Intracytoplasmic Sperm Injection (ICSI)

**Ovarian Stimulation**

**A) Stimulation**
The ovaries are stimulated with medication to promote the growth of follicles containing the eggs.

**Control**
The response of the ovaries is monitored with ultrasounds and/or blood tests, to control the size and quantity of follicles.

**Egg Release**

To assist with the final maturation of the egg and loosening of the egg from the follicle wall, an injection of Human Chorionic Gonadotrophin (hCG) - the trigger - is administered.

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**Egg Retrieval**

**B) Egg Retrieval**
The egg retrieval is performed 35-38 hours after 'the trigger' under ultrasound guidance, and takes place while you are sedated.

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**Fertilisation**

**C) Sperm Selection**
The motile sperm are prepared and selected for insemination.

During sperm selection a medium called Sperm Slow™ is used. This medium contains hyaluronan (HA) which binds sperm that are more likely to have intact DNA and thus allows selection of these bound sperm for injection.

By selecting the sperm that are bound to HA and using them for ICSI, the embryologists are preferentially using the better quality, more mature sperm.

**D) Egg Assessment**
The cumulus cells surrounding the egg are removed by a gentle enzyme so maturity of the eggs can be clearly observed.

Only genetically mature eggs (MII) can be injected using ICSI.

**E) Insemination**
Involves the injection of a single sperm directly into a mature egg.

**F) Fertilisation**
The dishes are placed in an incubator and checked for fertilisation 16-18 hours after insemination.

**G) Culture**
Grow in lab for 2-5 days.

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**Embryo Transfer**

**H) Embryo Transfer**
The embryo chosen for transfer is loaded into a transfer catheter which is passed through the cervix into the uterus, and gently released. Generally, only one embryo is transferred, in exceptional cases two.

**I) Vitrification**
The good quality embryos that are not transferred are frozen and stored. Frozen embryos can be used in subsequent cycles if the first cycle is not successful.

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**Luteal Phase & Pregnancy Test**
The Luteal Phase is the two-week period between embryo transfer and the pregnancy test.

You will be encouraged to limit your activity for 24 hours after the embryo transfer.

Your pregnancy blood test will be approximately 14 days after embryo transfer.

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Women contemplating fertility treatment should be aware of the possible risks, some of which are comparable to those of elective surgery. We encourage you to discuss these with your treating specialist.