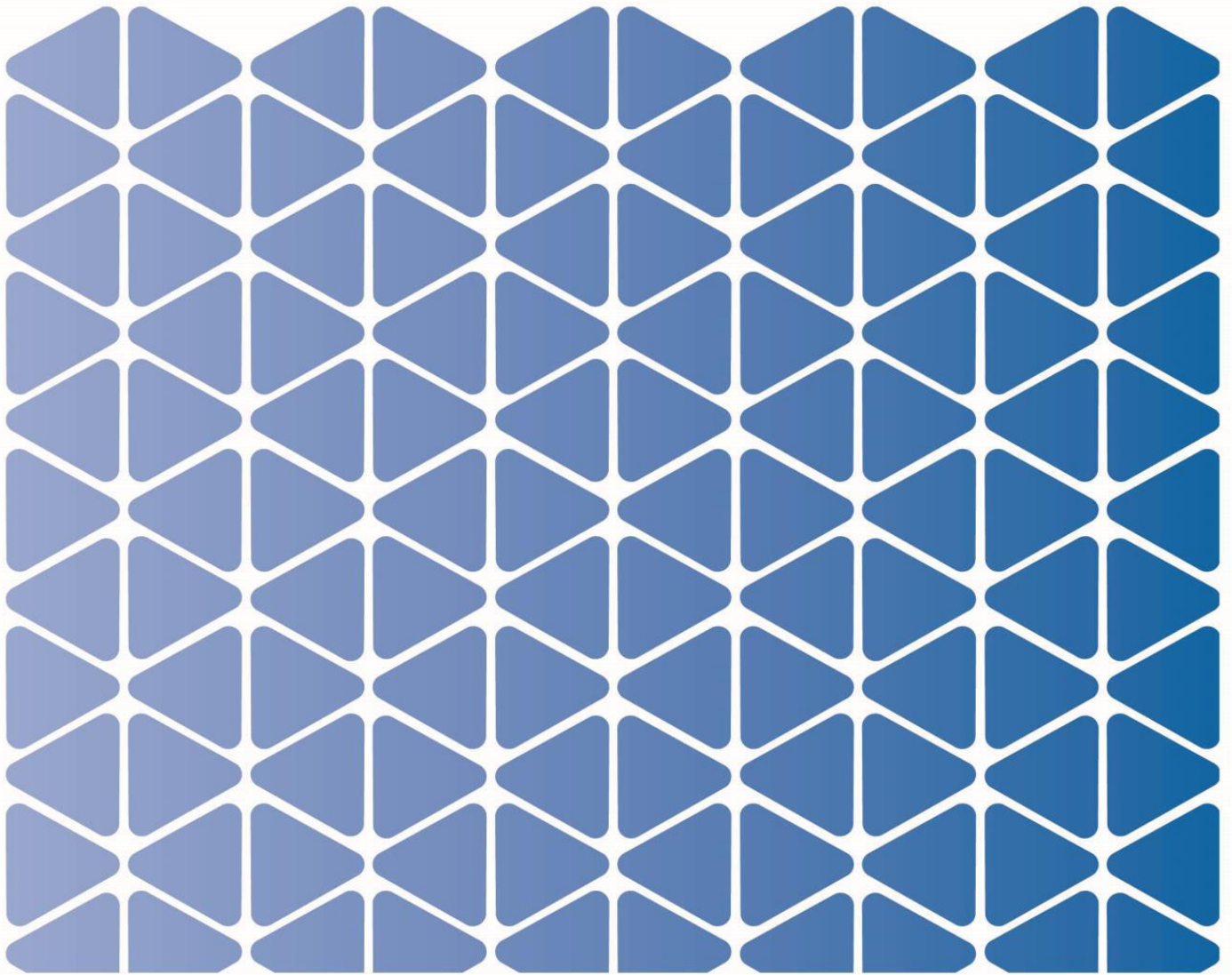




PATIENT INFORMATION

YOU AND YOUR FERTILITY JOURNEY



Please place patients sticker
here

Our Fertility Team

Kiritea Brown, Obstetric & Gynaecology Consultant

Jon Hughes, Obstetric & Gynaecology Consultant

Abi Abimanue Obstetric & Gynaecology
Associate Specialist

Danielle Williams, Fertility Specialist Nurse

Welcome to the Fertility Service at Worcestershire Acute Hospitals Trust.

Our highly experienced team is dedicated to offering a high standard of specialised care to you from your initial consultation and beyond.

During this time we will work closely together with you to carry out appropriate investigations, plan & provide treatment where possible and make onward referrals for assisted conception as required.

Our practice is evidence-based and in concordance with the NICE guidelines.

This booklet is to provide you with information that we hope that you will find helpful along the way.

Our aim is to consistently provide you with the care and support that you need so please do get in touch us via Danielle Williams, our Fertility Specialist Nurse, with any concerns or queries at:

wah-tr.fertility@nhs.net

We will answer all emails as soon as possible, but please email again if you have not received a reply after 5 working days.

If you have an urgent query, please contact your consultants secretary (via switchboard on 01905 760760). If you require urgent medical assistance, then please contact your GP or 111.

Following your clinic visit today, you have been advised of the following:

- Day 1 of your cycle/period is the first day you start to bleed properly** (not spotting). Please count from this day onwards to time your blood tests and other investigations.
- On Day 1 of proper bleeding, please email us to arrange a **follicle tracking scan**, so that we can monitor your natural cycle, or response to ovulation induction medication. Please include your name, hospital number, date of birth, and a contact number. Your email will be acknowledged as soon as possible, but please email again if you have not received a reply after 5 working days.
- You have been referred for a Hysterosalpingogram (**HSG**). Once you receive your letter from the X-ray department, follow the instructions and call them on day 1 of your next cycle.
- On days 2 - 5 of your cycle please have a blood test (**FSH and LH**). You have been given forms to have this done in the Phlebotomy Department either within the Clover Suite at Worcestershire Royal Hospital (WRH), at Alexandra Hospital or Kidderminster Treatment Centre or to arrange this with your GP practice.
- On day 2 commence Clomifene citrate (**Clomid**) 50/100/150mg. You are required to take this for 5 days between days 2 - 6 of your period.
- On day 21 of your cycle please have a blood test (**Progesterone**). As above, please arrange this with your GP or use the forms provided in one of our Hospitals' Phlebotomy Departments.
- Please ensure that you are taking a pre-conceptual supplement that includes 400mcg **Folic Acid & Vitamin D** daily. You will be prescribed 5mg of Folic Acid if your BMI is over 29 or you have been specifically told to do so due to your medical history.
- Please ensure you are having **regular intercourse** 2-3 times a week.
- If you have irregular or infrequent periods, you have been prescribed **MPA** (Medroxyprogesterone Acetate) to induce a bleed so that you can start taking the medications as above. If by day 35 since your last bleed you have not had a natural bleed **please do a pregnancy test and if negative**, take the MPA. The dose of MPA is 10mg, three times a day for 7 days. After this if you do not have a bleed please contact us so that we can arrange an alternative medication.

- We have arranged for you to have a **semen analysis (SA)** - For Birmingham Women's & Children's Hospital referrals, please contact them on 0121 335 8100 in 3 weeks if you have not received your appointment.
- For **SA** referrals to BMI The Priory, Edgbaston, please follow the instructions on your copy of the request form to book your appointment.
- In the future you may require further treatment in the form of **Assisted Conception Treatment (e.g. IVF, ICSI)**. Please see the back cover for the referral criteria which needs to be fulfilled to enable you to have this treatment for free on the NHS.
- Assisted Conception Treatment (e.g. IVF, ICSI) has been recommended as the most appropriate treatment. For help deciding which clinic you would like to have your treatment at, please visit the HFEA website for information. www.HFEA.gov.uk. Specialist Fertility clinics often have open evenings and information sessions that can be useful to attend.
- Lifestyle: you have been advised to **lose weight and stop smoking**, and how these can have on fertility.

What Tests have I had and Why?

***FSH (Follicle-stimulating hormone)** – is needed for your body to produce an egg each month. FSH stimulates the growth of follicles in your ovaries, and it is from the 'dominant' follicle that an egg is released (ovulation). If this egg is fertilised by a sperm an embryo can then develop (potential baby). It is measured on day 2-5 of your cycle (day 1 = 1st day of bleeding) with a blood test. FSH needs to be <9.0 to be eligible for an NHS funded Assisted conception (eg. IVF) referral*. FSH naturally goes up with age, especially when you are approaching the menopause, and can indicate a reduction in ovarian reserve.

LH (Luteinizing hormone) – triggers the release (ovulation) of an egg from your ovary. It can be raised in people with PCOS (Polycystic Ovarian Syndrome). LH should be measured on day 2-5 of your cycle with a blood test.

Progesterone – prepares the lining of the womb (endometrium) for the embryo (baby) to implant. It goes up in the second half of your cycle after you ovulate, so is measured to check for ovulation (that you are releasing an egg every month). To confirm ovulation progesterone should be >15 on day 21 of a 28 day cycle (previously it was thought it should be >25).

***AMH (Anti-Mullerian hormone)** – this is a rough marker of the size of your ovarian reserve (the number of eggs you have). It can be measured on any day of your cycle with a blood test. It naturally goes down with age as your ovarian reserve decreases. A lower AMH does not mean you can't get pregnant, but that you may find it slightly harder. It is most useful in predicting response to stimulation drugs used during Assisted conception treatment. AMH needs to be >5.4 to be eligible for an NHS funded Specialist Fertility referral*.

TSH (Thyroid Stimulating Hormone) – Thyroid problems can be associated with infertility problems (lack of ovulation and irregular periods) and miscarriages. In men, they can cause low sperm count and decreased sperm motility. Hypothyroidism (underactive thyroid) may also cause a raised FSH and prolactin.

Prolactin – raised levels cause a decrease in the secretion of FSH, resulting in low oestrogen levels (hypogonadism). In men it causes low testosterone levels and at times erectile dysfunction. Low levels can be associated with ovarian dysfunction and in men premature ejaculation, low sperm count (oligozoospermia) and reduced motility (asthenospermia).

***Follicle tracking USS** – an internal (transvaginal ultrasound) scan that will look at your uterus and ovaries to ensure they look normal. It is done around day 10 of your cycle. We look at how many follicles (eggs) your ovaries are producing, otherwise known as the AFC* (antral follicle count). AFC should be 4 or more to be eligible for an NHS funded Specialist Fertility Treatment referral*. The AFC can also help us to determine your response to any Ovulation Induction Medication (Clomid) we have

given you. This then allows us to make sure you are on the correct dose as quickly as possible and reduce the chance of complications (overstimulation).

Semen Analysis – looks at different aspects of your sperm to see if there are any obvious abnormalities. In the lab they look at the number of sperm, if they can swim, and how fast, and if they look normal. Men also need a normal hormone profile (FSH, LH and testosterone), but these are only checked if the semen analysis is abnormal. A good semen analysis means the hormones are normal.

HSG (Hysterosalpingogram) – an X-ray dye test to check the patency of your tubes. At least one needs to be patent for sperm to get through. Dye is injected through your cervix so that your uterus and tubes can be seen with an X-ray. Occasionally it cannot be carried out in which case you may need a Laparoscopy and tubal dye test (Lap and dye). You must have a normal chlamydia result (urine or swab) prior to having either of these investigations.

Laparoscopy and Dye test – An operation under general anaesthetic (when you are asleep). A fine long camera (scope) is passed through your belly button to look inside you pelvis at your uterus, tubes, ovaries and other organs. Other procedures that could be done at the same time are: dye test to check your tubes are patent (not blocked), ovarian drilling with diathermy in some cases of if you have polycystic ovarian may be appropriate, or if you have an ovarian cyst this can be removed.

Hysteroscopy – this procedure uses a scope to look inside your womb. You may need this procedure if your USS suggested the presence of a polyp (which can be removed at the same time as the procedure). It can be done as an outpatient procedure with you awake and local anaesthetic, or under general anaesthetic when you are asleep.

Clomid – An ovulation induction medication that you may be prescribed if you are not producing or releasing an egg (ovulating). It is common to need these; especially if you have polycystic ovarian syndrome (PCOS). They will only be prescribed if your BMI is 35 or less.

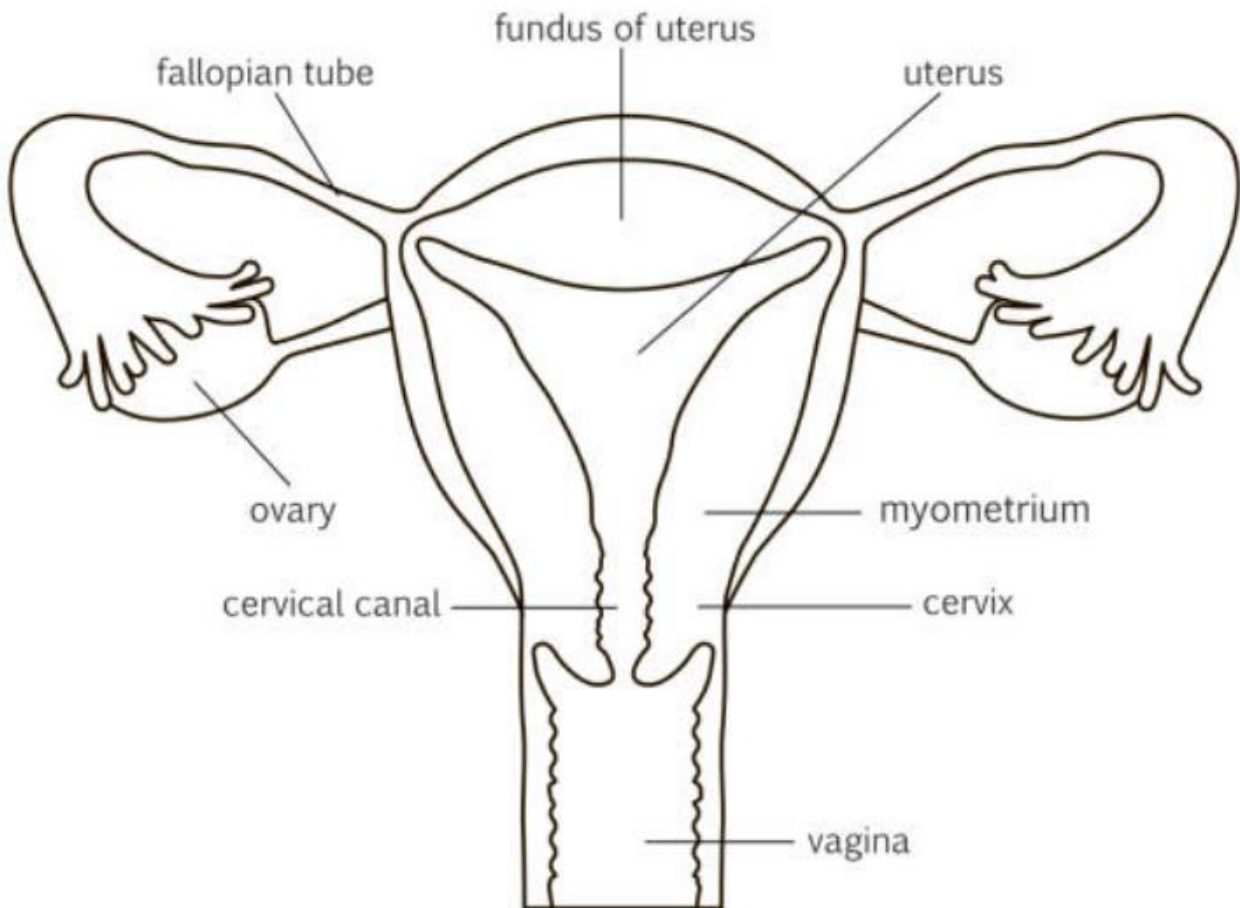
MPA (Medroxyprogesterone Acetate) – you will be prescribed this medication if you do not have regular periods, to induce a withdrawal bleed (fake period).

IVF (In vitro Fertilisation) – your eggs and sperm are collected and fertilised in a sterile plastic dish in a special laboratory. You may be advised this is the best option for you depending on findings of investigations or if you have been trying to conceive for over 2 years and no cause has been found.

ICSI (Intra-cytoplasmic Sperm Injection) – is when the sperm is injected straight into the egg during IVF treatment. This is often recommended when male subfertility is identified or if there has been previous low fertilisation rates during treatment.

Donor sperm IUI – In the absence of a diagnosed reproductive issue same sex couples or single women are required to undergo 6 cycles of self funded donor sperm IUI at a licensed treatment centre to be eligible for NHS funded Specialist Fertility Treatment.

Female Reproductive System



Folic Acid - reduces the risk of having a baby with a neural tube defect, such as Spina Bifida. Women trying to conceive should start taking it 3 months prior to conception. Take **400 micrograms** per day up until 12 weeks of pregnancy. If your **BMI is over 29** and/or you have Diabetes, take anti-epileptic medications, suffer with malabsorption conditions such as inflammatory bowel conditions or previously had a baby with neural tube defect: **Then please take 5mg per day.**

Men Matter

Male investigations:

What are normal Semen Analysis parameters?

Volume	≥ 1.5 ml	Motility (within 60mins of ejaculation)	$\geq 40\%$ (progressive & non-progressive)
Liquefaction time	<60 mins		$\geq 32\%$ progressive motility
pH	≥ 7.2	Vitality	$\geq 58\%$ live
Sperm concentration	≥ 15 million spermatozoa/ml	Total sperm number	≥ 39 million spermatozoa/ejaculation
Morphology	$\geq 4\%$ normal forms		

World Health Organisation (WHO 2010)

Semen analysis can be hard to interpret, so we will go through your results with you in clinic, and discuss their implications.

If your semen analysis is normal, it is likely you will not need any further investigations.

If there are any concerns, firstly we will ask you to repeat your sample; generally after a few months. If you are a smoker, we will repeat it about 3 months after you have stopped.

If your repeat semen analysis is abnormal, depending on what is found, you may need some further investigations. These include: your blood hormone profile, chromosome analysis, whether you are a carrier of cystic fibrosis, and an ultrasound scan of your testes.

Specific advice for men:

Your partner has likely undergone a variety of investigations and you may be wondering how you can help improve the chances of conceiving. The following information is to provide you with helpful advice.

Reducing the Temperature of your Testicles

Any increase in testicular heat can dramatically decrease the count so steps should be taken to minimise this. Try and avoid:

- Wearing tight fitting underwear, hot baths, saunas, jacuzzis, and hot tubs
- Using a laptop directly on your lap for long periods of time
- Any activity that involves sitting for prolonged periods of time including the use of heated seats

Illness, Injury and surgery can affect sperm production and in some cases stop it completely. Some infections can also affect your sperm production, this includes even a flu-type illness where your temperature becomes raised. Mumps a child does not seem to affect your fertility but as a teenager or adult can be associated with sperm problems.

Work Environments can expose you to heat, chemicals, pesticides or radiation that can be harmful to your fertility. Steps should be taken to ensure that your exposure is minimised and you can seek help and advice if you are unsure from your employer or occupational health department.

Recreational Drugs should be avoided as they cause abnormalities in the sperm and decrease sperm count. This is addition to the harmful effects on your mental health. Anabolic steroids (used by body-builders) have an extremely detrimental effect on sperm that may be irreversible.

A healthy balanced diet that includes plenty of fresh fruits, vegetables and minimal processed foods/red meat is associated with improved sperm counts and motility. There is also some evidence to suggest that higher amounts of carbohydrates in the diet are associated with decreased sperm concentration.

In IVF cycles there was a study that found that men who ate more proteins and less carbohydrates had better rates of eggs developing to blastocyst stage and overall pregnancy rates.

Lifestyle Advice

Smoking - We would strongly encourage you to stop smoking to improve your fertility, but also your general health too.

For women smoking increases the chance of an ectopic pregnancy (baby implanting in the tube instead of the womb), increases the risk of miscarriage and stillbirth and other complications in pregnancy, and can reduce your ovarian reserve (the number of potential eggs you have).

For men there is a link between smoking and poorer semen quality (lower sperm count and decreased motility/slower swimmers). It can also cause male impotence (inability to get or maintain an erection).

Passive smoking also has a negative impact on both you and your partner's ability to get pregnant. If you are both smoking try and support each other and quit together.

- **For help to stop smoking please visit www.smokefree.nhs.uk, NHS Smoking Helpline 0300 123 1044 or your local pharmacy.**

Alcohol – Women trying to conceive should not drink more than 1-2 units of alcohol 1-2 times a week. Episodes of intoxication should be avoided, to reduce the risk of potential harm to the developing fetus. If you drink too much alcohol this is associated with loss of interest in sex, reduced testosterone and low sperm quality and quantity. It is recommended that men do not drink more than 3-4 units, 2-3 times a week.

Reaching & maintaining a healthy weight

The production of female and male hormones is affected by your body fat. If there is too much or too little fat, the hormones Testosterone and Oestrogen and progesterone may become imbalanced.

In women these changes can stop you ovulating (releasing an egg) as these are the hormones in the contraceptive pill. If you have PCOS and are not ovulating, losing weight is likely to increase your chances of conception and makes ovulation induction drugs (Clomid) more likely to work.

In men these changes can affect the sperm and its production.

A BMI below 30 is recommended although between 20-24 is preferable. A BMI of less than 29.4 is necessary for to be eligible for NHS funded Specialist Fertility Treatment if the sperm is not normal.

Please visit these sites for further useful information:

<https://www.bda.uk.com/food-health.html>

<https://www.bda.uk.com/resource/polycystic-ovary-syndrome-pcos-diet.html>

Exercise - maintains a healthy body and mind. Regular moderate exercise is associated with healthier sperm and is a great way to help cope with the stresses

when trying to conceive. Exercising for 20 minutes, three times a week is recommended. Group exercise & diet programmes are proven to increase the success of losing weight, improving chances of conception and general health.

- **Visit the NHS Choices website for more information.**
- **Join us at 'Fertility Fit' a fantastic group programme suitable for everyone who is trying to conceive and need to loose weight. Contact us for more details.**

Low body Weight – If your BMI is less than 19, you may not have enough body fat to have regular periods, therefore increasing weight can promote resolution and improve these chances.

Caffeine consumption in large amounts can decrease sperm motility and has been linked to miscarriage. Caffeine is found in coffee, tea, cola based drinks and chocolate. Limiting to around 200mg a day may be helpful. This is 2 mugs of instant coffee or 1 mug of filter coffee.

Drugs – Please tell us if you are taking any prescription, over-the-counter or recreational drugs, as these may affect both female & male fertility.

Stress

Trying for a baby is often a very stressful time for you and your partner especially if you have been trying for some time. It is important to recognise this and take steps that help you both to reduce your stress levels. Physical exercise, mindfulness, yoga are all good ways help.

Stress also negatively impacts on your hormones and your libido can be affected meaning you are having less sex.

Ideally you would have sex around 2-3 times a week to optimise your fertility but try not to feel pressured. If you find that you are having difficulties with sex and/ejaculation then see your GP in the first instance. Sometimes counselling may be suggested.

Couples especially men can often feel very isolated and alone during their fertility journey. Sharing your feelings may seem daunting initially but it can really help reduce some of the burden and help you feel less alone. We are here for you both so please do get in touch if you would like further support, or access resources via websites such as The Fertility Network.

For more information, please visit our website page and click on the links

www.bit.ly/WRHFertility

It contains additional resources including the information leaflets you may wish to read regarding some of the procedures you may need along your journey.

I would recommend you and your partner especially look at:

1. Information for all:

- Fertility Clinic
- BMI calculator
- Lifestyle Advice
- Weight loss & dietary advice (general & specific for PCOS)
- Zika virus Leaflet
- Coronavirus Infection in pregnancy (RCOG)

2. Patient information and leaflets:

- Semen Analysis
- Recurrent Miscarriage (RCOG Leaflet)
- Progesterone use in threatened miscarriage
- PCOS (RCOG Leaflet)
- HSG – Hysterosalpingogram
- Hysteroscopy
- Laparoscopy
- Ovulation Induction
- IVF and ICSI

3. Guidelines:

- Hydrosalpinges and IVF
- Male factor Infertility
- Recurrent Miscarriage
- Premature Ovarian Insufficiency
- Egg Sharing
- Endometriosis and Fertility
- Fibroids in Fertility Patients
- Polyps in Fertility Patients
- Thyroid Disorders in Fertility Patients
- Raised Prolactin in Fertility Patients

Accessing NHS Funded Assisted Conception

You must fulfil all the following criteria:

1. Female age between 19 - 39 years. Treatment needs to have taken place by your 40th birthday
2. Female BMI must be between 19 and 29.4. For male partners BMI must be 29.4 or less, if their semen analysis has indicated that ICSI is necessary.
3. Both must be non-smokers, or ex-smokers of at least 6m.
4. A known reproductive issue diagnosed in either partner (ie blocked fallopian tubes or abnormalities in sperm) or in the absence of this, you must have been trying to conceive for more than 2 years.
5. In the absence of a diagnosed reproductive issue same sex couples or single women are required to undergo 6 cycles of donor sperm artificial insemination at a licensed treatment centre to be eligible for NHS funded IVF.
6. Neither partner (if applicable) can be a parent or legal guardian to a living child; even if this child is now >18 years old (excludes fostered children).
7. Neither partner can have attempted assisted conception in the past either in the NHS or private sector.
8. Neither partner has previously been sterilized or had a reversal
9. Satisfactory ovarian reserve testing (two out of the following three):
 - FSH < 9.0 iu/L
 - AMH > 5.4pmol/L
 - AFC > 4 across both ovaries

All these criteria must be complied with to be eligible for one cycle of NHS funded IVF / ICSI treatment. This will be explained to you in more detail in clinic.

The criteria are based on the Commissioning Policy: CCG Tertiary treatment for assisted conception services, approved May 2019.

*** Please note these criteria can change & are different in different regions of the country.**

Other Useful Resources:

HFEA – free, clear and impartial information on UK fertility clinics, treatment including IVF and donation. <https://www.hfea.gov.uk>

NHS – a complete guide to conditions, symptoms and treatments, includes what to do and when to get help. <https://www.nhs.uk/conditions/infertility/> and www.nhs.uk/live-well

The Fertility Network – a national charity who support anyone with fertility problems. <https://fertilitynetworkuk.org>

Verity – a charity offering support and information for women with PCOS. <https://www.veritypcos.org.uk>

The Miscarriage Association – support and information for those affected by miscarriage, molar or ectopic pregnancy. <https://www.miscarriageassociation.org.uk>

TOMMY's - fund research into stillbirth, premature birth and miscarriage, and provide information for parents-to-be. <https://www.tommys.org/>

The Ectopic Pregnancy Trust - support people who have experienced an ectopic pregnancy. <https://ectopic.org.uk>

The Daisy Network – a charity offering information and support to women with premature ovarian insufficiency. <https://www.daisynetwork.org>

COTS – advice and support regarding surrogacy. <https://www.surrogacy.org.uk>

The Donor Conception Network - a supportive network of more than 2,000 mainly UK based families with children conceived with donated sperm, eggs or embryos, those considering or undergoing donor conception procedures; and donor conceived people. <https://www.dcnetwork.org/>

The Royal College of Obstetricians and Gynaecologists (RCOG) - a range of resources designed for doctors and the public. <https://www.rcog.org.uk/en/patients/>

The British Fertility Society (BFS) with associated Specialist Societies has produced a series of Quick Guides to specialist areas of fertility assessment and treatment. <https://www.britishfertilitysociety.org.uk/public-resources/>

The British Infertility Counselling Association (BICA) - a registered charity and the UK's leading professional fertility counselling association. BICA is recognised by both the Human Fertilisation and Embryology Authority and the British Fertility Society. <https://www.bica.net/>

Gateway – a friendship and support network for involuntarily childless women. <https://gateway-women.com>

The Cedar Tree – offer local support to anyone who has experienced loss through a miscarriage or stillbirth; struggling with infertility, with an unplanned pregnancy, after an abortion, or after a medical termination for abnormality. <http://cedartree.org.uk/>

If there is anything else you think we need to add or change to improve our service, please let us know your thoughts via our team email address: wah-tr.fertility@nhs.net

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PET@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.