductive organs is using artificial insemination to conceive, offer further clinical assessment and investigation if they have not conceived after 6 cycles of insemination, in the absence of any [suspected or](#) known clinical cause of infertility. Where this is using partner sperm, the referral for clinical assessment and investigation should include her partner. **[2013, amended 2026]**

1.2.29 If a miscarriage occurred during the 1 year of unprotected vaginal sexual intercourse or during the 6 cycles of insemination (see recommendations 1.2.27 and 1.2.28), still offer further clinical assessment and investigation after the initial 1 year of unprotected intercourse or 6 cycles of insemination. Do not wait for a further 1 year of unprotected intercourse or expect 6 more cycles of insemination following the miscarriage. **[2026]**

For a short explanation of why the committee made the 2026 recommendation and how it might affect practice, see the [rationale and impact section on miscarriage when trying to conceive](#).

1.2.30 Offer an earlier referral for specialist consultation to discuss the options for attempting conception, further assessment and appropriate treatment where:

- the person trying to become pregnant is aged 36 years or over
- there is a known or suspected clinical cause of infertility or a history of predisposing factors for infertility. **[2013]**

- 1.2.31 Offer early fertility specialist referral where treatment is planned that may result in infertility (such as treatment for cancer). **[2004]**
- 1.2.32 Ensure appropriate advice is provided to people who have chronic viral infections such as hepatitis B, hepatitis C or HIV, and have concerns about their fertility. See the [section on viral transmission](#). **[2004, amended 2026]**

1.3 Investigation of fertility problems and management strategies

Semen analysis

1.3.1 Compare the results of semen analysis conducted as part of an initial assessment with the following World Health Organization (WHO) reference values (see the [WHO laboratory manual for the examination and processing of human semen](#)):

- semen volume: 1.4 ml or more (95% confidence interval [CI] 1.3 to 1.5)
- pH: 7.2 or more
- sperm concentration: 16 million spermatozoa per ml or more (95% CI 15 to 18)
- total sperm number: 39 million spermatozoa per ejaculate or more (95% CI 35 to 40)
- total motility (percentage of progressive motility and non-progressive motility): 42% or more motile (95% CI 40 to 43) or 30% or more with progressive motility (95% CI 29 to 31)
- vitality: 54% or more live spermatozoa (95% CI 50 to 56)
- sperm morphology (percentage of normal forms): 4% or more (95% CI 3.9 to 4.0). **[2004, amended 2026]**

Please note the reference ranges are only valid for the semen analysis tests outlined by the World Health Organization.

1.3.2 Do not offer routine testing for antisperm antibodies. **[2004]**

- 1 1.3.3 If the result of the first semen analysis is abnormal, offer a repeat
2 confirmatory test. **[2004]**
- 3 1.3.4 Undertake repeat confirmatory tests ideally 3 months after the initial
4 analysis to allow time for the cycle of spermatozoa formation to be
5 completed. However, if a gross spermatozoa deficiency (azoospermia or
6 severe oligozoospermia) has been detected, undertake the repeat test as
7 soon as possible. **[2004]**
- 8 1.3.5 Offer a physical examination of the scrotum and testes in men, trans
9 women and non-binary people with male reproductive organs who have 2
10 or more abnormal semen analyses. **[2026]**

11 **Sperm DNA integrity (fragmentation) testing**

- 12 1.3.6 Do not carry out testing for sperm DNA integrity (fragmentation). **[2026]**

13 **Y chromosome microdeletion testing**

- 14 1.3.7 Test for Y chromosome microdeletion in men, trans women and
15 non-binary people with male reproductive organs who have idiopathic
16 azoospermia (see [recommendation 1.4.8](#)). **[2026]**

17 **Cystic fibrosis transmembrane conductance regulator**

- 18 1.3.8 Test for cystic fibrosis transmembrane conductance regulator genetic
19 mutations in men, trans women and non-binary people with male
20 reproductive organs who have idiopathic suspected obstructive
21 azoospermia and/or vasal abnormality on examination. **[2026]**

22 **Karyotype**

- 23 1.3.9 Test for karyotype abnormalities in men, trans women and non-binary
24 people with male reproductive organs who have idiopathic azoospermia.
25 **[2026]**
- 26 1.3.10 Consider testing for karyotype abnormalities in men, trans women and
27 non-binary people with male reproductive organs who have a very low
28 sperm count. **[2026]**

Genetic counselling

- 1.3.11 Offer appropriate genetic counselling for men, trans women and non-binary people who have a specific genetic defect associated with male factor infertility. **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on testing for male factor fertility problems](#).

Full details of the evidence and the committee's discussion are in:

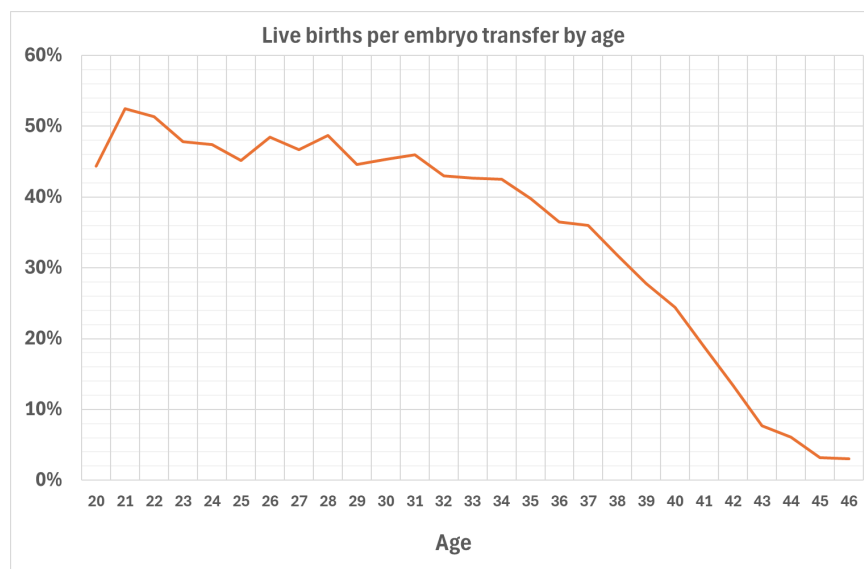
- [evidence review S: sperm DNA fragmentation](#)
- [evidence review T: Y chromosome microdeletion](#).

Post-coital testing of cervical mucus

- 1.3.12 Do not routinely use post-coital testing of cervical mucus in the investigation of fertility problems because it has no predictive value on pregnancy rate. **[2004]**

Ovarian reserve testing

- 1.3.13 Use maternal age as an initial predictor of the overall chance of becoming pregnant through spontaneous conception (see [figure 1 on the effect of maternal age on pregnancy rate](#)) or with IVF (see [figure 2 on in vitro fertilisation \[IVF\] success in terms of live births per embryo transfer by age](#)). **[2013, amended 2026]**

Figure 2 IVF success in terms of live births per embryo transfer by age

(HFEA data from 2017 to 2018)

The vertical axis shows the percentage of live births per embryo transfer; the horizontal axis shows age at treatment. Data obtained from the HFEA through personal communication. This data includes fresh embryo transfer IVF and ICSI cycles begun in 2017 and 2018. Cycles using donor eggs, PGT-A/M/SR cycles, and surrogacy cycles have been excluded. Cycles with missing embryo transfer, pregnancy or outcome data have been excluded. An embryo transfer refers to an event where 1 or more embryos were transferred, rather than the total number of embryos transferred. One centre was excluded due to data reporting issues.

Abbreviations: ICSI, intracytoplasmic sperm injection; PGT-A/M/SR, pre-implantation genetic testing for aneuploidy, monogenic disorders and chromosomal structural rearrangements.

1.3.14 Do not use anti-Müllerian hormone (AMH) measurement alone as a predictor of clinical pregnancy through spontaneous conception. **[2026]**

1.3.15 Use AMH measurement or antral follicle count (AFC) as predictors of ovarian response to inform clinical decision making and patient counselling about the likelihood of live birth following assisted conception. **[2026]**

1.3.16 Do not use follicle-stimulating hormone (FSH) measurement as a predictor of ovarian response or outcome of assisted conception. **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on ovarian reserve testing](#).

Full details of the evidence and the committee's discussion are in [evidence review A: ovarian reserve testing](#).

1 Regularity of menstrual cycles

- 1.3.17 Ask women, trans men and non-binary people with female reproductive organs who are concerned about their fertility about the frequency and regularity of their menstrual cycles, and reassure them that if they have regular monthly menstrual cycles, they are likely to be ovulating. **[2004]**
- 1.3.18 Offer women, trans men and non-binary people with female reproductive organs who are undergoing investigations for infertility a blood test to measure serum progesterone in the mid-luteal phase of their cycle (day 21 of a 28-day cycle) to confirm ovulation even if they have regular menstrual cycles. **[2013]**
- 1.3.19 Offer women, trans men and non-binary people with female reproductive organs with prolonged irregular menstrual cycles a blood test to measure serum progesterone. Depending on the timing of menstrual periods, this test may need to be conducted later in the cycle (for example, day 28 of a 35-day cycle) and repeated weekly thereafter until the next menstrual cycle starts. **[2004]**
- 1.3.20 Do not use basal body temperature charts to confirm ovulation because they do not reliably predict ovulation. **[2004]**
- 1.3.21 Offer women, trans men and non-binary people with female reproductive organs with irregular menstrual cycles a blood test to measure serum gonadotrophins (FSH and luteinising hormone). **[2004]**

22 Prolactin measurement

- 1.3.22 Do not offer women, trans men and non-binary people with female reproductive organs who are concerned about their fertility a blood test to measure prolactin. Only offer this test to those with an ovulatory disorder, galactorrhoea or a pituitary tumour. **[2004]**

Thyroid function tests

1.3.23 Only offer estimation of thyroid function to women, trans men and non-binary people with female reproductive organs with possible fertility problems if they have symptoms of thyroid disease. **[2004]**

Subclinical hypothyroidism

The evidence was reviewed, and the committee made a [recommendation for research](#).

For a short explanation of why the committee only made a recommendation for research, see the [rationale and impact section on subclinical hypothyroidism](#).

Full details of the evidence and the committee's discussion are in [evidence review B: subclinical hypothyroidism](#).

Investigation of suspected tubal and uterine abnormalities

1.3.24 Offer women, trans men and non-binary people with female reproductive organs who are not known to have comorbidities (such as pelvic inflammatory disease, previous ectopic pregnancy or endometriosis) hysterosalpingography (HSG) to screen for tubal occlusion because this is a reliable test for ruling out tubal occlusion, and it is less invasive and makes more efficient use of resources than laparoscopy. **[2004]**

1.3.25 Where appropriate expertise is available, consider screening for tubal occlusion using hysterosalpingo-contrast-ultrasonography because it is an effective alternative to HSG for women, trans men and non-binary people with female reproductive organs who are not known to have comorbidities. **[2004]**

1.3.26 Offer women, trans men and non-binary people with female reproductive organs who are thought to have comorbidities laparoscopy and dye so that tubal and other pelvic pathology can be assessed at the same time. **[2004]**

1.3.27 Do not offer hysteroscopy unless a uterine or endometrial abnormality is clinically suspected. [2004, amended 2026]

Testing for viral status

1.3.28 Offer people undergoing IVF treatment testing for HIV, hepatitis B and hepatitis C (for donor insemination, see recommendation 1.13.5). [2013]

1.3.29 Offer specialist advice and counselling and appropriate clinical management for people found to test positive for 1 or more of HIV, hepatitis B or hepatitis C. [2013]

Viral transmission

1.3.30 For couples where the partner with male reproductive organs is HIV positive, any decision about fertility management should be the result of discussions between the couple, a fertility specialist and an HIV specialist. [2013]

1.3.31 Advise couples where the partner with male reproductive organs is HIV positive that the risk of HIV transmission is negligible through unprotected vaginal sexual intercourse when all of the following criteria are met:

- they are compliant with highly active antiretroviral therapy (HAART)
- they have had a plasma viral load of less than 50 copies/ml for more than 6 months
- there are no other infections present
- unprotected intercourse is limited to the time of ovulation. [2013]

1.3.32 For couples where the partner with male reproductive organs is HIV positive and either is not compliant with HAART or the plasma viral load is 50 copies/ml or greater, offer sperm washing. [2013]

1.3.33 Inform couples that sperm washing reduces, but does not eliminate, the risk of HIV transmission. [2013]

1.3.34 For partners of people with hepatitis B, offer vaccination before starting fertility treatment. [2013]

- 1.3.35 Do not offer sperm washing as part of fertility treatment for men, trans women or non-binary people with male reproductive organs who have hepatitis B. **[2013]**
- 1.3.36 For couples where the partner with male reproductive organs has hepatitis C, any decision about fertility management should be the result of discussions between the couple, a fertility specialist and a hepatitis specialist. **[2013]**
- 1.3.37 Advise couples who want to conceive and where the partner with male reproductive organs has hepatitis C that the risk of transmission through unprotected sexual intercourse is thought to be low. **[2013]**
- 1.3.38 Men, trans women and non-binary people with male reproductive organs who have hepatitis C should discuss treatment options to eradicate the hepatitis C with their appropriate specialist before conception is considered. **[2013]**

Susceptibility to rubella

- 1.3.39 Offer women, trans men and non-binary people with female reproductive organs who are concerned about their fertility and have not been, or are uncertain if they have been, vaccinated for rubella, testing for their rubella status so that those who are susceptible to rubella can be offered vaccination. **[2013, amended 2026]**
- 1.3.40 Offer rubella vaccination to those who are susceptible and advise them not to become pregnant for at least 1 month following vaccination. **[2013, amended 2026]**

Cervical cancer screening

- 1.3.41 To avoid delay in fertility treatment, ask women, trans men and non-binary people with female reproductive organs who are concerned about their fertility about the timing and result of the most recent cervical smear test. Offer cervical screening in accordance with the national cervical screening programme guidance. **[2004]**

Screening for Chlamydia trachomatis

1.3.42 Before undergoing uterine instrumentation, offer women, trans men and non-binary people with female reproductive organs screening for Chlamydia trachomatis using an appropriately sensitive technique. **[2004]**

1.3.43 If the result of a test for Chlamydia trachomatis is positive, refer women, trans men and non-binary people with female reproductive organs and their sexual partners for appropriate management with treatment and contact tracing. **[2004]**

1.3.44 Consider prophylactic antibiotics before uterine instrumentation if screening has not been carried out. **[2004]**

Coeliac disease testing

1.3.45 Consider serological testing for coeliac disease in people with unexplained subfertility in line with the [section on recognition of coeliac disease in the NICE guideline on coeliac disease](#). **[2026]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on coeliac disease testing](#).

1.4 Medical and surgical management of male factor fertility problems

Medical management of male factor fertility problems

1.4.1 Offer gonadotrophin therapy to treat men, trans women and non-binary people with male reproductive organs who have hypogonadotropic hypogonadism. **[2026]**

1.4.2 Only consider gonadotrophin or anti-oestrogen therapy for men, trans women and non-binary people with male reproductive organs who have impaired semen parameters and no hypogonadotropic hypogonadism as part of a clinical trial. **[2026]**

- 1 1.4.3 Do not offer androgens to treat semen abnormalities. **[2026]**
- 2 1.4.4 Explain that the significance of antisperm antibodies is unclear and the
3 effectiveness of systemic corticosteroids is uncertain. **[2004]**
- 4 1.4.5 Do not offer antibiotic treatment to treat leukocytes in the semen unless
5 there is an identified infection because there is no evidence that this
6 improves pregnancy rates. **[2004]**
- 7 1.4.6 Do not offer supplements, antioxidants or medical treatments to improve
8 sperm DNA integrity (fragmentation). **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on medical management of male factor fertility problems](#).

Full details of the evidence and the committee's discussion are in:

- [evidence review U: hormone treatment for male factor fertility problems](#)
- [evidence review S: sperm DNA fragmentation](#)

9 **Surgical or radiological management of male factor fertility problems**

10 **Azoospermia**

- 11 1.4.7 Offer men, trans women and non-binary people with male reproductive
12 organs surgical correction or surgical sperm retrieval to treat obstructive
13 azoospermia. When deciding which treatment to offer, take into account
14 the following factors:
- 15 • female fertility factors (for example, age, ovarian reserve, tubal
16 patency and ovulatory status)
 - 17 • the obstructive interval if known (for example, the time from
18 vasectomy to seeking reversal)
 - 19 • the risks and benefits of the surgical intervention
 - 20 • the person's preference. **[2026]**

1 1.4.8 Offer surgical sperm retrieval to manage non-obstructive azoospermia.
2 **[2026]**

3 1.4.9 When carrying out surgical sperm retrieval for non-obstructive
4 azoospermia (see recommendation 1.4.8), consider microscopic testicular
5 sperm extraction (micro-TESE). **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on azoospermia](#).

Full details of the evidence and the committee's discussion are in:

- [evidence review W: surgical interventions for obstructive azoospermia](#)
- [evidence review Y: surgical sperm retrieval techniques](#).

6 **Y chromosome microdeletions**

7 1.4.10 Do not offer surgical sperm retrieval in the presence of Y chromosome
8 AZF a or b microdeletion. **[2026]**

For a short explanation of why the committee made the 2026 recommendation and how it might affect practice, see the [rationale and impact section on Y chromosome microdeletions](#).

Full details of the evidence and the committee's discussion are in [evidence review T: Y chromosome microdeletion](#).

9 **Reduced sperm DNA integrity**

10 1.4.11 Do not offer surgical sperm retrieval as a way to improve outcomes for
11 men, trans women and non-binary people with male reproductive organs
12 who have non-azoospermia and who have reduced sperm DNA integrity
13 (elevated fragmentation levels). **[2026]**

For a short explanation of why the committee made the 2026 recommendation and how it might affect practice, see the [rationale and impact section on reduced sperm DNA integrity](#).

Full details of the evidence and the committee's discussion are in [evidence review S: sperm DNA fragmentation](#).

1 **Varicocele**

2 1.4.12 Consider radiological or surgical treatment (taking into account female
3 fertility factors) for men, trans women and non-binary people with male
4 reproductive organs who have varicocele detected on clinical
5 examination, and who:

- 6 • are trying to conceive spontaneously **and**
- 7 • have reduced semen parameters. **[2026]**

For a short explanation of why the committee made the 2026 recommendation and how it might affect practice, see the [rationale and impact section on varicocele](#).

Full details of the evidence and the committee's discussion are in [evidence review X: treatments for varicocele](#).

8 **Management of ejaculatory failure**

9 1.4.13 For men, trans women and non-binary people with male reproductive
10 organs who have ejaculatory failure, identify the cause to determine the
11 most appropriate and least invasive method of managing the issue. **[2026]**

For a short explanation of why the committee made the 2026 recommendation and how it might affect practice, see the [rationale and impact section on management of ejaculatory failure](#).

Full details of the evidence and the committee's discussion are in [evidence review V: treatments for ejaculatory failure](#).

1.5 Ovulation disorders

Hypogonadotropic hypogonadism

1.5.1 Advise women, trans men and non-binary people with female reproductive organs who have hypogonadotropic hypogonadism and anovulatory infertility that they may improve their chance of regular ovulation, conception and an uncomplicated pregnancy by:

- increasing their body weight to reach a healthy weight if they have a BMI of less than 18.5 kg/m² **and/or**
- moderating their exercise levels if they undertake high levels of exercise.

Also see [NHS advice on healthy ways to gain weight](#). [2026]

1.5.2 Offer gonadotrophins with luteinising hormone activity or gonadotrophin-releasing hormone to induce ovulation in women, trans men and non-binary people with female reproductive organs who have hypogonadotropic hypogonadism. [2026]

For a short explanation of why the committee made these recommendations and how they might affect practice, see the [rationale and impact section on hypogonadotropic hypogonadism](#).

Full details of the evidence and the committee's discussion are in [evidence review E: ovulation induction strategies for hypogonadotropic hypogonadism](#).

Hypothalamic-pituitary-ovarian dysfunction (predominantly PCOS)

1.5.3 Advise women, trans men and non-binary people with female reproductive organs who have polycystic ovary syndrome (PCOS) and a BMI of 30 or over to lose weight (see the [section on obesity](#)). Inform them that this alone may restore ovulation, improve their response to ovulation induction agents, and have a positive impact on pregnancy outcomes. [2013]

1.5.4 Offer 1 of the following treatments for women, trans men and non-binary people with female reproductive organs who have PCOS, taking into

account potential adverse effects, ease and mode of use, BMI, and monitoring needed:

- clomifene citrate **or**
- metformin **or**
- a combination of the above. **[2013]**

In September 2025, this was an off-label use of metformin. See [NICE's information on prescribing medicines](#).

1.5.5 For women, trans men and non-binary people with female reproductive organs who are taking clomifene citrate, offer ultrasound monitoring during at least the first cycle of treatment to ensure that the dose they are taking minimises the risk of multiple pregnancy. **[2013]**

1.5.6 Do not continue treatment with clomifene citrate for longer than 6 months. **[2013]**

1.5.7 Give women, trans men and non-binary people with female reproductive organs who have been prescribed metformin information about the side effects associated with its use (such as nausea, vomiting and other gastrointestinal disturbances). **[2004]**

Hypothalamic-pituitary-ovarian dysfunction (predominantly PCOS) resistant to clomifene citrate

1.5.8 For women, trans men and non-binary people with female reproductive organs with PCOS that is resistant to clomifene citrate, consider 1 of the following second-line treatments, depending on clinical circumstances and the person's preference:

- laparoscopic ovarian drilling **or**
- combined treatment with clomifene citrate and metformin if not already offered as first-line treatment **or**
- gonadotrophins. **[2013]**

1.5.9 Do not offer a gonadotrophin-releasing hormone agonist concomitantly with a gonadotrophin for PCOS because this does not improve pregnancy rates and is associated with an increased risk of ovarian hyperstimulation. **[2004]**

1.5.10 Do not offer adjuvant growth hormone treatment with gonadotrophin-releasing hormone agonist and/or human menopausal gonadotrophin during ovulation induction for PCOS that does not respond to clomifene citrate because it does not improve pregnancy rates. **[2004]**

1.5.11 Do not offer pulsatile gonadotrophin-releasing hormone for clomifene citrate-resistant PCOS outside a clinical trial because its effectiveness is uncertain. **[2004]**

Ovulatory disorders due to hyperprolactinaemia

1.5.12 Offer cabergoline to treat ovulatory disorders due to hyperprolactinaemia. **[2026]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on ovulatory disorders due to hyperprolactinaemia](#).

Full details of the evidence and the committee's discussion are in [evidence review F: cabergoline for hyperprolactinaemia](#).

Monitoring ovulation induction during gonadotrophin therapy

1.5.13 Inform women, trans men and non-binary people with female reproductive organs who are offered ovulation induction with gonadotrophins about the risk of multiple pregnancy and ovarian hyperstimulation before starting treatment. **[2004]**

1.5.14 Use ovarian ultrasound monitoring to measure follicular size and number as an integral part of gonadotrophin therapy, to reduce the risk of multiple pregnancy and ovarian hyperstimulation. **[2004]**

1 **1.6 Tubal and uterine surgery**

2 **Tubal surgery for mild tubal disease**

- 3 1.6.1 Consider tubal surgery as a treatment option for mild tubal disease, in
4 centres where appropriate expertise is available. **[2026]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on tubal surgery for mild tubal disease](#).

Full details of the evidence and the committee's discussion are in [evidence review G: tubal surgery](#).

5 **Tubal catheterisation**

- 6 1.6.2 Consider fallopian tube catheterisation by hysteroscopic or radiological
7 guidance to treat subfertility due to proximal tube obstruction, after
8 discussing the risks and benefits of other options, including IVF. **[2026]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on tubal catheterisation](#).

Full details of the evidence and the committee's discussion are in [evidence review I: tubal catheterisation](#).

9 **Endometriosis**

- 10 For recommendations on endometriosis, see the [section on management if fertility is](#)
11 [a priority in the NICE guideline on endometriosis](#).

12 **Surgery for hydrosalpinges before IVF**

- 13 1.6.3 Offer laparoscopic salpingectomy or tubal occlusion to treat
14 hydrosalpinges before IVF. **[2026]**

- 1.6.4 Consider aspiration to treat hydrosalpinges, close to the time of oocyte retrieval, if there is a high risk of complications from laparoscopic surgery. **[2026]**

For a short explanation of why the committee made these recommendations and how they might affect practice, see the [rationale and impact section on surgery for hydrosalpinges before IVF](#).

Full details of the evidence and the committee's discussion are in [evidence review H: surgery for hydrosalpinges before IVF](#).

Uterine surgery

- 1.6.5 Offer hysteroscopic adhesiolysis for women, trans men and non-binary people with amenorrhoea who are found to have intrauterine adhesions because this is likely to restore menstruation and improve the chance of pregnancy. **[2004]**

1.7 Unstimulated intrauterine insemination

- 1.7.1 Offer 12 cycles of unstimulated IUI (providing there are no contraindications) as a treatment option before considering IVF for:

- people who are unable to, or would find it very difficult to, have vaginal intercourse because of a clinically diagnosed physical disability or psychosexual problem who are using partner or donor sperm
- people with conditions that require specific consideration in relation to methods of conception (for example, after sperm washing). **[2013, amended 2026]**

- 1.7.2 Offer 6 cycles of unstimulated IUI (providing there are no contraindications) for people who have not conceived after 6 cycles of donor insemination (see recommendation 1.2.28) before considering IVF. **[2013, amended 2026]**

1.8 Unexplained fertility problems, mild endometriosis and mild male factor fertility problems in people trying to conceive through unprotected vaginal sexual intercourse

1.8.1 Advise people with unexplained fertility problems, mild endometriosis or mild male factor fertility problems who are having regular unprotected vaginal sexual intercourse to try to conceive for a total of 2 years before treatment. [2013, amended 2026]

1.8.2 Do not offer ovarian stimulation as a stand-alone treatment for unexplained fertility problems, mild endometriosis or [mild male factor fertility problems](#). [2026]

1.8.3 For people with unexplained fertility problems, mild endometriosis or mild male factor fertility problems who have tried to conceive for 2 years through regular unprotected vaginal sexual intercourse, discuss the treatment options, including the benefits, risks and their individual preferences and:

- before IVF treatment, consider up to 4 cycles of IUI with ovarian stimulation using gonadotrophins **or**
- offer IVF treatment ([see the section on access criteria for IVF](#)). [2026]

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on unexplained fertility problems, mild endometriosis and mild male factor fertility problems in people trying to conceive through unprotected vaginal sexual intercourse](#).

Full details of the evidence and the committee's discussion are in [evidence review K: assisted reproduction techniques for people with unexplained fertility problems, mild endometriosis, mild male factor fertility problems](#).

1.9 Access criteria for IVF

1.9.1 When considering IVF as a treatment option for people with fertility problems, discuss the risks and benefits of IVF in accordance with the current [HFEA Code of Practice](#). [2013]

1.9.2 Take ovarian reserve into account when discussing the option of IVF treatment (see [recommendation 1.3.15](#)). [2026]

1.9.3 Offer IVF treatment for people under 42 years if:

- there is a diagnosed cause of infertility, for example, severe endometriosis, tubal obstruction, anovulation with failure of ovulation induction, or severe male factor fertility problems **or**
- they have a condition that reduces the likelihood of spontaneous conception (for example, mild endometriosis or mild male factor fertility problems) and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without IUI (see [recommendation 1.8.3](#)) **or**
- they have unexplained fertility problems and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without IUI (see [recommendation 1.8.3](#)) **or**
- they have not spontaneously conceived after 12 cycles of artificial insemination. [2026]

1.9.4 If a person is under 40 years and meets the criteria in recommendation 1.9.3, offer an initial 3 full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not offer any more cycles. [2026]

1.9.5 If a person is under 40 years and has not conceived after 3 full cycles of IVF treatment:

- discuss the probability of success and the implications of more treatment and
 - consider up to 3 further full cycles of IVF treatment.
- If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not consider any more cycles. [2026]

1.9.6 For those under 40 years, any previous full IVF cycle, whether self- or NHS-funded, should count towards the total **number of** full cycles that should be offered by the NHS. **Previous self-funded IVF treatment should not preclude NHS-funded IVF treatment. [2013, amended 2026]**

1.9.7 If a person is 40 or 41 years, meets the criteria in recommendation 1.9.3 and has not had IVF treatment before, offer 1 full cycle of IVF treatment. **[2026]**

1.9.8 Inform people that normally, a [full cycle](#) of IVF treatment, with or without intracytoplasmic sperm injection (ICSI), should comprise 1 episode of ovarian stimulation and the transfer of any resultant fresh and frozen embryo(s). **[2013]**

1.9.9 Healthcare providers should define a cancelled IVF cycle as one where an egg collection procedure is not undertaken. Cancelled cycles due to low ovarian response should be taken into account when considering if further IVF treatment is suitable. **[2013]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on access criteria for IVF](#).

Full details of the evidence and the committee's discussion are in:

- [evidence review A: ovarian reserve testing](#)
- [evidence review J: fertility prediction models and IVF access](#).

1.10 Procedures used during IVF

Pre-treatment in IVF

1.10.1 Advise women, trans men and non-binary people with female reproductive organs that using pre-treatment (with either the oral contraceptive pill or a progestogen) as part of IVF does not affect their chances of having a live birth. **[2013]**

1.10.2 Consider pre-treatment in order to schedule IVF treatment for women, trans men and non-binary people with female reproductive organs who are not undergoing long down-regulation protocols. **[2013]**

1.10.3 Do not offer endometrial scratch as a pre-treatment means of improving the outcome of IVF. **[2026]**

1.10.4 Do not offer hysteroscopy as a pre-treatment means of improving the outcome of IVF. If uterine or endometrial abnormalities are suspected, see [recommendation 1.3.27](#). **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on pre-treatment in IVF](#).

Full details of the evidence and the committee's discussion are in:

- [evidence review P: endometrial scratch as a treatment add-on](#)
- [evidence review C: screening hysteroscopy](#).

Endometrial receptivity testing

1.10.5 Do not offer endometrial receptivity testing as a treatment add-on for embryo transfer. This includes both gene expression analysis (for example, endometrial receptivity array) and microbiological analysis (for example, endometrial microbiome metagenomic analysis, analysis of infectious chronic endometritis). **[2026]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on endometrial receptivity testing](#).

Full details of the evidence and the committee's discussion are in [evidence review D: endometrial receptivity testing](#).

Immunological treatments

1.10.6 Do not use immunological agents, including intralipids, intravenous immunoglobulins or steroids (glucocorticoids), as part of fertility treatment.

[2026]

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on immunological treatments](#).

Full details of the evidence and the committee's discussion are in [evidence review Q: immune therapies as a treatment add-on](#).

Down-regulation and other regimens to avoid premature luteinising hormone surges in IVF

1.10.7 Use regimens to avoid premature luteinising hormone surges in gonadotrophin-stimulated IVF treatment cycles. **[2013]**

1.10.8 Use either gonadotrophin-releasing hormone agonist down-regulation or gonadotrophin-releasing hormone antagonists as part of gonadotrophin-stimulated IVF treatment cycles. **[2013]**

1.10.9 Only offer gonadotrophin-releasing hormone agonists if there is a low risk of ovarian hyperstimulation syndrome. **[2013]**

1.10.10 When using gonadotrophin-releasing hormone agonists as part of IVF treatment, use a long down-regulation protocol. **[2013]**

Controlled ovarian stimulation in IVF

1.10.11 Use ovarian stimulation as part of IVF treatment. **[2013]**

1.10.12 Use either urinary or recombinant gonadotrophins for ovarian stimulation as part of IVF treatment. **[2013]**

1.10.13 When using gonadotrophins for ovarian stimulation in IVF treatment:

- use an individualised starting dose of FSH, based on factors that predict success, such as:
 - age
 - BMI
 - presence of polycystic ovaries
 - ovarian reserve
- do not use a dosage of FSH of more than 450 IU/day. **[2013]**

1.10.14 Offer ultrasound monitoring (with or without oestradiol levels) for efficacy and safety throughout ovarian stimulation. **[2013]**

1.10.15 Provide information that clomifene citrate-stimulated and gonadotrophin-stimulated IVF cycles have higher pregnancy rates per cycle than [natural cycle IVF](#). **[2013]**

1.10.16 Do not offer natural cycle IVF treatment. **[2013]**

1.10.17 Do not use growth hormone or dehydroepiandrosterone (DHEA) as adjuvant treatment in IVF protocols. **[2013]**

Triggering ovulation in IVF

1.10.18 Offer human chorionic gonadotrophin (urinary or recombinant) to trigger ovulation in IVF treatment. **[2013]**

1.10.19 Offer ultrasound monitoring of ovarian response as an integral part of the IVF treatment cycle. **[2013]**

1.10.20 Clinics providing ovarian stimulation with gonadotrophins should have protocols in place for preventing, diagnosing and managing ovarian hyperstimulation syndrome. **[2004]**

Oocyte retrieval in IVF

1.10.21 Offer conscious sedation for transvaginal retrieval of oocytes because it is a safe and acceptable method of providing analgesia. **[2004]**

1.10.22 Do not offer follicle flushing before oocyte retrieval if there are at least 3 follicles, because this procedure does not increase the number of

1 oocytes retrieved or pregnancy rates, and it increases the duration of
2 oocyte retrieval and associated pain. **[2004]**

3 1.10.23 Do not offer assisted hatching, because it has not been shown to improve
4 pregnancy rates. **[2004]**

5 For recommendations on surgical sperm retrieval, see the section on [surgical or](#)
6 [radiological management of male factor fertility problems](#).

7 **Embryo selection strategies in IVF**

8 1.10.24 Do not offer pre-implantation genetic testing for aneuploidy (PGT-A) as
9 part of fertility treatment. **[2026]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the [rationale and impact section on embryo selection strategies in IVF](#).

Full details of the evidence and the committee's discussion are in:

- [evidence review N: pre-implantation genetic testing for aneuploidy as a treatment add-on](#)
- [evidence review O: embryo selection guided by continuous time-lapse sequence as a treatment add-on](#).

10 **Embryo transfer strategies in IVF**

11 1.10.25 Offer ultrasound-guided embryo transfer during IVF because this
12 improves pregnancy rates. **[2004]**

13 1.10.26 Replacement of embryos into a uterine cavity with an endometrium of less
14 than 5 mm thickness is unlikely to result in a pregnancy and is therefore
15 not recommended. **[2004]**

16 1.10.27 Provide information that bed rest of more than 20 minutes' duration
17 following embryo transfer does not improve the outcome of IVF treatment.
18 **[2004]**

1.10.28 Evaluate embryo quality, at both cleavage and blastocyst stages, according to the [Association of Reproductive and Clinical Scientists \(ARCS\) and UK National External Quality Assessment Service \(UK NEQAS\) Embryo Grading Scheme](#). **[2013, amended 2026]**

1.10.29 When considering the number of fresh or frozen embryos to transfer in IVF treatment:

- maternal age under 37 years:
 - in the first full IVF cycle, use single embryo transfer
 - in the second full IVF cycle, use single embryo transfer if 1 or more top-quality embryos are available; consider using 2 embryos if no top-quality embryos are available
 - in the third full IVF cycle, transfer no more than 2 embryos
- maternal age 37 to 39 years:
 - in the first and second full IVF cycles, use single embryo transfer if there are 1 or more top-quality embryos; consider double embryo transfer if there are no top-quality embryos
 - in the third full IVF cycle, transfer no more than 2 embryos
- maternal age 40 to 42 years, consider double embryo transfer. **[2013]**

1.10.30 If IVF treatment is with donor eggs, use an embryo transfer strategy that is based on the age of the donor. **[2013]**

1.10.31 Do not transfer more than 2 embryos during any 1 cycle of IVF treatment. **[2013]**

1.10.32 Where a top-quality blastocyst is available, use single embryo transfer. **[2013]**

1.10.33 When considering double embryo transfer, discuss the risks of multiple pregnancy associated with this strategy. **[2013]**

1.10.34 Offer cryopreservation to store any remaining good-quality embryos after embryo transfer. **[2013]**

1.10.35 Advise women, trans men and non-binary people with female reproductive organs who have regular ovulatory cycles that the likelihood of a live birth after replacement of frozen–thawed embryos is similar for embryos replaced during natural cycles and hormone-supplemented cycles. **[2013]**

Luteal phase support after IVF

1.10.36 Offer progesterone for luteal phase support after IVF treatment. **[2013]**

1.10.37 Do not routinely offer human chorionic gonadotrophin for luteal phase support after IVF treatment because of the increased likelihood of ovarian hyperstimulation syndrome. **[2013]**

1.10.38 Give information that the evidence does not support continuing any form of treatment for luteal phase support beyond 8 weeks of pregnancy. **[2013]**

1.11 Intracytoplasmic sperm injection (ICSI)

1.11.1 Offer ICSI for people using surgically retrieved sperm or frozen–thawed oocytes. **[2026]**

1.11.2 Consider ICSI for:

- men, trans women and non-binary people with male reproductive organs who have abnormal semen parameters, taking into account severity
- couples in whom a previous IVF treatment cycle has resulted in failed or very poor fertilisation. **[2026]**

1.11.3 Do not use ICSI for non-male factor fertility problems or for men, trans women and non-binary people with male reproductive organs who have normal semen parameters. **[2026]**

1.11.4 Do not use intracytoplasmic morphologically selected sperm injection (IMSI) as an adjunct to ICSI. **[2026]**

1.11.5 Do not use physiological intracytoplasmic sperm injection (PICSI) in preference to standard ICSI. **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on intracytoplasmic sperm injection](#).

Full details of the evidence and the committee's discussion are in:

- [evidence review L: intracytoplasmic sperm injection for non-male factor fertility problems](#)
- [evidence review M: advanced sperm selection techniques as a treatment add-on](#).

1.12 Donor insemination

Medical indications for donor insemination

1.12.1 The use of donor insemination is considered effective in managing fertility problems associated with the following conditions:

- obstructive azoospermia
 - non-obstructive azoospermia
 - severe in semen quality in couples who do not wish to undergo ICSI.
- [2004]**

1.12.2 Consider donor insemination in conditions such as:

- where there is a high risk of transmitting a genetic disorder to the offspring
- where there is a high risk of transmitting infectious disease via the semen to the child or maternal partner
- severe rhesus isoimmunisation. **[2004]**

Information and counselling

1.12.3 Offer couples information about the relative merits of ICSI and donor insemination in a context that allows equal access to both treatment options. **[2004]**

1.12.4 Offer sperm recipients and donors counselling from someone who is independent of the treatment unit regarding the implications of treatment in line with the [HFEA code of practice](#). [2004, amended 2026]

Screening of sperm donors

1.12.5 Units undertaking semen donor recruitment and the cryopreservation of donor spermatozoa for treatment purposes should follow the [UK guidelines for the medical and laboratory procurement and use of sperm, oocyte and embryo donors \(2019\)](#) describing the selection and screening of donors. [2004, amended 2026]

1.12.6 Offer all potential semen donors counselling from someone who is independent of the treatment unit regarding the implications for themselves and their genetic children, including any potential children resulting from donated semen. [2004]

Assessments for women, trans men and non-binary people with female reproductive organs

1.12.7 Before starting treatment by donor insemination (for conditions listed in the [section on indications for donor insemination](#)), it is important to confirm ovulation. Offer tubal assessment before treatment if there is a history is suggestive of tubal damage. [2004]

1.12.8 Offer tubal assessment after 3 cycles if treatment by donor insemination (for conditions listed in the [section on indications for donor insemination](#)) has been unsuccessful and there are no risk factors. [2004]

Intrauterine insemination versus intracervical insemination

1.12.9 Offer couples using donor sperm IUI in preference to intracervical insemination because it improves pregnancy rates. [2004]

Unstimulated versus stimulated donor insemination

1.12.10 Offer women, trans men and non-binary people with female reproductive organs who are ovulating regularly a minimum of 6 cycles of donor insemination (for conditions listed in the [section on indications for donor](#)

[insemination](#)) without ovarian stimulation to reduce the risk of multiple pregnancy and its consequences. [2004]

1.13 Oocyte donation

Medical indications for oocyte donation

1.13.1 The use of donor oocytes is considered effective in managing fertility problems associated with the following conditions:

- premature ovarian insufficiency
- gonadal dysgenesis, including Turner syndrome
- bilateral oophorectomy
- ovarian insufficiency following chemotherapy or radiotherapy
- certain cases of IVF treatment failure.

Also consider oocyte donation in certain cases where there is a high risk of transmitting a genetic disorder to the offspring. [2004]

Screening of oocyte donors

1.13.2 Before donation is undertaken, screen oocyte donors for both infectious and genetic diseases in accordance with the [UK guidelines for the medical and laboratory procurement and use of sperm, oocyte and embryo donors \(2019\)](#). [2004, amended 2026]

Oocyte donation and 'egg-sharing'

1.13.3 Offer oocyte donors information regarding the potential risks of ovarian stimulation and oocyte collection. [2004]

1.13.4 Offer oocyte recipients and donors counselling from someone who is independent of the treatment unit regarding the implications of treatment, in line with the [HFEA code of practice](#). [2004, amended 2026]

1.13.5 Counsel all people considering participation in an 'egg-sharing' scheme about its particular implications. [2004]

1.14 Fertility preservation for medical indications

1.14.1 Discuss fertility preservation as an option with people who are preparing for medical treatment, or have a medical condition, that is likely to impair their fertility. **[2026]**

1.14.2 For NHS-funded fertility preservation, do not apply the eligibility criteria used for conventional fertility treatment, including lower age limit. **[2013, amended 2026]**

1.14.3 Inform people considering fertility preservation that eligibility criteria for assisted conception in an NHS setting will apply when it comes to using stored material. **[2013, amended 2026]**

1.14.4 Offer sperm cryopreservation to men (and adolescent boys), trans women and non-binary people with male reproductive organs who are preparing for medical treatment, or have a medical condition, that is likely to make them infertile. **[2026]**

1.14.5 Offer oocyte or embryo cryopreservation (as appropriate) to women (and adolescent girls), trans men and non-binary people with female reproductive organs who are of reproductive age who are preparing for medical treatment, or have a medical condition, that is likely to make them infertile. **[2026]**

1.14.6 Consider ovarian tissue cryopreservation when oocyte or embryo cryopreservation is not feasible, for example, in girls or people with female reproductive organs before puberty. **[2026]**

1.14.7 Organise follow-ups at least every 5 years with people who have had their material preserved to determine whether or not there is a need to continue NHS-funded storage. Offer continued storage for people who remain at continued significant risk of infertility, in line with legislation on consent. **[2026]**

For a short explanation of why the committee made the 2026 recommendations and how they might affect practice, see the [rationale and impact section on fertility preservation for medical indications](#).

Full details of the evidence and the committee's discussion are in [evidence review R: fertility preservation](#).

1.15 Long-term safety of assisted reproductive technologies

Long-term health outcomes of ovulation induction and ovarian stimulation

1.15.1 Give people who are considering ovulation induction or ovarian stimulation up-to-date information about the long-term health outcomes of these treatments. **[2013]**

1.15.2 Inform people who are offered ovulation induction or ovarian stimulation that:

- no direct association has been found between these treatments and invasive cancer **and**
- no association has been found in the short to medium term between these treatments and adverse outcomes (including cancer) in children born from ovulation induction **and**
- information about long-term health outcomes in women and children is still awaited. **[2013]**

1.15.3 Limit the use of ovulation induction or ovarian stimulation agents to the lowest effective dose and duration of use. **[2013]**

Long-term health outcomes and safety of IVF

1.15.4 Give people who are considering IVF treatment, with or without ICSI, up-to-date information about the long-term health outcomes (including the consequences of multiple pregnancy) of these treatments. **[2013]**

1.15.5 Inform people that, while the absolute risks of long-term adverse outcomes of IVF treatment, with or without ICSI, are low, a small increased risk of borderline ovarian tumours cannot be excluded. **[2013]**

1.15.6 Inform people who are considering IVF treatment that the absolute risks of long-term adverse outcomes in children born as result of IVF are low. **[2013]**

1.15.7 Limit drugs used for controlled ovarian stimulation in IVF treatment to the lowest effective dose and duration of use. **[2013]**

Terms used in this guideline

This section defines terms that have been used in a particular way for this guideline. For other definitions, see the [NICE glossary](#) and the [Think Local, Act Personal Care and Support Jargon Buster](#).

Expectant management

A formal approach that encourages conception through unprotected vaginal intercourse. It involves supportively offering an individual or couple information and advice about the regularity and timing of intercourse and any lifestyle changes that might improve their chances of conceiving. It does not involve active clinical or therapeutic interventions.

Full cycle

This term is used to define a full in vitro fertilisation (IVF) treatment, which should include 1 episode of ovarian stimulation and the transfer of any resultant fresh and frozen embryo(s).

Suspected or known clinical cause of infertility

This includes history, symptoms and signs, for example:

- irregular or absent periods
- significant pelvic pain
- gynaecological condition such as endometriosis or chronic pelvic inflammatory disease

- 1 • history of undescended testes
- 2 • history of testicular cancer
- 3 • history of inguinal or scrotal surgery with atrophic testicle
- 4 • clinically significant varicocele
- 5 • history of orchitis including mumps orchitis (if occurred post-pubertally)
- 6 • any condition with loss of ejaculation
- 7 • history of chemotherapy or pelvic radiotherapy.

8 **Mild male factor fertility problems**

9 This term is sometimes used in practice and in the literature. However, no formally
10 recognised definition is currently available. In this guideline, we have used the term
11 as defined in the individual research studies.

12 **Natural cycle IVF**

13 An IVF procedure in which 1 or more oocytes are collected from the ovaries during a
14 spontaneous menstrual cycle without the use of drugs.

15 **Recommendations for research**

16 The guideline committee has made the following recommendations for research.

17 **Key recommendations for research**

18 **1 Treatments based on endometrial receptivity testing**

19 Do treatments for identified endometrial abnormalities related to the microbiome or
20 microbiological analysis (such as antibiotics to treat endometritis or microbiota
21 transplantation) improve reproductive outcomes for people undergoing assisted
22 reproduction? **[2026]**

For a short explanation of why the committee made this recommendation for research, see the [rationale and impact section on endometrial receptivity testing](#).

Full details of the evidence and the committee's discussion are in [evidence review D: endometrial receptivity testing](#).

1 **2 Subclinical hypothyroidism**

2 What are the benefits and harms of levothyroxine for the treatment of subclinical
3 hypothyroidism in women, trans men and non-binary people who are receiving
4 fertility treatment? **[2026]**

For a short explanation of why the committee made this recommendation for research, see the [rationale and impact section on subclinical hypothyroidism](#).

Full details of the evidence and the committee's discussion are in [evidence review B: subclinical hypothyroidism](#).

5 **3 Testicular tissue cryopreservation**

6 What is the safety and effectiveness of testicular tissue cryopreservation for fertility
7 preservation for prepubertal and peripubertal males undergoing medical treatment,
8 or have a medical condition, that is likely to impair their fertility? **[2026]**

For a short explanation of why the committee made this recommendation for research, see the [rationale and impact section on fertility preservation for medical indications](#).

Full details of the evidence and the committee's discussion are in [evidence review R: fertility preservation](#).

9 **4 Hormone treatments for male factor fertility problems**

10 What is the effectiveness of anti-oestrogens or gonadotrophins in men, trans women
11 and non-binary people with azoospermia or impaired or reduced semen parameters
12 (non-azoospermia) with normal/high FSH and low testosterone?

For a short explanation of why the committee made this recommendation for research, see the [rationale and impact section on medical management of male factor fertility problems](#).

Full details of the evidence and the committee's discussion are in [evidence review U: hormone treatment for male factor fertility problems](#).

1 **5 Treatment for varicocele**

2 What is the clinical and cost effectiveness of radiological, surgical and microsurgical
3 treatments for fertility problems associated with varicocele?

For a short explanation of why the committee made this recommendation for research, see the [rationale and impact section on varicocele](#).

Full details of the evidence and the committee's discussion are in [evidence review X: treatments for varicocele](#).

4

5 **Other recommendations for research**

6 **Expectant management before IVF**

7 What is the optimum period of [expectant management](#) for women, trans men and
8 non-binary people with female reproductive organs of different age groups before
9 invasive treatment such as in vitro fertilisation (IVF) is considered? **[2013]**

10 **Why this is important**

11 Where there is no known cause for infertility, expectant management increases the
12 cumulative chances of successful conception. However, the chances of a live birth
13 both by spontaneous conception and by using assisted reproductive technology
14 decline with advancing age because of decreasing ovarian reserve. If there were
15 better evidence, it might be possible to customise the period of expectant
16 management based on age, including longer periods of expectant management for
17 younger people.

18 **Long-term safety of ovarian stimulation and ovulation induction in**
19 **women, trans men and non-binary people**

20 Is there an association between ovulation induction or ovarian stimulation and
21 adverse long-term (over 20 years) effects in women? **[2013]**

22 **Why this is important**

23 People need to be reassured that it is safe to undergo ovulation induction and
24 ovarian stimulation, and that these interventions will not lead to significant long-term

health issues, especially ovarian malignancy. Both treatments are common in managing infertility. The use of ovarian stimulation in IVF is particularly important, as IVF is the final treatment option for most causes of infertility. During the course of the review for the 2013 guideline update, the guideline development group commented on the paucity of long-term research on the subject, despite the fact that the treatments have been established practice for over 30 years. The longest length of follow-up in the studies reviewed was 20 years, and the larger studies had shorter follow-up periods.

Long-term effects of IVF with or without ICSI in children

What are the long-term (over 20 years) effects of IVF with or without intracytoplasmic sperm injection (ICSI) in children in the UK? **[2013]**

Why this is important

This topic is important in informing patients, service providers and society at large about the potential long-term safety of assisted reproduction. Both IVF and ICSI involve manipulation of egg and sperm in the laboratory, with impacts on the development of the subsequent embryo. However, while the first successful live birth following IVF was over 30 years ago, there is relatively little long-term research on the subject. In the review undertaken in this guideline update, the longest length of follow-up in the studies reviewed was 20 years, and the larger studies had shorter follow-up periods.

Rationale and impact

These sections briefly explain why the committee made the recommendations and how they might affect services.

Miscarriage when trying to conceive

[Recommendation 1.2.29](#)

Why the committee made the recommendation

The committee were aware that some people have a miscarriage during the year that they are having unprotected vaginal sexual intercourse before being eligible to have investigations for infertility. They were also aware that in practice, this

sometimes means that people are made to restart the year of unprotected intercourse from the date of the miscarriage. The committee agreed that such decisions are unjustified and not in the spirit of the previous version of the guideline. They therefore agreed to make a new recommendation to clarify this issue and ensure that people do not have to restart the year of unprotected intercourse after having a miscarriage. The same principle also applies to people who use artificial insemination to conceive, where 6 cycles of insemination is expected before further clinical assessment and investigation.

How the recommendation might affect practice

The recommendation will standardise good practice and reduce variation in service provision. It will reduce unnecessary delays in access to clinical assessment and investigation for fertility problems in some areas for people who may be subfertile and experience a miscarriage.

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Testing for male factor fertility problems

[Recommendations 1.3.5 to 1.3.11](#)

Why the committee made the recommendations

The committee highlighted the variation in clinical practice in terms of investigations for male factor fertility problems. Based on their knowledge and experience, the committee agreed that a physical examination of the scrotum and testes is a simple and low-cost procedure. They also agreed that carrying out a physical examination of the scrotum and testes is an essential part of assessing male infertility if people have 2 or more abnormal semen analyses. It can help detect the underlying causes of semen abnormalities, such as varicocele and testicular cancer, and inform treatment.

The evidence on treating sperm DNA fragmentation did not show a convincing benefit. Without effective treatments and given that sperm DNA assays are expensive tests that can take weeks to get results from, the committee recommended against testing for sperm DNA integrity (fragmentation). The committee agreed that the link between elevated DNA fragmentation and subfertility

has not yet been established. It is also not clear which type of test and what threshold should be used for defining elevated DNA fragmentation. Given these uncertainties, testing for sperm DNA integrity is not appropriate.

According to the evidence and the committee's knowledge and experience, it is almost impossible to extract sperm through surgical sperm retrieval for people with Y chromosome AFZa and AFZb microdeletions. In order to avoid unnecessary surgical sperm retrieval with no chance of success, the committee agreed the importance of testing for Y chromosome microdeletion.

The committee also reviewed the 2004 recommendations around genetic testing before considering intracytoplasmic sperm injection (ICSI) for male factor fertility problems, and agreed the need for clearer guidance on tests for cystic fibrosis transmembrane conductance regulator genetic mutations, karyotype abnormalities and genetic counselling. The committee made recommendations based on consensus to clarify what to test and in whom, and reflect current best practice.

How the recommendations might affect practice

Not testing for DNA integrity (fragmentation) reflects current NHS practice.

There may be an increase in testing for Y chromosome microdeletions, but any cost should be offset by reduction in surgical sperm retrieval procedures where it is unlikely to be successful.

Changes to the recommendations on genetic testing will use resources more efficiently by clarifying the populations who should be tested for cystic fibrosis transmembrane conductance regulator genetic mutations and karyotype.

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Ovarian reserve testing

[Recommendations 1.3.14 to 1.3.16](#)

Why the committee made the recommendations

There was a lack of good-quality evidence showing any association between anti-Müllerian hormone (AMH) levels and spontaneous clinical pregnancy. The

committee agreed that measuring AMH levels should not be used to predict the chance of spontaneous conception.

There was moderate quality evidence of an association between AMH levels and rates of live births and clinical pregnancy after assisted conception, so the committee agreed that AMH could be used as a prognostic indicator for outcomes of assisted conception. Although there was less evidence for antral follicle count (AFC), the committee agreed that AFC has a similar ability to AMH to predict ovarian response in conjunction with assisted conception, and that overall, there was sufficient evidence to recommend using either AMH or AFC to form part of the clinical considerations regarding the best possible treatment regimen, and to aid individualised discussions about the chance of live birth following assisted conception.

There was evidence that follicle-stimulating hormone (FSH) levels do not predict clinical pregnancy or ovarian response.

How the recommendations might affect practice

The use of AMH or AFC in conjunction with assisted conception will likely be increased. Although FSH is now rarely used as an ovarian reserve marker, it is still occasionally offered as a cheaper alternative to an AMH test despite its lack of predictive ability, so the recommendations will change this practice.

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Subclinical hypothyroidism

Why the committee did not make recommendations

The committee looked for evidence on whether treating subclinical hypothyroidism would have an impact on fertility outcomes, but no evidence from randomised controlled trials was found. Subclinical hypothyroidism would not normally be picked up because it is asymptomatic; therefore, if treating it would be beneficial, people with fertility problems should also be screened for it. Taking into account the lack of evidence on treating subclinical hypothyroidism and the potential costs of unnecessary screening, the committee agreed that the 2004 recommendations

about not offering routine measurement of thyroid function to those without symptoms of thyroid disease is still valid. However, to address the lack of evidence and uncertainty about potential benefits or harms associated with treatment for subclinical hypothyroidism, the committee agreed to make a [recommendation for research on the benefits and harms of levothyroxine for the treatment of subclinical hypothyroidism in women, trans men and non-binary people who are receiving fertility treatment](#).

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Coeliac disease testing

[Recommendation 1.3.45](#)

Why the committee made the recommendation

The NICE guideline on coeliac disease has a recommendation relevant to people with unexplained subfertility so the committee agreed to cross-refer to it.

How the recommendation might affect practice

The recommendation already exists in the NICE guideline on coeliac disease, but it is not commonly done in practice within fertility services. Including it in the fertility problems guideline may lead to some increase in serological testing for coeliac disease.

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Medical management of male factor fertility problems

[Recommendations 1.4.1 to 1.4.3 and 1.4.6](#)

Why the committee made the recommendations

The committee agreed, based on their knowledge and experience, that replacement therapy with gonadotrophins is necessary to treat hypogonadotropic hypogonadism.

However, if azoospermia or non-azoospermia is not associated with hypogonadotropic hypogonadism, the effectiveness of treatment is less certain. There was some evidence of benefit for anti-oestrogens and gonadotrophins in improving pregnancy rates and live births, but there were serious limitations with the

evidence, including very small study sizes, a lack of information on female age, as well as confounding factors such as varicocele surgery. As there was so much uncertainty based on the unclear evidence, and based on their knowledge and experience, the committee agreed that these treatments should only be used as part of a clinical trial in people with impaired semen parameters and no hypogonadotropic hypogonadism. As the evidence was unclear, the committee made a [research recommendation about the effectiveness of anti-oestrogens or gonadotrophins](#).

There was no evidence of improved pregnancy rates with androgens and the committee discussed that, based on their knowledge and experience, taking androgens may even harm fertility.

There was no standardised treatment for sperm DNA fragmentation with different types, doses and combinations of antioxidants, supplements and medical treatments used across studies, and no convincing evidence of benefit because antioxidants showed equivocal effects on live birth and sperm DNA fragmentation, and no benefits on clinical pregnancy, miscarriage, stillbirth, and embryo quality/grading. The committee agreed that currently there is too much uncertainty about the relationship between sperm DNA fragmentation and subfertility, about the best way to test and define this, and if and how this should be treated. Before these uncertainties are resolved, testing and treating sperm DNA integrity is not appropriate.

How the recommendations might affect practice

The recommendations may decrease the use of gonadotrophins and anti-oestrogens to treat semen abnormalities, except to treat hypogonadotrophic hypogonadism, and may decrease the use of androgens to treat semen abnormalities.

The recommendation on treatment for DNA fragmentation reflects current best practice.

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Azoospermia

[Recommendations 1.4.7 to 1.4.9](#)

Why the committee made the recommendation

There was evidence that vasovasostomy, vasoepididymostomy and epididymovasostomy (all forms of surgical correction) and surgical sperm retrieval all increase chance of live birth and clinical pregnancy. The committee agreed that vasovasostomy is a simpler surgical technique but is not possible in all cases because it depends on the presentation of the obstruction, so the surgeon may need to make a decision about which technique to use during the procedure. Likewise, the committee agreed that the decision whether to use surgical reconstruction or surgical sperm retrieval would depend on other factors including female factors, time since the obstruction and personal preference.

There was no evidence on the techniques for surgical sperm retrieval in obstructive azoospermia, so the committee did not specify a technique.

For non-obstructive azoospermia, there was very limited evidence showing that microscopic testicular sperm extraction (micro-TESE) leads to a greater rate of sperm retrieval (suitable for IVF or ICSI) compared to testicular sperm aspiration (TESA). The committee noted that this finding was consistent with their own experience and in clinical practice, micro-TESE would be the preferred method of surgical sperm retrieval. There was evidence that micro-TESE does not increase adverse effects including testicular pain, atrophy, haematoma and infection compared to TESA plus salvage micro-TESE. However, the evidence was low or very low quality and there was no evidence for live birth, clinical pregnancy, and miscarriage. Therefore, based on the limited and low- to very low-quality evidence, the committee agreed that it would not be appropriate to make a strong recommendation.

How the recommendation might affect practice

The recommendation for obstructive azoospermia will standardise practice across the NHS by offering a choice of treatment options.

The recommendations will increase the use of micro-TESE to retrieve sperm for IVF or ICSI for non-obstructive azoospermia.

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1 **Y chromosome microdeletions**

2 [Recommendation 1.4.10](#)

3 **Why the committee made the recommendation**

4 The evidence, although poor quality, showed that the rate of successful surgical
5 sperm retrieval in people with Y chromosome AZFa or AZFb microdeletions was very
6 low, and even lower compared with people with Y chromosome AZFc microdeletion
7 and those without Y chromosome microdeletion. These findings aligned with the
8 committee's experience. Presence of Y chromosome AZFc microdeletion does not
9 affect the success of surgical sperm retrieval.

10 **How the recommendation might affect practice**

11 The recommendation reflects current best practice.

12 [Return to recommendation](#)

13 **Reduced sperm DNA integrity**

14 [Recommendation 1.4.11](#)

15 **Why the committee made the recommendation**

16 There was limited evidence on testicular sperm extraction as a treatment for sperm
17 DNA fragmentation and no benefits were shown in terms of pregnancy or
18 miscarriage rates when comparing ICSI using extracted sperm and ICSI using
19 ejaculated sperm. The committee also acknowledged the wider uncertainties about
20 the relationship between sperm DNA fragmentation and subfertility, and the best way
21 to test and define this. Based on this evidence, the committee recommended against
22 surgical sperm retrieval as a way of improving outcomes for people with reduced
23 sperm DNA integrity.

24 **How the recommendation might affect practice**

25 The recommendation reflects current best practice.

26 [Return to recommendation](#)

Varicocele

[Recommendation 1.4.12](#)

Why the committee made the recommendation

There was evidence of higher pregnancy rates following surgical or radiological treatment for varicocele for a subgroup with clinically detected varicocele and abnormal semen analysis, compared with no treatment. Very few studies reported on the outcome of live birth and those that did reported mixed results. Based on the evidence, the committee agreed that treatment for varicocele should be considered for those with clinically detected varicocele and abnormal semen analysis. The committee agreed that female factors should be taken into account because, where there is no chance of spontaneous conception because of female factor fertility problems, treating varicocele in the male partner would not be needed.

The evidence showed no important difference between surgical and radiological treatment but the committee noted that no evidence was identified for the important adverse outcome of testicular atrophy for this comparison. A small and statistically significant benefit of microscopic subinguinal surgical treatment relative to other surgical treatments was also observed but the committee noted that, although this option would be likely to be the preferred approach in specialist clinics, it is not universally available.

Because of the limited evidence and uncertainty in terms of the relative clinical and cost effectiveness of different radiological and surgical treatments, the committee made a [recommendation for research to compare the clinical and cost effectiveness of radiological, surgical and microsurgical treatment for varicocele](#).

How the recommendation might affect practice

The recommendation for varicocele might increase treatment for varicocele but this should lead to lower need for IVF and ICSI because couples could conceive spontaneously without the need for assisted conception. On the other hand, there could be a decrease in unnecessary treatment of varicocele for people in whom the varicocele is only detectable on ultrasound and not on examination.

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Management of ejaculatory failure

[Recommendation 1.4.13](#)

Why the committee made the recommendations

No evidence from randomised controlled trials was identified so the recommendation was made based on the committee's knowledge and experience. Because there are many different causes of ejaculatory failure, such as retrograde ejaculation, diabetic neuropathy, spinal cord injury and ejaculatory duct obstruction, it is important to identify the cause to determine the most appropriate and least invasive approach to manage the issue. The committee agree that the standard male infertility assessment would usually help identify the cause.

How the recommendations might affect practice

The recommendation reflects current best practice and can lead to more effective use of resources.

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Hypogonadotropic hypogonadism

[Recommendations 1.5.1 and 1.5.2](#)

Why the committee made the recommendations

The committee discussed that anovulatory infertility may be due to reduced body weight, so increasing weight and/or reducing excessive exercise may improve fertility. However, in some cases, the lack of gonadotrophin-releasing hormone from the hypothalamus or gonadotrophins from the pituitary gland leads to failure of ovulation, so replacement therapy with gonadotrophin-releasing hormone or gonadotrophins with luteinising hormone activity is needed to induce ovulation.

The committee noted that there was very limited evidence for increased clinical pregnancy rates with a recombinant follicle-stimulating hormone or luteinising hormone product compared with human menopausal gonadotrophin, but no evidence of a difference in the live birth rate. As the evidence was so limited, the committee agreed not to recommend a specific type of gonadotrophin.

How the recommendations might affect practice

The recommendations will reinforce current practice to treat hypogonadotropic hypogonadism with gonadotrophins or gonadotrophin-releasing hormones.

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Ovulatory disorders due to hyperprolactinaemia

[Recommendation 1.5.12](#)

Why the committee made the recommendation

There was some evidence that cabergoline resolves amenorrhoea and improves pregnancy rates. The committee noted that the previous version of the guideline had recommended bromocriptine but they were aware, based on their knowledge and experience, that cabergoline is associated with fewer side effects than bromocriptine, is less expensive and only needs to be taken once a week, and so agreed that cabergoline should be used to treat hyperprolactinaemia instead of bromocriptine.

How the recommendation might affect practice

The recommendation will increase the use of cabergoline for ovulatory disorders due to hyperprolactinaemia and reduce the use of bromocriptine. This will reduce costs for the NHS.

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Tubal surgery for mild tubal disease

[Recommendation 1.6.1](#)

Why the committee made the recommendation

The committee based the recommendation on their clinical knowledge and experience as no relevant randomised controlled trials were found. The committee agreed that tubal surgery should be considered as a treatment option for those with mild tubal disease who do not wish to have IVF because of, for example, their preferences, or moral or religious beliefs. The committee drew on current clinical practice and their knowledge of older cohort studies that suggest that tubal surgery may not be effective for more damaged fallopian tubes, so agreed not to recommend

it for those with moderate or severe tubal disease. The committee wanted to emphasise that tubal surgery should be performed in centres where appropriate expertise is available, to ensure patient safety.

How the recommendation might affect practice

The recommendation reinforces current best practice.

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Tubal catheterisation

[Recommendation 1.6.2](#)

Why the committee made the recommendation

Evidence from non-comparative and very-low-quality studies showed some benefit of tubal catheterisation. For example, for people with bilateral obstruction who would not be able to conceive without the procedure, a live birth rate of 16% and clinical pregnancy rate of 19% could be considered as an appreciable potential benefit. However, the committee noted the considerable heterogeneity and uncertainty in the evidence. The evidence on outcomes of ectopic pregnancy, miscarriage, or tubal perforation following tubal catheterisation was more consistent and showed low rates.

Without comparative trials comparing tubal catheterisation with other treatments, it is difficult to make a strong recommendation. In practice, IVF is often offered to those with proximal tubal obstruction. However, for some patients, tubal catheterisation may be the preferred treatment option, particularly where there might be religious or other objections to IVF, or where IVF might not be expected to have a significantly higher success rate relative to spontaneous conception – as in the case of those with diminished ovarian reserve.

Given the uncertainties around the potential benefits, the low rates of harm, and the importance of patient preference and shared decision making, the committee agreed that fallopian tube catheterisation should be considered for those with proximal tubal obstruction. However, this should be in the context of a full treatment discussion that covers the risks and benefits of other treatments, including IVF.

1 **How the recommendation might affect practice**

2 The recommendation reinforces current best practice.

3 [Return to recommendation](#)

4 **Surgery for hydrosalpinges before IVF**

5 [Recommendations 1.6.3 and 1.6.4](#)

6 **Why the committee made the recommendations**

7 There was evidence that salpingectomy before IVF compared with no surgery
8 improves clinical pregnancy rates. No evidence was available on its effectiveness on
9 improving live birth rates. There was also evidence that tubal occlusion before IVF
10 improves clinical pregnancy rates when compared with no surgery. Evidence
11 comparing salpingectomy and tubal occlusion found no clinically important difference
12 between the 2 treatments. The committee noted that salpingectomy is a more
13 invasive procedure but may help those who have chronic pelvic pain in addition to
14 hydrosalpinges. Based on the evidence, the committee agreed that both treatments
15 are options for treating hydrosalpinges before IVF.

16 There was some evidence, although it was of poor quality, that transvaginal
17 aspiration of hydrosalpinges before IVF is effective in improving clinical pregnancy
18 rates compared with no treatment. The committee noted that aspiration does not
19 provide a permanent solution, and that fluid often re-accumulates. Based on the
20 evidence, the committee agreed that aspiration can be considered for those for
21 whom laparoscopic surgery is not advised.

22 **How the recommendations might affect practice**

23 Recommendation on salpingectomy and tubal occlusion reflect current practice. The
24 recommendation on aspiration to treat hydrosalpinges may lead to an increase in
25 this procedure as it is not currently common practice. If it is done at the time of egg
26 collection, no extra procedure would be needed. There could indeed be an overall
27 resource saving through reduced need for further IVF cycles if people who would
28 otherwise not have treatment for their hydrosalpinges (because laparoscopy would
29 be risky) would increase their chances of pregnancy through aspiration treatment.

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Unexplained fertility problems, mild endometriosis and mild male factor fertility problems in people trying to conceive through unprotected vaginal sexual intercourse

[Recommendations 1.8.2 and 1.8.3](#)

Why the committee made the recommendations

A network meta-analysis (NMA) comparing treatment options for people with unexplained fertility problems, mild endometriosis or mild male factor fertility problems compared expectant management (no treatment), different ovarian stimulation regimens, IUI with or without ovarian stimulation, and IVF, and their effect on live birth rate, clinical pregnancy rate and multiple gestation. An economic model was developed based on the NMA. Based on the clinical- and cost-effectiveness evidence, the committee concluded that IVF is the most cost-effective first-line treatment, and ovarian stimulation alone is not effective or cost effective. There was sufficient evidence that IUI with ovarian stimulation with a gonadotrophin could be cost effective, so the committee agreed that it could be considered as an alternative first-line treatment option before IVF. The committee acknowledged that some people may prefer the less invasive treatment of IUI to IVF.

How the recommendations might affect practice

More people might opt for IUI (with a gonadotrophin) as first-line treatment before IVF. This could result in some increase in costs, but the committee agreed that this should be limited as it would likely only affect a small proportion of the relevant population and would avoid the need for IVF for some. Otherwise, the recommendations are not expected to have a significant resource impact as the previous NICE guideline also recommended IVF as a first-line treatment.

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Access criteria for IVF

[Recommendations 1.9.2 to 1.9.5 and 1.9.7](#)

1 **Why the committee made the recommendations**

2 Evidence supported using ovarian reserve (using anti-Müllerian hormone or antral
3 follicle count) as a prognostic indicator for outcomes of assisted conception, so the
4 committee agreed that ovarian reserve should be taken into account when
5 discussing IVF as a treatment option.

6 The recommendations on IVF access criteria are based on an economic analysis
7 that used validated prediction models to estimate the effectiveness and cost
8 effectiveness of IVF in different clinical scenarios. The committee agreed that the
9 economic analysis, despite some limitations, provides stronger evidence than the
10 previous NICE guideline that 3 full cycles of IVF is a cost-effective treatment for the
11 NHS to provide for those under 40 years. This is manifested by much lower
12 incremental cost-effectiveness ratios (ICERs) than observed in the previous
13 guideline, typically falling below a cost-effectiveness threshold of £20,000 per
14 quality-adjusted life year (QALY). The previous NICE guideline had used a less
15 stringent cost-effectiveness threshold of £30,000 per QALY.

16 The analysis suggested that up to 6 cycles could be cost effective using a threshold
17 of £20,000 per QALY; however, there were some uncertainties in the evidence,
18 particularly for cycles 4 to 6. These uncertainties related to concerns about
19 increasing selection bias in the datasets informing the prediction models and the
20 very small numbers of women in these datasets having 4 or more cycles, resulting in
21 considerable sampling uncertainty around the point estimates for predicted live birth
22 rates for these higher order IVF cycles. The committee agreed that the evidence was
23 not sufficiently robust to justify increasing the number of cycles initially being offered
24 because of its potentially significant resource impact, but agreed that further cycles,
25 beyond the initial 3, could be considered.

26 For those aged 40 or 41 years, the cost-effectiveness evidence for IVF was less
27 clear cut, and in some model scenarios was not found to be cost effective. However,
28 the committee did note that a limited number of IVF cycles was often cost effective,
29 especially if inherent uncertainty in model parameters was taken into account.
30 Therefore, the committee agreed that the evidence did not support removing the
31 provision of IVF altogether for this age group and recommended that 1 cycle of IVF
32 be offered.

1 However, the committee agreed that the cost-effectiveness analysis no longer
2 provided sufficiently strong evidence to support the provision of IVF to 42-year-olds.
3 The committee wanted to produce pragmatic recommendations that reflected the
4 totality of the cost-effectiveness evidence and the limitations of the data. In women
5 aged 42 years, no cycles of IVF were ever cost effective at an ICER of £20,000 per
6 QALY in any of the scenarios in the base-case analyses, and for most clinical
7 scenarios included in the analysis, IVF was not cost effective even when using the
8 less stringent £30,000 per QALY decision threshold. In the limited scenarios where
9 borderline cost effectiveness was suggested, limitations in the data, likely
10 overestimation of IVF effectiveness or other factors, led to the committee to conclude
11 that IVF is not a cost-effective treatment for people aged 42.

12 **How the recommendations might affect practice**

13 In current practice, very few areas in England offer IVF treatment according to NICE
14 recommendations. The cost-effectiveness evidence for IVF for those under 40 is now
15 stronger, which could lead to an increase in the number of IVF cycles provided by
16 the NHS. This would have a resource impact; although, based on their knowledge of
17 localised data where more cycles are offered, the committee agreed that the
18 provision of IVF would likely not increase that much. Areas that currently offer IVF to
19 42-year-olds would be expected to change practice, so there could be some modest
20 cost savings in those areas.

21 [Return to recommendations](#)

22 [Recommendation 1.5.12](#)

23 **Why the committee made the recommendation**

24 There was some evidence that cabergoline resolves amenorrhoea and improves
25 pregnancy rates. The committee noted that the previous version of the guideline had
26 recommended bromocriptine but they were aware, based on their knowledge and
27 experience, that cabergoline is associated with fewer side effects than bromocriptine,
28 is less expensive and only needs to be taken once a week, and so agreed that
29 cabergoline should be used to treat hyperprolactinaemia instead of bromocriptine.

Pre-treatment in IVF

[Recommendations 1.10.3 and 1.10.4](#)

Why the committee made the recommendations

The evidence on endometrial scratch was inconclusive; there were mixed findings across different studies, including potential harm, potential benefit, or no effect. Endometrial scratch is an invasive procedure that has time, resource and financial costs because it is not possible to combine it with another procedure. Because of the uncertainty and inconsistency in the evidence, and the potential for endometrial scratch to have a negative impact on IVF outcomes or no impact at all, the committee agreed that it should not be offered.

There was conflicting evidence from randomised controlled trials (RCTs) on the effectiveness of screening hysteroscopy before assisted conception for those without known or suspected uterine abnormalities on outcomes of live birth and clinical pregnancy. Larger, better quality, multicentre RCTs showed no benefit on these outcomes, whereas several smaller RCTs with a higher risk of bias showed there to be an important benefit. Balancing the uncertainty in the evidence of any benefit against the invasiveness and cost of the procedure, the committee concluded that hysteroscopy should not be offered as a way to improve IVF outcomes. However, the committee recognised the importance of hysteroscopy when uterine or endometrial abnormality is suspected.

How the recommendations might affect practice

There may be a reduction in unnecessary procedures as endometrial scratch, and hysteroscopy are sometimes done in current clinical practice.

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Endometrial receptivity testing

[Recommendation 1.10.5](#)

Why the committee made the recommendation

The evidence showed no difference in clinical pregnancy and live birth rates between gene expression analysis using endometrial receptivity array (ERA) timed frozen

embryo transfer and standard frozen or fresh embryo transfer. There was also evidence that ERA-timed frozen embryo transfer had a lower risk of multiple gestation compared with standard fresh embryo transfer but led to an increased rate of clinical pregnancy loss.

There was no evidence on treatment of endometrial abnormalities related to the microbiome or microbiological analysis, so the committee made a [recommendation for research on treatments based on endometrial receptivity testing](#).

How the recommendation might affect practice

The recommendation will decrease the use of endometrial receptivity testing.

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Immunological treatments

[Recommendation 1.10.6](#)

Why the committee made the recommendation

Overall, there was no convincing evidence that immunological treatments are effective in improving fertility outcomes, and there are various safety concerns associated with their use, so the committee agreed that they should not be used as part of fertility treatment.

The evidence on intralipids was inconclusive and studies had high risk of bias. One RCT showed an increase in live birth rate in the intralipids arm, the other studies showed no important difference between groups either for live birth or for miscarriage rates. The committee also discussed the risks of intralipid use, including the potential for congenital malformations, common, minor side effects (such as headache and nausea), and rarer, more serious side effects (such as bone pain and muscle weakness). The committee agreed that the existing evidence does not justify its use.

The evidence on intravenous immunoglobulins (IVIG) came from small studies and showed no effect on live birth or miscarriage rates. In addition, there are potential safety concerns, including risks associated with any blood products as well as common side effects such as headache and muscle pain, and more serious adverse

events such as thrombosis and kidney failure. The committee noted that IVIG is an invasive and expensive treatment, and agreed that the existing effectiveness evidence and potential risks do not justify its use.

In terms of steroids (glucocorticoids), there was poor-quality evidence that showed some mixed findings, but overall did not find steroids to be effective on fertility outcomes, including live birth, clinical pregnancy and miscarriage. Some of the studies showed a benefit of steroids for live birth and miscarriage rates but others showed no difference between groups who received steroids or no steroids for these outcomes. The committee discussed the significant safety concerns associated with the use of steroids, most importantly that they suppress the immune system, which puts patients at risk of infections, and other side effects. Due to the lack of convincing evidence of effectiveness and serious safety concerns, the committee agreed that steroids should not be used as part of fertility treatment.

How the recommendation might affect practice

The recommendation will reinforce current best practice.

[Return to recommendation](#)

Embryo selection strategies in IVF

[Recommendation 1.10.24](#)

Why the committee made the recommendation

Pre-implantation genetic testing for aneuploidy (PGT-A)

Evidence on the effectiveness of pre-implantation genetic testing for aneuploidy (PGT-A) on improving live birth rates was inconclusive and there are potential risks associated with its use. PGT-A often reduces the number of embryos available for transfer, which can mean that embryo transfer cannot take place in that IVF cycle. Evidence on the effect of PGT-A on miscarriage is also uncertain. Based on the evidence, the committee agreed that PGT-A should not be offered as part of fertility treatment.

Time-lapse imaging

Evidence on embryo selection using time-lapse imaging compared with conventional embryo selection showed no benefit on ongoing pregnancy, clinical pregnancy or live birth. The evidence for all outcomes was of very low certainty. The committee were also aware of a recent randomised controlled trial (RCT) published in 2024 that showed no important difference in live birth rates for time-lapse imaging compared with standard care. Although the committee agreed that current evidence does not show embryo selection using time-lapse imaging to be better than conventional embryo selection, time-lapse systems may have other benefits, including time-lapse incubation, and more research is needed to understand the full potential of these technologies. The committee did not make a recommendation about the use of time-lapse imaging for embryo selection because there is no evidence of clinical benefit relative to conventional embryo selection. However, the committee did not want to preclude the use of time-lapse imaging because these systems are widely used and may have benefits in terms of incubation, such as providing a more stable environment than conventional systems, even if benefits in terms of embryo selection are less clear. The committee agreed that further research would be needed but that it would be premature to draft a fully specified and implementable research recommendation that would be able to deliver conclusive results about the potential benefits of time-lapse imaging for embryo selection.

How the recommendation might affect practice

The recommendation on PGT-A should reinforce current best practice. Time-lapse systems are used in practice. No recommendation was made on time-lapse imaging for embryo selection and this should not have an impact on current practice.

[Return to recommendation](#)

Intracytoplasmic sperm injection

[Recommendations 1.11.1 to 1.11.5](#)

1 **Why the committee made the recommendations**

2 The committee made recommendations based on their knowledge, experience and
3 current best practice because the original 2004 recommendation on indications for
4 ICSI was outdated and no longer helpful.

5 The committee reviewed evidence on the effectiveness of ICSI for non-male factor
6 fertility problems. The evidence showed that ICSI does not have an impact on live
7 birth rates, clinical pregnancy rates or any other outcomes. The committee agreed
8 that ICSI should not be used for non-male factor fertility problems. However, in line
9 with the original 2004 recommendation on ICSI, the committee agreed that ICSI
10 could be considered if previous standard IVF cycles have resulted in failed or very
11 poor fertilisation.

12 There was insufficient evidence on the effectiveness of IMSI as an adjunct to ICSI in
13 terms of improving live birth rate compared with standard ICSI, so the committee
14 agreed that it should not be used, as it is unlikely to provide any benefit over
15 standard ICSI.

16 Evidence on physiological intracytoplasmic sperm injection (PICSi) showed no
17 difference in rate of live births when compared with standard ICSI, therefore the
18 committee agreed that it should not be used.

19 **How the recommendations might affect practice**

20 The recommendations will decrease the use of ICSI for non-male factor fertility
21 problems and could therefore result in cost savings.

22 The recommendations on IMSI and PICSi should reinforce current best practice.

23 [Return to recommendations](#)

24 **Fertility preservation for medical indications**

25 [Recommendations 1.14.1 and 1.14.4 to 1.14.7](#)

26 **Why the committee made the recommendations**

27 The previous NICE guideline recommendations on fertility preservation only covered
28 people with cancer who wish to preserve their fertility. For this update, the population

1 was expanded to cover anyone with a medical indication likely to impair their
2 reproductive potential, including medical treatments or conditions. Most of the
3 evidence was among people with cancer; however, there was some evidence that
4 fertility preservation can be successful for other medical indications. The committee
5 agreed that fertility preservation should be discussed as an option for anyone with an
6 appropriate medical indication.

7 Cryopreservation of sperm is established practice and supported by evidence, but
8 cryopreservation of testicular tissue is still experimental and very limited evidence
9 was available. This is particularly relevant for boys or people with male reproductive
10 organs before and during puberty. Therefore, the committee made a
11 [recommendation for research about testicular tissue cryopreservation](#) among
12 prepubertal and peripubertal males undergoing treatment for cancer or other
13 conditions, or in situations that are likely to impair their fertility.

14 The committee also reviewed the evidence on oocyte and embryo cryopreservation
15 and ovarian tissue cryopreservation. Given the larger evidence base, higher live birth
16 and clinical pregnancy rates, and more established retrieval procedures, the
17 committee agreed that oocyte or embryo cryopreservation should be offered for
18 medical indications. The evidence on ovarian tissue retrieval and cryopreservation
19 was more limited but showed it is feasible and effective. This would be particularly
20 relevant for girls and people with female reproductive organs before puberty, when
21 oocyte and embryo retrieval would not be possible.

22 Consent to store cryopreserved material must be renewed with the person every
23 10 years for storage to lawfully continue. In addition to the legal requirement, the
24 committee emphasised the importance of more robust follow-up procedures to
25 discuss the need for continued storage. Balancing considerations such as minimising
26 the time storing materials unnecessarily, the resources needed to organise follow-
27 ups, and risk of losing touch with people, the committee agreed follow-ups at least
28 every 5 years would be reasonable but leaving flexibility.

29 **How the recommendations might affect practice**

30 There may be some variation in the provision of NHS-funded fertility preservation for
31 the range of medical indications, but the recommendations broadly reflect current

practice and therefore are not expected to result in a significant resource impact for the NHS. The recommendation on regular follow-ups could have some resource implications but ultimately could lead to cost savings as unnecessary storage would be avoided.

[Return to recommendations](#)

Context

The purpose of this guideline is to make recommendations on the investigation and management of health-related fertility problems. In this guideline, health-related fertility problems are defined as known health-related impediments to fertility, including diseases of the reproductive system and any other health problems that reduce or limit the ability to have children, or the inability to achieve a pregnancy after 12 months of regular unprotected vaginal sexual intercourse or 6 cycles of artificial insemination. The guideline is applicable to all people seeking assessment and treatment of health-related fertility problems who meet these criteria, irrespective of their sexual orientation, partnership status or gender identity. Initial cycles of artificial insemination for people without known health-related fertility problems are not covered in this guideline.

Most fertility treatment is in heterosexual couples (89% in 2022), but the proportion of same-sex female couples and single people seeking fertility treatment has more than doubled within a decade (4% and 6% in 2022, respectively, [Human Fertilisation and Embryology Authority \[HFEA\] 2022](#)). It is estimated that 1 in 6 heterosexual couples in the UK need specialist help to conceive after trying for more than 2 years ([Hull et al. 1985](#), [Templeton et al. 1990](#)). The main causes of fertility problems are female factors such as ovulatory disorders (21%), tubal damage (14%) and endometriosis (6%; [Hull et al. 1985](#)). Male factors account for 26% of fertility problems and are mainly due to issues with sperm production or sperm delivery, including poor-quality semen, testicular problems, ejaculation disorders, or hypogonadism, although in up to 70% of male factor cases, the cause may be unknown ([Babakhanzadeh et al. 2020](#)). It is common to find both female and male factor fertility problems. In about 25% of cases, investigations do not reveal a defined cause of fertility problems ([NHS 2022](#)).

There are known complexities around access and funding in this area. In England, decisions about providing and accessing fertility services within the NHS are made locally by integrated care boards (ICBs). This guideline does not make recommendations on funding arrangements but provides recommendations on what best evidence-based clinical practice should be.

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the [NICE webpage on fertility, pregnancy and childbirth](#).

For details of the guideline committee, see the [committee member list](#).

Update information

This guideline is an update of NICE guideline CG156 (published February 2013) and will replace it.

The [guideline scope](#) outlines the guideline areas that are being updated. We are updating this guideline in stages. In this first part of the update, we have reviewed the evidence and made recommendations on the following topics:

Report title	Related scope area	Review question
A Ovarian reserve testing	2.1.1	What is the association between markers of ovarian reserve and: the likelihood of spontaneous conception, the response to fertility treatment, and the outcome of fertility treatment?
B Subclinical hypothyroidism	2.1.2	What is the clinical and cost effectiveness of treating subclinical hypothyroidism for female factor fertility problems?
C Screening hysteroscopy	2.1.3	What is the effectiveness of screening hysteroscopy (with or without treatment of any detected uterine cavity abnormalities) on reproductive outcomes for people with female factor fertility problems?
D Endometrial receptivity testing	2.1.4	What is the clinical and cost effectiveness of tests for endometrial receptivity (including gene expression analysis and microbiological analysis) as a treatment add-on for people undergoing fertility treatment?
E Ovulation induction strategies for	2.2.1b	What is the clinical and cost effectiveness of ovulation induction strategies in people with hypogonadotropic hypogonadism?

Report title	Related scope area	Review question
hypogonadotropic hypogonadism		
F Cabergoline for hyperprolactinaemia	2.2.2	What is the clinical and cost effectiveness of cabergoline for fertility problems associated with hyperprolactinaemic amenorrhoea or oligomenorrhea?
G Tubal surgery	2.2.3a	What is the clinical and cost effectiveness of tubal surgery (as a stand-alone treatment) compared to expectant management or in vitro fertilisation (IVF) for fertility problems associated with tubal disease?
H Surgery for hydrosalpinges before IVF	2.2.3b	What is the clinical and cost effectiveness of surgery for hydrosalpinges prior to assisted reproductive technology (ART), relative to standard ART without prior surgical optimisation, for people with tubal disease?
I Tubal catheterisation	2.2.3c	What is the likelihood of spontaneous conception when tubal catheterisation/cannulation is used for the treatment of proximal tubal obstruction?
J Fertility prediction models and IVF access	3.1.1	What is the predictive performance of clinical prediction models for assessing the chances of live birth for people with health-related fertility problems using: expectant management, intrauterine insemination (IUI), or IVF with or without intracytoplasmic sperm injection (ICSI)?
K Assisted reproduction techniques for people with unexplained fertility problems, mild endometriosis, and mild male factor fertility problems	3.2.1 /3.3.1	What is the clinical and cost effectiveness of ovarian stimulation, intrauterine insemination (IUI) with or without ovarian stimulation, IVF and expectant management for people with unexplained health-related fertility problems, mild endometriosis, and people with a single abnormal semen parameter?
L Intracytoplasmic sperm injection for non-male factor fertility problems	3.4.1	What is the effectiveness of intracytoplasmic sperm injection (ICSI) compared to standard in vitro fertilisation (IVF) in non-male factor fertility problems?
M Advanced sperm selection techniques as a treatment add-on	3.5.1	What is the clinical and cost effectiveness of alternatives to standard sperm selection techniques as a treatment add-on for people undergoing fertility treatment?
N Pre-implantation genetic testing for aneuploidy as a treatment add-on	3.5.2a	What is the clinical and cost effectiveness of pre-implantation genetic testing for aneuploidy (PGT-A; with blastocyst stage biopsy and genome-wide analysis) as a treatment add-on for people undergoing fertility treatment?
O Embryo selection guided by continuous time-lapse sequence as a treatment add-on	3.5.2b	What is the clinical and cost effectiveness of embryo selection guided by continuous time-lapse monitoring (with or without artificial intelligence algorithms) as a treatment add-on for people undergoing fertility treatment?

Report title	Related scope area	Review question
P Endometrial scratch as a treatment add-on	3.5.3	What is the clinical and cost effectiveness of endometrial scratch as a treatment add-on for people undergoing fertility treatment?
Q Immune therapies as a treatment add-on	3.5.5	What is the clinical and cost effectiveness of immune therapies as a treatment add-on for people undergoing fertility treatment?
R Fertility preservation	4.1.1	What is the success rate, and which factors affect the outcome, of fertility preservation for children and adults undergoing treatment for cancer and other conditions or situations which are likely to impair their fertility?
S Sperm DNA fragmentation	1.1.1a	What is the clinical and cost effectiveness of treating DNA fragmentation (identified from screening ejaculated sperm) on reproductive outcomes for people with male factor fertility problems?
T Y chromosome microdeletion	1.1.1b	What is the association between Y chromosome microdeletions (positive AZF a, b, and c) and successful sperm retrieval in people with non-obstructive azoospermia?
U Hormone treatment for male factor fertility problems	1.2.1	What is the effectiveness of hormone treatment in male factor fertility problems?
V Treatments for ejaculatory failure	1.2.2	What is the clinical and cost effectiveness of treatments for ejaculatory failure?
W Surgical interventions for obstructive azoospermia	1.2.3	What is the clinical and cost effectiveness of surgical interventions for fertility problems associated with obstructive azoospermia?
X Treatments for varicocele	1.2.4	What is the effectiveness of treatments for fertility problems associated with varicocele (including radiological embolisation and surgery)?
Y Surgical sperm retrieval techniques	1.3.1	What is the clinical and cost effectiveness of surgical sperm retrieval (SSR) techniques for fertility problems associated with non-obstructive azoospermia, or obstructive azoospermia?

- 1
- 2 • You are invited to comment on the new recommendations, which are not shaded
- 3 in grey and are marked **[2026]**.
- 4 • The wording of existing recommendations in all other sections of the guideline
- 5 (apart from those covered by the next part of the update; see below), has been
- 6 reviewed by the committee, even when the evidence was not reviewed. These

existing recommendations are shaded in grey. In some cases, we have made wording changes for clarification. These changes are highlighted in yellow, and reasons for the changes are given in [table 4](#). We also propose to delete some recommendations from the 2013 guideline – see [table 3](#).

- The wording of existing recommendations has been editorially reviewed and updated as needed, for example, to update links or bring the language and style up to date, without changing the intent of the recommendation.
- Please note that, because we have not reviewed the evidence for the recommendations shaded in grey, we cannot accept comments on them.
- See also the [previous NICE guideline and supporting documents](#).

There are a number of potential future topics, which are listed in the [guideline scope](#). These are:

Related scope area	Review question
2.2.1a	What is the clinical and cost effectiveness of ovulation induction strategies in people with polycystic ovary syndrome (PCOS)?
2.2.3d	What is the clinical and cost effectiveness of hysteroscopic septum resection compared to expectant management for people with fertility problems associated with a septate uterus?
3.6.1	What is the effectiveness and safety of different embryo or blastocyst transfer strategies in relation to both: number of embryos, timing of transfer?
3.7.1	What is the effectiveness and safety of different regimens of frozen embryo transfer?
3.8.1	What is the effect of ART on obstetric risk in women undergoing fertility treatment?
3.8.2	What is the long-term safety of in vitro fertilisation (IVF) with or without intracytoplasmic sperm injection (ICSI) in women with fertility problems and their children conceived through ART?

Table 3 Recommendations that have been deleted

Recommendation in 2013 guideline	Comment
Inform people who are using artificial insemination to conceive and who are concerned about their fertility that using fresh sperm is associated with higher conception rates than frozen–thawed sperm. However, intrauterine insemination, even using frozen–thawed sperm, is	This recommendation has been deleted because it is not particularly helpful; fresh sperm is not usually available for those not using partner sperm. Intrauterine insemination is standard practice.

Recommendation in 2013 guideline	Comment
associated with higher conception rates than intracervical insemination. [2013] (1.2.1.3)	
Women who smoke should be offered referral to a smoking cessation programme to support their efforts in stopping smoking. [2004] (1.2.4.2)	Replaced by: Encourage and support people to stop smoking as advised in the NICE guideline on tobacco: preventing uptake, promoting quitting and treating dependence. (1.2.12)
Use 1 of the following measures to predict the likely ovarian response to gonadotrophin stimulation in IVF: - total antral follicle count of less than or equal to 4 for a low response (follicles of less than or equal to 5 mm measured by transvaginal ultrasound on day 3 of cycle: low response was less than 4 oocytes), and greater than 16 for a high response (follicles of 2 to 10 mm measured by transvaginal ultrasound on day 3 of cycle: high response was more than or equal to 15 oocytes or more than or equal to 20 oocytes) - anti-Müllerian hormone of less than or equal to 5.4 pmol/l for a low response (Beckman–Coulter assay: poor response defined as less than 4 oocytes or cancellation), and greater than or equal to 25.0 pmol/l for a high response (Beckman–Coulter or DSL assays: defined high response as more than or equal to 15 oocytes to more than 21 oocytes) - follicle-stimulating hormone greater than 8.9 IU/l for a low response, and less than 4 IU/l for a high response (long protocol of down-regulation: low response defined as less than 4 oocytes or cancellation; high response defined as more than 20 oocytes). [new 2013] (1.3.3.2)	Replaced by: Do not use anti-Müllerian hormone (AMH) measurement alone as a predictor of clinical pregnancy through spontaneous conception. [2026] (1.3.13) Use AMH measurement or antral follicle count (AFC) as predictors of ovarian response and likelihood of live birth following assisted conception. [2026] (1.3.14) Do not use follicle-stimulating hormone (FSH) measurement as a predictor of ovarian response or outcome of assisted conception. [2026] (1.3.15)
Do not use any of the following tests individually to predict any outcome of fertility treatment: - ovarian volume - ovarian blood flow - inhibin B - oestradiol (E2). [new 2013] (1.3.3.3)	See above.

Recommendation in 2013 guideline	Comment
Women should not be offered an endometrial biopsy to evaluate the luteal phase as part of the investigation of fertility problems because there is no evidence that medical treatment of luteal phase defect improves pregnancy rates. [2004] (1.3.7.1)	This recommendation has been deleted because this is no longer clinical practice.
Advise couples that if all the criteria in recommendation 1.3.10.2 are met, sperm washing may not further reduce the risk of infection and may reduce the likelihood of pregnancy. [new 2013] (1.3.10.3)	This recommendation has been deleted because it is no longer relevant. Where all the criteria in the previous recommendation are met, sperm washing is not an option that needs to be discussed.
If couples who meet all the criteria in recommendation 1.3.10.2 still perceive an unacceptable risk of HIV transmission after discussion with their HIV specialist, consider sperm washing. [new 2013] (1.3.10.6)	This recommendation has been deleted because it no longer reflects current practice, as people with undetectable viral load are no longer considered infectious.
Inform couples that there is insufficient evidence to recommend that HIV-negative women use pre-exposure prophylaxis, when all the criteria in recommendation 1.3.10.2 are met. [new 2013] (1.3.10.7)	This recommendation has been deleted because it no longer reflects current practice, as people with undetectable viral load are no longer considered infectious.
Men with hypogonadotrophic hypogonadism should be offered gonadotrophin drugs because these are effective in improving fertility. [2004] (1.4.1.1)	Replaced by: Offer gonadotrophin therapy to treat men, trans women and non-binary people with male reproductive organs who have hypogonadotropic hypogonadism. [2026] (1.4.1)
Men with idiopathic semen abnormalities should not be offered anti-oestrogens, gonadotrophins, androgens, bromocriptine or kinin-enhancing drugs because they have not been shown to be effective. [2004] (1.4.1.2)	Replaced by: Only consider anti-oestrogen or gonadotrophin therapy (alone or in combination) for men, trans women and non-binary people with male reproductive organs who have impaired semen parameters and no hypogonadotropic hypogonadism or evidence of obstruction as part of a clinical trial. [2026] (1.4.2)
Where appropriate expertise is available, men with obstructive azoospermia should be offered surgical correction of epididymal blockage because it is likely to restore patency of the duct and improve fertility. Surgical correction should be considered as an alternative to surgical sperm recovery and IVF. [2004] (1.4.2.1)	Replaced by: Offer men, trans women and non-binary people with male reproductive organs surgical correction or surgical sperm retrieval to treat obstructive azoospermia. When deciding which treatment to offer, take into account the following factors: female fertility factors (for example, age, ovarian reserve, tubal patency and ovulatory status)

Recommendation in 2013 guideline	Comment
	- the obstructive interval if known (for example, the time from vasectomy to seeking reversal) - the risks and benefits of the surgical intervention - the person's preference. [2026] (1.4.7)
Men should not be offered surgery for varicoceles as a form of fertility treatment because it does not improve pregnancy rates. [2004] (1.4.2.2)	Replaced by: Consider treatment (surgical or radiological) for clinically detected varicocele in men, trans women and non-binary people with male reproductive organs who are trying to conceive spontaneously and who have reduced semen parameters, taking into consideration female fertility factors. [2026] (1.4.10)
Treatment of ejaculatory failure can restore fertility without the need for invasive methods of sperm retrieval or the use of assisted reproduction procedures. However, further evaluation of different treatment options is needed. [2004] (1.4.3.1)	Replaced by: For men, trans women and non-binary people with male reproductive organs who have ejaculatory failure, identify the cause to determine the most appropriate and least invasive method of managing the issue. [2026] (1.4.11)
Advise women with WHO Group 1 anovulatory infertility that they can improve their chance of regular ovulation, conception and an uncomplicated pregnancy by: - increasing their body weight if they have a BMI of less than 19 and/or - moderating their exercise levels if they undertake high levels of exercise. [new 2013] (1.5.1.1)	Replaced by: Advise women, trans men and non-binary people with female reproductive organs who have hypogonadotropic hypogonadism and anovulatory infertility that they may improve their chance of regular ovulation, conception and an uncomplicated pregnancy by: - increasing their body weight to reach a healthy weight if they have a BMI of less than 18.5 kg/m² and/or - moderating their exercise levels if they undertake high levels of exercise. Also see NHS advice on healthy ways to gain weight. [2026] (1.5.1)
Offer women with WHO Group 1 ovulation disorders pulsatile administration of gonadotrophin-releasing hormone or gonadotrophins with luteinising hormone activity to induce ovulation. [2013] (1.5.1.2)	Replaced by: Offer gonadotrophins with luteinising hormone activity or gonadotrophin-releasing hormone to induce ovulation in women, trans men and non-binary people with female reproductive

Recommendation in 2013 guideline	Comment
	organs who have hypogonadotropic hypogonadism. [2026] (1.5.2)
Women with ovulatory disorders due to hyperprolactinaemia should be offered treatment with dopamine agonists such as bromocriptine. Consideration should be given to safety for use in pregnancy and minimising cost when prescribing. [2004] (1.5.3.1)	Replaced by: Offer cabergoline to treat ovulatory disorders due to hyperprolactinaemia. [2026] (1.5.12)
For women with mild tubal disease, tubal surgery may be more effective than no treatment. In centres where appropriate expertise is available, it may be considered as a treatment option. [2004] (1.6.1.1)	Replaced by: Consider tubal surgery as a treatment option for women and people with female reproductive organs who have mild tubal disease, in centres where appropriate expertise is available. [2026] (1.6.1)
Women with hydrosalpinges should be offered salpingectomy, preferably by laparoscopy, before IVF treatment because this improves the chance of a live birth. [2004] (1.6.3.1)	Replaced by: Offer laparoscopic salpingectomy or tubal occlusion to treat hydrosalpinges before IVF treatment. [2026] (1.6.3)
For women with proximal tubal obstruction, selective salpingography plus tubal catheterisation, or hysteroscopic tubal cannulation, may be treatment options because these treatments improve the chance of pregnancy. [2004] (1.6.2.1)	Replaced by: Consider fallopian tube catheterisation by hysteroscopic or radiological guidance for people with subfertility due to proximal tube obstruction after a discussion of the risks and benefits of alternatives, including IVF. [2026] (1.6.2)
Do not offer oral ovarian stimulation agents (such as clomifene citrate, anastrozole or letrozole) to women with unexplained infertility. [2013] (1.8.1.1)	Replaced by: Do not offer ovarian stimulation as a stand-alone treatment to those with unexplained fertility, mild endometriosis or mild male factor fertility problems. [2026] (1.8.2)
Inform women with unexplained infertility that clomifene citrate as a stand-alone treatment does not increase the chances of a pregnancy or a live birth. [2013] (1.8.1.2)	Replaced by: Do not offer ovarian stimulation as a stand-alone treatment to those with unexplained fertility, mild endometriosis or mild male factor fertility problems. [2026] (1.8.2)
Offer IVF treatment (see recommendations 1.11.1.3 and 1.11.1.4) to women with unexplained infertility who have not conceived after 2 years (this can include up to 1 year before their fertility investigations) of regular unprotected sexual intercourse. [2013] (1.8.1.4)	Replaced by: For people with unexplained fertility problems, mild endometriosis or mild male factor fertility problems who have tried to conceive for 2 years through regular unprotected vaginal sexual intercourse, discuss the treatment options, including the benefits, risks and their individual preferences and:

Recommendation in 2013 guideline	Comment
	• before IVF treatment, consider up to 4 cycles of IUI with ovarian stimulation using gonadotrophins, or • offer IVF treatment (see section on access criteria for IVF). [2026] (1.8.3)
For people with unexplained infertility, mild endometriosis or mild male factor infertility, who are having regular unprotected sexual intercourse: • do not routinely offer intrauterine insemination, either with or without ovarian stimulation (exceptional circumstances include, for example, when people have social, cultural or religious objections to IVF) • advise them to try to conceive for a total of 2 years (this can include up to 1 year before their fertility investigations) before IVF will be considered. [2016] (1.9.1.3)	Replaced by: For people with unexplained fertility problems, mild endometriosis or mild male factor fertility problems who have tried to conceive for 2 years through regular unprotected vaginal sexual intercourse, discuss the treatment options, including the benefits, risks and their individual preferences and: • before IVF treatment, consider up to 4 cycles of IUI with ovarian stimulation using gonadotrophins, or • offer IVF treatment (see section on access criteria for IVF). [2026] (1.8.3)
Inform women that the chance of a live birth following IVF treatment falls with rising female age (see figure 2). [2013] (1.10.1.1)	This recommendation has been deleted because it was not considered to be useful and could be misused to deny treatment, and it is already covered in section on 'Initial advice'.
Inform people that the overall chance of a live birth following IVF treatment falls as the number of unsuccessful cycles increases. [new 2013] (1.10.2.1)	This recommendation has been deleted because it was not considered to be useful.
People should be informed that IVF treatment is more effective in women who have previously been pregnant and/or had a live birth. [2004, amended 2013] (1.10.3.1)	This recommendation has been deleted because it was not considered to be useful.
Women should be informed that female BMI should ideally be in the range 19 to 30 before commencing assisted reproduction, and that a female BMI outside this range is likely to reduce the success of assisted reproduction procedures. [2004] (1.10.4.1)	This recommendation has been deleted because it was not considered to be useful and could be misused to deny treatment, and advice around BMI is already covered in section on 'Initial advice'.
People should be informed that the consumption of more than 1 unit of alcohol per day reduces the effectiveness of assisted reproduction procedures, including IVF. [2004, amended 2013] (1.10.5.1)	This recommendation has been deleted because it was not considered to be useful, and advice on alcohol is already covered in section on 'Initial advice'.
People should be informed that maternal and paternal smoking can adversely affect the success rates of assisted reproduction	This recommendation has been deleted because it was not considered to be useful, and advice on smoking is

Recommendation in 2013 guideline	Comment
procedures, including IVF treatment. [2004, amended 2013] (1.10.5.2)	already covered in section on 'Initial advice'.
People should be informed that maternal caffeine consumption has adverse effects on the success rates of assisted reproduction procedures, including IVF treatment. [2004, amended 2013] (1.10.5.3)	This recommendation has been deleted because it was not considered to be useful and advice on caffeine use is already covered in section on 'Initial advice'.
In women aged under 40 years who have not conceived after 2 years of regular unprotected intercourse or 12 cycles of artificial insemination (where 6 or more are by intrauterine insemination), offer 3 full cycles of IVF, with or without ICSI. If the woman reaches the age of 40 during treatment, complete the current full cycle but do not offer further full cycles. [new 2013] (1.11.1.3)	Replaced by: Offer IVF treatment for people under 42 years if: • there is a diagnosed cause of infertility, for example, severe endometriosis, tubal obstruction, anovulation with failure of ovulation induction, severe male factor fertility problems or • they have a condition that reduces the likelihood of spontaneous conception (for example, mild endometriosis, mild male factor fertility problems) and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without IUI (see recommendation 1.8.3) or • they have unexplained fertility problems and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without intrauterine inseminations (see recommendation 1.8.3) or • they have not spontaneously conceived after 12 cycles of artificial insemination. [2026] (1.9.3) and If a person is under 40 years and meets the criteria in recommendation 1.9.3, offer an initial 3 full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not offer any more cycles. [2026] (1.9.4) and

Recommendation in 2013 guideline	Comment
	If a person is under 40 years and has not conceived after 3 full cycles of IVF treatment: • discuss the probability of success and the implications of more treatment and • consider up to 3 further full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not consider any more cycles. [2026] (1.9.5)
In women aged 40 to 42 years who have not conceived after 2 years of regular unprotected intercourse or 12 cycles of artificial insemination (where 6 or more are by intrauterine insemination), offer 1 full cycle of IVF, with or without ICSI, provided the following 3 criteria are fulfilled: • they have never previously had IVF treatment • there is no evidence of low ovarian reserve (see recommendation 1.3.3.2) • there has been a discussion of the additional implications of IVF and pregnancy at this age. [new 2013] (1.11.1.4)	Replaced by: Offer IVF treatment for people under 42 years of age if: • there is a diagnosed cause of infertility, for example, severe endometriosis, tubal obstruction, anovulation with failure of ovulation induction, severe male factor fertility problems or • they have conditions that reduce the likelihood of spontaneous conception (for example mild endometriosis, mild male factor fertility problems) and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without intrauterine inseminations (see recommendation 1.8.3) or • they have unexplained fertility problems and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without intrauterine inseminations (see recommendation 1.8.3) or • they have not spontaneously conceived after 12 cycles of artificial insemination. [2026] (1.9.3) and If a person is under 40 years and meets the criteria in recommendation 1.9.3, offer an initial 3 full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete

Recommendation in 2013 guideline	Comment
	any current full cycle of IVF but do not offer any more cycles. [2026] (1.9.4) and If a person is under 40 years and has not conceived after 3 full cycles of IVF treatment: • discuss the probability of success and the implications of more treatment and • consider up to 3 further full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not consider any more cycles. [2026] (1.9.5)
Where investigations show there is no chance of pregnancy with expectant management and where IVF is the only effective treatment, refer the woman directly to a specialist team for IVF treatment. [new 2013] (1.11.1.5)	Replaced by: Offer IVF treatment for people under 42 years of age if: • there is a diagnosed cause of infertility, for example, severe endometriosis, tubal obstruction, anovulation with failure of ovulation induction, severe male factor fertility problems or • they have conditions that reduce the likelihood of spontaneous conception (for example mild endometriosis, mild male factor fertility problems) and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without intrauterine inseminations (see recommendation 1.8.3) or • they have unexplained fertility problems and have not conceived after 2 years of regular unprotected vaginal intercourse, with or without intrauterine inseminations (see recommendation 1.8.3) or • they have not spontaneously conceived after 12 cycles of artificial insemination. [2026] (1.9.3)

Recommendation in 2013 guideline	Comment
	and If a person is under 40 years and meets the criteria in recommendation 1.9.3, offer an initial 3 full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not offer any more cycles. [2026] (1.9.4) and If a person is under 40 years and has not conceived after 3 full cycles of IVF treatment: • discuss the probability of success and the implications of more treatment and • consider up to 3 further full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not consider any more cycles. [2026] (1.9.5)
Take into account the outcome of previous IVF treatment when assessing the likely effectiveness and safety of any further IVF treatment. [new 2013] (1.11.1.7)	Replaced by: If a person is under 40 years and has not conceived after 3 full cycles of IVF treatment: • discuss the probability of success and the implications of more treatment and • consider up to 3 further full cycles of IVF treatment. If they reach their 40th birthday without conceiving, complete any current full cycle of IVF but do not consider any more cycles. [2026] (1.9.5)
The safe practice of administering sedative drugs published by the Academy of Medical Royal Colleges should be followed. [2004] (1.12.5.2)	This recommendation was deleted because this is part of routine clinical practice and is not specific to oocyte retrieval.
Surgical sperm recovery before ICSI may be performed using several different techniques depending on the pathology and wishes of the man. In all cases, facilities for cryopreservation of spermatozoa should be available. [2004] (1.12.5.4)	The recommendation was deleted because it was non-specific and not particularly helpful.

Recommendation in 2013 guideline	Comment
There is insufficient evidence to recommend the use of gamete intrafallopian transfer or zygote intrafallopian transfer in preference to IVF in couples with unexplained fertility problems or male factor fertility problems. [2004] (1.12.8.1)	This recommendation was deleted because these are no longer part of current clinical practice.
The recognised indications for treatment by intracytoplasmic sperm injection (ICSI) include: • severe deficits in semen quality • obstructive azoospermia • non-obstructive azoospermia. In addition, treatment by ICSI should be considered for couples in whom a previous IVF treatment cycle has resulted in failed or very poor fertilisation. [2004] (1.13.1.1)	This recommendation was deleted because it was not considered helpful in current practice. It was replaced by: Offer ICSI for people using surgically retrieved sperm or frozen-thawed oocytes. [2026] (1.11.1) Consider ICSI for: • men, trans women and non-binary people with male reproductive organs who have abnormal semen parameters, taking into account severity • couples in whom a previous IVF treatment cycle has resulted in failed or very poor fertilisation. [2026] (1.11.2) Do not use ICSI for non-male factor fertility problems or for men, trans women and non-binary people with male reproductive organs with normal semen parameters. [2026] (1.11.3) Do not use intracytoplasmic morphologically selected sperm injection (IMSI) as an adjunct to ICSI. [2026] (1.11.4) Do not use physiological intracytoplasmic sperm injection (PICSI) in preference to standard ICSI. [2026] (1.11.5)
Before considering treatment by ICSI, people should undergo appropriate investigations, both to establish a diagnosis and to enable informed discussion about the implications of treatment. [2004, amended 2013] (1.13.2.1)	The recommendation was deleted because it is non-specific and therefore not particularly helpful.
Before treatment by ICSI, consideration should be given to relevant genetic issues. [2004] (1.13.2.2)	The recommendation was deleted because it is non-specific and therefore not particularly helpful.

Recommendation in 2013 guideline	Comment
Where a specific genetic defect associated with male infertility is known or suspected, couples should be offered appropriate genetic counselling and testing. [2004] (1.13.2.3)	The recommendation was deleted because it is non-specific and therefore not particularly helpful. It was replaced by: Perform testing for Y chromosome microdeletion in men, trans women and non-binary people with male reproductive organs who have idiopathic azoospermia (see recommendation 1.4.8). [2026] (1.3.6) Perform testing for cystic fibrosis transmembrane conductance regulator in men, trans women and non-binary people with male reproductive organs who have obstructive azoospermia and/or vasal abnormality on examination, or if either partner has a family history of cystic fibrosis. [2026] (1.3.7) Perform testing for karyotype abnormalities in men, trans women and non-binary people with male reproductive organs who have idiopathic azoospermia. [2026] (1.3.8) Consider testing for karyotype abnormalities in men, trans women and non-binary people with male reproductive organs who have a very low sperm count. [2026] (1.3.9) Offer appropriate genetic counselling for men, trans women and non-binary people who have a specific genetic defect associated with male infertility. [2026] (1.3.10)
Where the indication for ICSI is a severe deficit of semen quality or non-obstructive azoospermia, the man's karyotype should be established. [2004] (1.13.2.4)	Replaced by: Perform testing for karyotype abnormalities in men, trans women and non-binary people with male reproductive organs who have idiopathic azoospermia. [2026] (1.3.8) Consider testing for karyotype abnormalities in men, trans women and non-binary people with male reproductive organs who have a very low sperm count. [2026] (1.3.9)
Men who are undergoing karyotype testing should be offered genetic counselling regarding the genetic abnormalities that may be detected. [2004] (1.13.2.5)	Replaced by: Offer appropriate genetic counselling for men, trans women and non-binary people who have a specific genetic defect associated with male infertility. [2026] (1.3.10)

Recommendation in 2013 guideline	Comment
Testing for Y chromosome microdeletions should not be regarded as a routine investigation before ICSI. However, it is likely that a significant proportion of male infertility results from abnormalities of genes on the Y chromosome involved in the regulation of spermatogenesis, and couples should be informed of this. [2004] (1.13.2.6)	Replaced by: Perform testing for Y chromosome microdeletion in men, trans women and non-binary people with male reproductive organs who have idiopathic azoospermia (see recommendation 1.4.8). [2026] (1.3.6)
Couples should be informed that ICSI improves fertilisation rates compared with IVF alone, but once fertilisation is achieved, the pregnancy rate is no better than with IVF. [2004] (1.13.3.1)	This recommendation was deleted as it was not considered helpful. It was replaced by: Do not use ICSI for non-male factor fertility problems or for men, trans women and non-binary people with male reproductive organs who have normal semen parameters. [2026] (1.11.3)
When considering and using cryopreservation for people before starting chemotherapy or radiotherapy that is likely to affect their fertility, follow recommendations in the guidance on management on the effects of cancer treatment on reproductive functions (2007) by the Royal College of Physicians, the Royal College of Radiologists, the Royal College of Obstetricians and Gynaecologists. [2013] (1.16.1.1)	The recommendation was deleted as it was not considered needed anymore.
At diagnosis, the impact of the cancer and its treatment on future fertility should be discussed between the person diagnosed with cancer and their cancer team. [new 2013] (1.16.1.2)	This recommendation was deleted because it is more relevant for cancer guidelines rather than fertility problems guideline. Part of good standard practice.
When deciding to offer fertility preservation to people diagnosed with cancer, take into account the following factors: • diagnosis • treatment plan • expected outcome of subsequent fertility treatment • prognosis of the cancer treatment • viability of stored or post-thawed material. [new 2013] (1.16.1.3)	This recommendation was deleted because it is more relevant for cancer guidelines rather than fertility problems guideline. Part of good standard practice.
Do not use a lower age limit for cryopreservation for fertility preservation in people diagnosed with cancer. [new 2013] (1.16.1.5)	Replaced by adding 'including lower age limit' to the following recommendation: For NHS-funded fertility preservation, do not apply the eligibility criteria used for conventional fertility treatment,

Recommendation in 2013 guideline	Comment
	including lower age limit. [2013, amended 2026] (1.14.2)
When using cryopreservation to preserve fertility in people diagnosed with cancer, use sperm, embryos or oocytes. [new 2013] (1.16.1.7)	This recommendation was deleted because the population is now wider and the materials to be preserved are mentioned in subsequent recommendations.
Offer sperm cryopreservation to men and adolescent boys who are preparing for medical treatment for cancer that is likely to make them infertile. [new 2013] (1.16.1.8)	Replaced by: Offer sperm cryopreservation to men (and adolescent boys), trans women and non-binary people with male reproductive organs who are preparing for medical treatment, or have a medical condition, that is likely to make them infertile. [2026] (1.14.4)
Use freezing in liquid nitrogen vapour as the preferred cryopreservation technique for sperm. [new 2013] (1.16.1.9)	This recommendation was deleted because this is standard practice and no longer needed.
Offer oocyte or embryo cryopreservation as appropriate to women of reproductive age (including adolescent girls) who are preparing for medical treatment for cancer that is likely to make them infertile if: • they are well enough to undergo ovarian stimulation and egg collection and • this will not worsen their condition and • enough time is available before the start of their cancer treatment. [new 2013] (1.16.1.10)	Replaced by: Offer oocyte or embryo cryopreservation (as appropriate) to women (and adolescent girls), trans men and non-binary people with female reproductive organs who are of reproductive age and are preparing for medical treatment, or have a medical condition, that is likely to make them infertile. [2026] (1.14.5)
In cryopreservation of oocytes and embryos, use vitrification instead of controlled-rate freezing if the necessary equipment and expertise is available. [new 2013] (1.16.1.11)	This recommendation was deleted because it is no longer needed.
Store cryopreserved material for an initial period of 10 years. [new 2013] (1.16.1.12)	Replaced by: Organise follow-ups at least every 5 years with people who have had their material preserved to determine whether or not there is a need to continue NHS-funded storage. Offer continued storage for people who remain at continued significant risk of infertility in line with legislation on consent. (1.14.7)
Offer continued storage of cryopreserved sperm, beyond 10 years, to men who remain at risk of significant infertility. [new 2013] (1.16.1.13)	Replaced by: Organise follow-ups at least every 5 years with people who have had their material preserved to determine

Recommendation in 2013 guideline	Comment
	whether or not there is a need to continue NHS-funded storage. Offer continued storage for people who remain at continued significant risk of infertility in line with legislation on consent. (1.14.7)
Research recommendation 2 Embryo selection for single embryo transfer: Further research is needed to improve embryo selection to facilitate single embryo transfers. [2013]	This research recommendation was deleted as it is not specific enough.
Research recommendation 3 Adjuvant luteal phase support treatments in IVF: Further research is needed to assess the efficacy of adjuvant luteal phase support treatments such as low-dose aspirin, heparin, prednisolone, immunoglobulins and/or fat emulsions. [2013]	This research recommendation was deleted because is it no longer relevant.

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2 Table 4 Amended recommendation wording (change to intent) without an 3 evidence review

Recommendation in 2013 guideline	Recommendation in current guideline	Reason for change
People should have the opportunity to make informed decisions regarding their care and treatment via access to evidence-based information. These choices should be recognised as an integral part of the decision-making process. Verbal information should be supplemented with written information or audio-visual media. [2004] (1.1.1.2)	Ensure that people have the opportunity to make informed decisions about their care and treatment via access to evidence-based information. Recognise these choices as an integral part of the decision-making process. Supplement verbal information with written or online information, for example, information on the Human Fertilisation and Embryology Authority (HFEA) website. [2004, amended 2026] (1.1.2)	Link to HFEA information resources added.
People who experience fertility problems should be informed that they may find it helpful to contact a fertility support group. [2004] (1.1.2.2)	Inform people who experience fertility problems that they may find it helpful to contact a peer group or other relevant organisation for support. [2004, amended 2026] (1.1.5)	The committee did not consider the wording 'fertility support group' to be used in practice and so referred to peer groups or other relevant

		organisations instead.
Inform people who are using artificial insemination to conceive and who are concerned about their fertility that: - over 50% of women aged under 40 years will conceive within 6 cycles of intrauterine insemination (IUI) - of those who do not conceive within 6 cycles of intrauterine insemination, about half will do so with a further 6 cycles (cumulative pregnancy rate over 75%). [2013] (1.2.1.2)	Inform people who are using artificial insemination to conceive and who are concerned about their fertility that: - over 55% of women aged under 40 years will conceive within 6 cycles of intrauterine insemination (IUI) - of those who do not conceive within 6 cycles of IUI, about half will do so with a further 6 cycles (cumulative pregnancy rate over 79%). [2013, amended 2026] (1.2.2)	Figures updated with newer data from the HFEA.
Inform people who are concerned about their fertility, that female fertility (and to a lesser extent) male fertility declines with age. [new 2013] (1.2.1.4)	Inform people who are concerned about their fertility, that female fertility and (to a lesser extent) male fertility declines with age. See figure 1. [2013, amended 2026] (1.2.3)	Reference to Figure 1 added and Figure 1 has been updated with newer data.
Discuss chances of conception with people concerned about their fertility who are: having sexual intercourse (see table 1) or using artificial insemination (see table 2). [2013, amended 2026] (1.2.1.5)	Discuss the chances of conception with people concerned about their fertility who are: having unprotected vaginal sexual intercourse (see table 1) or using artificial insemination (see table 2). [2013, amended 2026] (1.2.4)	The recommendation clarifies unprotected vaginal sexual intercourse. The figures in table 2 have been updated with newer data from the HFEA.
Women who are trying to become pregnant should be informed that drinking no more than 1 or 2 units of alcohol once or twice per week and avoiding episodes of intoxication reduces the risk of harming a developing fetus. [2004] (1.2.3.1)	Inform women, trans men and non-binary people with female reproductive organs who are trying to become pregnant that drinking no more than 1 or 2 units of alcohol once or twice per week and avoiding episodes of intoxication reduces the risk of harming a developing fetus. Advise them that, according to the Chief Medical Officer's alcohol	The recommendation now refers to the Chief Medical Officer's recommendations, published in 2016.

	guidance, the safest approach is to avoid alcohol altogether. [2004, amended 2026] (1.2.7)	
Men should be informed that alcohol consumption within the Department of Health and Social Care's recommendations of 3 to 4 units per day for men is unlikely to affect their semen quality. [2004, amended 2013] (1.2.3.2)	Inform men, trans women and non-binary people with male reproductive organs that: • excessive alcohol intake is detrimental to semen quality • drinking within the limits of the weekly drinking guidance in the UK Chief Medical Officer's low risk drinking guidance, if spread across several days, for example up to 2 units per day, is unlikely to affect their semen quality. [2004, amended 2026] (1.2.8)	Two recommendations were combined into one and the recommendation now refers to the Chief Medical Officer's recommendations, published in 2016.
Men should be informed that excessive alcohol intake is detrimental to semen quality. [2004] (1.2.3.3)	Inform men, trans women and non-binary people with male reproductive organs that: • excessive alcohol intake is detrimental to semen quality • drinking within the limits of the weekly drinking guidance in the UK Chief Medical Officer's low risk drinking guidance, if spread across several days, for example up to 2 units per day, is unlikely to affect their semen quality. [2004, amended 2026] (1.2.8)	The recommendation was combined with another recommendation.
People who are concerned about their fertility should be informed that there is no consistent evidence of an association between consumption of caffeinated beverages (tea, coffee and	Inform people who are concerned about their fertility that there is no consistent evidence of an association between consumption of caffeinated beverages (tea, coffee, energy drinks and	Energy drinks were included in the list of examples.

colas) and fertility problems. Also see recommendation 1.10.5.3 about caffeine intake and in vitro fertilisation (IVF) treatment. [2004] (1.2.5.1)	colas) and fertility problems. [2004, amended 2026] (1.2.13)	
Women who have a BMI of less than 19 and who have irregular menstruation or are not menstruating should be advised that increasing body weight is likely to improve their chance of conception. [2004] (1.2.7.1)	Advise women, trans men and non-binary people with female reproductive organs who have a BMI of less than 18.5 kg/m ² and who have irregular menstruation or are not menstruating that increasing body weight is likely to improve their chance of conception. [2004, amended 2026] (1.2.17)	Threshold for underweight BMI category updated.
Some occupations involve exposure to hazards that can reduce male or female fertility and therefore a specific enquiry about occupation should be made to people who are concerned about their fertility, and appropriate advice should be offered. [2004] (1.2.9.1)	Some occupations involve exposure to hazards that can reduce fertility. Ask about the occupation of people who are concerned about their fertility, and if necessary, direct them to appropriate advice. [2004, amended 2026] (1.2.19)	Clinicians may not have the appropriate expertise to advise and so it is more appropriate to say they should be directed to appropriate advice.
A number of prescription, over-the-counter and recreational drugs interfere with male and female fertility, and therefore a specific enquiry about these should be made to people who are concerned about their fertility, and appropriate advice should be offered. [2004] (1.2.10.1)	A number of prescription, over-the-counter and recreational drugs (including androgenic compounds such as anabolic steroids) interfere with fertility. Ask people who are concerned about their fertility if they are taking any prescription or over-the-counter medicines, or recreational drugs, and offer appropriate advice. [2004, amended 2026] (1.2.20)	Androgenic compounds such as anabolic steroids added as an example of drugs that may interfere with fertility.
Women intending to become pregnant should be informed that dietary supplementation with folic acid before conception and up to 12 weeks' gestation reduces the risk of having a baby with neural tube defects. The recommended dose is 0.4 mg per day. For women who have previously had an infant	For advice on folic acid supplementation in women and anyone who is intending to become pregnant see the NICE guideline on maternal and child nutrition. [2004, amended 2026] (1.2.22)	Another NICE guideline covers folic acid before and during pregnancy.

with a neural tube defect or who are receiving anti-epileptic medication or who have diabetes (see the NICE guideline on diabetes in pregnancy), a higher dose of 5 mg per day is recommended. (1.2.12.1)		
A woman of reproductive age who has not conceived after 1 year of unprotected vaginal sexual intercourse, in the absence of any known cause of infertility, should be offered further clinical assessment and investigation along with her partner. [new 2013] (1.2.13.5)	If a woman, trans man or non-binary person with female reproductive organs of reproductive age has not conceived after 1 year of unprotected vaginal sexual intercourse, in the absence of any suspected or known clinical cause of infertility, offer both partners further clinical assessment and investigation. [2013, amended 2026] (1.2.27)	'Suspected' added because in addition to a known cause, a suspected cause also warrants an early referral (see recommendation 1.2.30).
A woman of reproductive age who is using artificial insemination to conceive (with either partner or donor sperm) should be offered further clinical assessment and investigation if she has not conceived after 6 cycles of treatment, in the absence of any known cause of infertility. Where this is using partner sperm, the referral for clinical assessment and investigation should include her partner. [new 2013] (1.2.13.6)	If a woman, trans man or non-binary person with female reproductive organs is using artificial insemination to conceive, offer further clinical assessment and investigation if they have not conceived after 6 cycles of insemination, in the absence of any suspected or known clinical cause of infertility. Where this is using partner sperm, the referral for clinical assessment and investigation should include her partner. [2013, amended 2026] (1.2.28)	Recommendation simplified and 'suspected' added because in addition to a known cause, a suspected cause also warrants an early referral (see recommendation 1.2.30).
People who are concerned about their fertility and who are known to have chronic viral infections such as hepatitis B, hepatitis C or HIV, should be referred to centres that have appropriate expertise and facilities to provide safe risk-reduction investigation and treatment. [2004] (1.2.13.9)	Ensure appropriate advice is provided to people who have chronic viral infections such as hepatitis B, hepatitis C or HIV and have concerns about their fertility. See the section on viral transmission. [2004, amended 2026] (1.2.32)	There is usually no need for a referral at this stage of the pathway when fertility treatment is not yet planned. However, appropriate advice should be provided. A link to the section viral transmission was added.
The results of semen analysis conducted as part of an initial assessment should	Compare the results of semen analysis conducted as part of an initial	The recommendation has been amended to reflect the updated

be compared with the following World Health Organization reference values: • semen volume: 1.5 ml or more • pH: 7.2 or more • sperm concentration: 15 million spermatozoa per ml or more • total sperm number: 39 million spermatozoa per ejaculate or more • total motility (percentage of progressive motility and non-progressive motility): 40% or more motile or 32% or more with progressive motility • vitality: 58% or more live spermatozoa • sperm morphology (percentage of normal forms): 4% or more. [2004, amended 2013] Please note the reference ranges are only valid for the semen analysis tests outlined by the World Health Organization. (1.3.1.1)	assessment with the following World Health Organization (WHO) reference values (see the WHO laboratory manual for the examination and processing of human semen): • semen volume: 1.4 ml or more (95% confidence interval [CI] 1.3 to 1.5) • pH: 7.2 or more • sperm concentration: 16 million spermatozoa per ml or more (95% CI 15 to 18) • total sperm number: 39 million spermatozoa per ejaculate or more (95% CI 35 to 40) • total motility (percentage of progressive motility and non-progressive motility): 42% or more motile (95% CI 40 to 43) or 30% or more with progressive motility (95% CI 29 to 31) • vitality: 54% or more live spermatozoa (95% CI 50 to 56) • sperm morphology (percentage of normal forms): 4% or more (95% CI 3.9 to 4.0). [2004, amended 2026] Please note the reference ranges are only valid for the semen analysis tests outlined by the World Health Organization. (1.3.1)	WHO reference values and 95% confidence intervals have been added. A link to the WHO manual added.
Use a woman's age as an initial predictor of her overall chance of success through natural conception (see figure 1) or with IVF (see	Use maternal age as an initial predictor of the overall chance of becoming pregnant through spontaneous conception	Figure 2 updated with newer data from HFEA.

figure 2). [new 2013] (1.3.3.1)	(see figure 1 on the effect of maternal age on pregnancy rate) or with IVF (see figure 2 on in vitro fertilisation (IVF) success in terms of live births per embryo transfer by age). [2013, amended 2026] (1.3.13)	
Women should not be offered hysteroscopy on its own as part of the initial investigation unless clinically indicated because the effectiveness of surgical treatment of uterine abnormalities on improving pregnancy rates has not been established. [2004] (1.3.8.4)	Do not offer hysteroscopy unless a uterine or endometrial abnormality is clinically suspected. [2004, amended 2026] (1.3.27)	Recommendation clarified and simplified.
Women who are concerned about their fertility should be offered testing for their rubella status so that those who are susceptible to rubella can be offered vaccination. Women who are susceptible to rubella should be offered vaccination and advised not to become pregnant for at least 1 month following vaccination. [2004, amended 2013] (1.3.11.1)	Offer women, trans men and non-binary people with female reproductive organs who are concerned about their fertility and have not been, or are uncertain if they have been, vaccinated for rubella, testing for their rubella status so that those who are susceptible to rubella can be offered vaccination. [2013, amended 2026] (1.3.39) Offer rubella vaccination to those who are susceptible and advise not to become pregnant for at least 1 month following vaccination. [2013, amended 2026] (1.3.40)	The recommendation was amended because NHS vaccination schedule has included measles, mumps and rubella (MMR) vaccine since 1988. Therefore, many people in reproductive age have already been vaccinated against rubella. The recommendation was also split into 2 for clarity.
Consider unstimulated intrauterine insemination as a treatment option in the following groups as an alternative to vaginal sexual intercourse: people who are unable to, or would find it very difficult to, have vaginal intercourse because of a clinically diagnosed physical disability or psychosexual	Offer 12 cycles of unstimulated IUI (providing there are no contraindications) as a treatment option for: people who are unable to, or would find it very difficult to, have vaginal intercourse because of a clinically diagnosed physical disability or psychosexual problem who are	The 2013 recommendations in this section included a first recommendation to consider unstimulated IUI as a treatment option and a second recommendation to offer further 6 cycles of unstimulated IUI before IVF is considered. The committee thought it was unusual and

problem who are using partner or donor sperm - people with conditions that require specific consideration in relation to methods of conception (for example, after sperm washing where the man is HIV positive) - people in same-sex relationships. [2013] (1.9.1.1)	using partner or donor sperm people with conditions that require specific consideration in relation to methods of conception (for example, after sperm washing). [2013, amended 2026] (1.7.1)	confusing to 'consider' the treatment for the first 6 cycles and then 'offer' the further 6 cycles. So the committee agreed that 12 cycles should be offered before IVF is considered for populations where conception through vaginal sexual intercourse is not an option because of health-related issues. Same-sex couples were removed from the recommendation because for anyone using artificial insemination to conceive for non-health-related reasons, unless they have a known health-related fertility problem, the first 6 cycles of artificial insemination are not within the remit of this guideline as defined in the scope. (See also next recommendation.)
For people in recommendation 1.9.1.1 who have not conceived after 6 cycles of donor or partner insemination, despite evidence of normal ovulation, tubal patency and semen analysis, offer a further 6 cycles of unstimulated intrauterine insemination before IVF is considered. [2013] (1.9.1.2)	Offer 6 cycles of unstimulated IUI (providing there are no contraindications) for people who have not conceived after 6 cycles of donor insemination (see recommendation 1.2.28) before considering IVF. [2013, amended 2026] (1.7.2)	The 2013 recommendations in this section included a first recommendation to consider unstimulated IUI as a treatment option and a second recommendation to offer further 6 cycles of unstimulated IUI before IVF is considered. The committee thought it was unusual and confusing to 'consider' the

		treatment for the first 6 cycles and then 'offer' the further 6 cycles so the committee agreed that 12 cycles should be offered before IVF is considered for populations in whom conception by vaginal sexual intercourse is not an option because of health-related issues (see previous recommendation). For people using artificial insemination for a non-health-related reason, the first 6 cycles of artificial insemination are not within the remit of this guideline. If they have not conceived within the first 6 cycles of insemination, they would then be considered to have a health-related fertility problem, as defined in the scope of this guideline, and further clinical investigation and assessment should be offered (see recommendation 1.2.29). Any further cycles of artificial insemination, unless contraindicated by, for example, a known cause of infertility, should therefore be offered treatment according to the 2013 recommendation.
Advise women with unexplained infertility who are having regular	Advise people with unexplained fertility problems, mild endometriosis	The population was expanded to include those with mild

unprotected sexual intercourse to try to conceive for a total of 2 years (this can include up to 1 year before their fertility investigations) before IVF will be considered. [new 2013] (1.8.1.3)	or mild male factor fertility problems who are having regular unprotected vaginal sexual intercourse to try to conceive for a total of 2 years before treatment. [2013, amended 2026] (1.8.1)	endometriosis and mild male factor fertility problems. The text in brackets was taken out as the committee thought it is unfair that people who have tried to conceive for more than a year (sometimes several years) before investigations would have to wait another year before treatment is considered. 'IVF' was changed to 'treatment' as IUI can also be considered as a treatment option.
In women aged under 40 years, any previous full IVF cycle, whether self- or NHS-funded, should count towards the total of 3 full cycles that should be offered by the NHS. [2013] (1.11.1.6)	For those under 40 years, any previous full IVF cycle, whether self- or NHS-funded, should count towards the total number of full cycles that should be offered by the NHS. Previous self-funded IVF treatment should not preclude NHS-funded IVF treatment. [2013, amended 2026] (1.9.6)	In current practice in some areas people are not offered NHS-funded IVF cycles if they have had any self-funded IVF treatment. So the committee made it explicit in the recommendation that previous self-funded IVF treatment should not preclude anyone receiving NHS-funded IVF treatment, as long as the total number of IVF cycles are within the recommended limits. The committee noted that this could lead to cost savings for the NHS because people might seek self-funded IVF while waiting for NHS-funded IVF and around a third of these people would conceive and no longer need NHS-funded IVF.

Evaluate embryo quality, at both cleavage and blastocyst stages, according to the Association of Clinical Embryologists (ACE) and UK National External Quality Assessment Service (UK NEQAS) for Reproductive Science Embryo and Blastocyst Grading schematic (see figure 3). [new 2013] (1.12.6.4)	Evaluate embryo quality, at both cleavage and blastocyst stages, according to the Association of Reproductive and Clinical Scientists (ARCS) and UK National External Quality Assessment Service (UK NEQAS) Embryo Grading Scheme . [2013, amended 2026] (1.10.28)	Figure replaced by a link and ACE replaced by ARCS.
Couples considering donor insemination should be offered counselling from someone who is independent of the treatment unit regarding all the physical and psychological implications of treatment for themselves and potential children. [2004] (1.14.2.2)	Offer sperm recipients and donors counselling from someone who is independent of the treatment unit regarding the implications of treatment in line with the HFEA code of practice . [2004, amended 2026] (1.12.4)	Recommendation simplified and reference to HFEA code of practice added.
Units undertaking semen donor recruitment and the cryopreservation of donor spermatozoa for treatment purposes should follow the UK guidelines for the medical and laboratory screening of sperm, egg and embryo donors (2008) describing the selection and screening of donors. This recommendation has been updated to reflect a new guideline issued by the joint working party of Association of Biomedical Andrologists (ABA), Association of Clinical Embryologists (ACE), British Andrology Society (BAS), British Fertility Society (BFS) and Royal College of Obstetricians and Gynaecologists (RCOG). [2004, amended 2013] (1.14.3.1)	Units undertaking semen donor recruitment and the cryopreservation of donor spermatozoa for treatment purposes should follow the UK guidelines for the medical and laboratory procurement and use screening of sperm, oocyte and embryo donors (2019) describing the selection and screening of donors. [2004, amended 2026] (1.12.5)	The UK guidelines referred to in the recommendation was updated in 2019 and so the recommendation was amended to reflect this. Text about the recommendation been updated was removed.
Before donation is undertaken, oocyte donors should be screened for both infectious and genetic diseases in accordance with the UK guidelines for the medical and laboratory	Before donation is undertaken, screen oocyte donors for both infectious and genetic diseases in accordance with the UK guidelines for the medical and laboratory procurement	The UK guidelines referred to in the recommendation was updated in 2019 and so the recommendation was amended to

screening of sperm, egg and embryo donors (2008). This recommendation has been updated to reflect a new guideline issued by the joint working party of Association of Biomedical Andrologists (ABA), Association of Clinical Embryologists (ACE), British Andrology Society (BAS), British Fertility Society (BFS) and Royal College of Obstetricians and Gynaecologists (RCOG). [2004, amended 2013] (1.15.2.1)	and use of sperm, oocyte and embryo donors (2019) . [2004, amended 2026] (1.13.2)	reflect this. Text about the recommendation been updated was removed.
Oocyte recipients and donors should be offered counselling from someone who is independent of the treatment unit regarding the physical and psychological implications of treatment for themselves and their genetic children, including any potential children resulting from donated oocytes. [2004] (1.15.3.2)	Offer oocyte recipients and donors counselling from someone who is independent of the treatment unit regarding the implications of treatment, in line with the HFEA code of practice . [2004, amended 2026] (1.13.4)	Recommendation simplified and reference to HFEA code of practice added.
For cancer-related fertility preservation, do not apply the eligibility criteria used for conventional infertility treatment. [new 2013] (1.16.1.4)	For NHS-funded fertility preservation, do not apply the eligibility criteria used for conventional fertility treatment, including lower age limit . [2013, amended 2026] (1.14.2)	Indication for fertility preservation now wider than just cancer.
Inform people diagnosed with cancer that the eligibility criteria used in conventional infertility treatment do not apply in the case of fertility cryopreservation provided by the NHS. However, those criteria will apply when it comes to using stored material for assisted conception in an NHS setting. [new 2013] (1.16.1.6)	Inform people considering fertility preservation that eligibility criteria for assisted conception in an NHS setting will apply when it comes to using stored material . [2013, amended 2026] (1.14.3)	Population widened and recommendation wording simplified.

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