

Surgical Sperm Retrieval (SSR)

Information Leaflet

Surgical Sperm Retrieval and Patient Journey

What is surgical sperm retrieval (SSR)?

SSR is a technique for collecting sperm from a man's testicles. It is a minor procedure, usually carried out as a day case under local or general anaesthetic.

Who needs SSR?

SSR is intended to help men who have no sperm in their ejaculate. This can be the result of a number of causes: a blockage in the vas deferens (the tube which carries the sperm to the penis); an absent vas deferens; or a blockage in the epididymis, (the structure connecting the testis to the vas deferens.) Most of these men produce healthy sperm in the testicles which can be retrieved by SSR. Unfortunately some men have testicles that fail to produce any sperm at all (this is called azoospermia) and SSR is not a suitable procedure for this condition.

Types of SSR

There are a few different types of SSR and the cause of the sperm problem will determine which procedure is most suitable for you.

Percutaneous Epididymal Sperm Aspiration (PESA)

PESA is usually the first treatment option to pursue and is performed at GCRM in theatre. It is a short, relatively painless procedure and requires no surgical incisions. A fine needle is inserted into the epididymis through the scrotum and fluid aspirated. This fluid is then inspected under a microscope for sperm content and motility. The procedure takes about 15-20 minutes. There is the option of local anaesthetic or local anaesthetic with sedation. Please discuss your sedation/anaesthetic options with Mr Underwood at your consultation. The sedation does incur another charge.

Micro-epididymal Sperm Aspiration (MESA)

MESA is a surgical procedure that requires a general anaesthetic and is performed at Ross Hall Hospital. Instead of using a needle a small cut is made through the scrotum and into the epididymis. Fluid is collected and taken for microscopic examination.

Testicular Sperm Extraction (TESE)

TESE also requires a general anaesthetic and is performed at Ross Hall Hospital. If no sperm is found in the epididymal fluid, a small incision is made into the testis itself. A small sample of testicular tissue is taken which is examined for sperm. This procedure will cause some pain and tenderness, however full recovery is expected within a few days.

Effectiveness of SSR

The sperm retrieved is frozen and this does not affect its ability to subsequently fertilise an egg. However the sperm retrieved is usually low in numbers, may not be mature therefore cannot successfully fertilise an egg using IVF techniques. Because of this, the embryologist will pick out a single sperm to inject into each egg, (this procedure is called Intracytoplasmic Sperm Injection, ICSI and is a separate charge). If non-motile sperm are all that are available for selection, it is impossible to tell whether the sperm is alive or dead, so fertilisation rates will be adversely affected. It is also possible that no sperm at all will be obtained.

Possible Complications

SSR is a relatively low risk procedure. Possible complications include bleeding and infection but these occur rarely. Any procedure that requires a general anaesthetic also carries an increased risk of complications.

Prior to your procedure

PESA without sedation: no fasting or preparation is required

PESA with sedation: You will be required to fast for at least 6 hours prior to the procedure.

MESA and TESE with general anaesthetic: You will be required to fast for at least 6 hours prior to the procedure. You are also advised to avoid alcohol for at least 24 hours.

After your procedure

We would advise you to wear reasonably tight fitting underpants rather than boxer shorts after your procedure. This will provide some support to your scrotum. Showering is preferable to sitting in hot baths to prevent infection. You should avoid alcohol for 24 hrs and sexual activity is not advised for a week after the procedure.

Other considerations:

Age of female partner

GCRM strongly recommends that if the female partner is 37 years or older that **before** the male partner proceeds to his surgical sperm retrieval, that the couple have a consultation with a GCRM fertility doctor to discuss the options available to them.

AMH value for female partner

GCRM strongly recommends that before the male partner proceeds to surgical sperm retrieval, the fertility of the female is assessed. For this we use the Ovarian Assessment. If the AMH is lower than 7.0 pmol/L, we recommend that an appointment is made with a GCRM fertility specialist to discuss the treatment options available before progressing to the surgical sperm retrieval.

Continued overleaf

Recommended Treatment Journey

Step		Date
1	Some patients may prefer to have a Semen Analysis carried out before seeing the doctor – this is optional	
2	Arrange for Ovarian Assessment for partner <i>(If Female is 37 years or over and/or has and AMH value of less than 7.0 pmol/L we strongly recommend seeing a GCRM Fertility Specialist before progressing to the Surgical Sperm Retrieval)</i>	
3	Arrange an appointment with Mr Underwood, the Urologist at GCRM	
4	Arrange all necessary blood tests as requested by Mr Underwood (including but not exclusively: HIV, Hep B & Hep C)	
5	When results are back contact GCRM SSR Co-ordinator, who will co-ordinate dates with Mr Underwood to confirm procedure times	
6	Arrange consent appointment with GCRM for procedure	
7	If you are progressing to a “PESA” please tell the SSR Co-ordinator whether you would like sedation for the procedure (there is an increased charge for this).	
8	Pay for procedure	
9	Procedure date and time will be confirmed in writing	
10	Procedure	
If progressing to Fertility Treatment		
11	Arrange a consultation with GCRM Fertility doctor. <i>(If you have already seen the doctor after stage two, you do not have to see them again.)</i>	
12	Arrange compulsory blood tests for female partner - HIV, Hep B, Hep C, Rubella and Smear	
13	Arrange consent appointment for ICSI treatment	
14	Pay for treatment	
15	GCRM arrange prescription	
16	Drug company will contact you for payment for stimulation drugs over the phone	
17	Drugs are delivered to GCRM - (unless otherwise requested)	
18	Follow the normal “patient journey” for ICSI treatment - e.g. call when your period begins	