



PERSONALISED FERTILITY CARE



"As a unified team, guided by principles of the highest ethical standards, we strive to provide our patients with the best quality individualised, compassionate fertility care"

Contact Us

Ballarat IVF

1105 Howitt Street Wendouree, BALLARAT

5339 8200 reception

5339 6383 laboratory

5339 8300 fax

info@ballarativf.com.au

nurse@ballarativf.com.au

www.facebook.com/ballarativf

www.ballarativf.com.au

www.ballaratendoclinic.com.au

www.ogballarat.com.au

Emergencies

Clinic hours **5339 8200**

- please indicate it is an emergency

After hours **5339 8200**

- please call this number to hear a recorded message with the after-hours emergency contact information

Contacting A Nurse Coordinator

To make this as easy as possible for you, please ring during the following times...

Monday - Friday 9am-5:30pm

Pregnancy/Hormone results: Available after 4:30pm

All ART Procedures

Ballarat Day Procedure Centre

1119-1123 Howitt Street, WENDOUREE

5338 2666

Blood Tests

Australian Clinical Labs

St John of God PathCare

Vaginal Ultrasounds

Lake Imaging Radiology Clinic

1111 Howitt Street, WENDOUREE

5339 0700

Or Alternative Radiology Clinic

Appointment times will be given to you by the nurse co-ordinator as allocated by Lake Imaging. (Mon - Fri)

Time frames are restricted but we will endeavour to accommodate your needs.

Please arrive 15 minutes before your appointment.

We believe this offers the best possible service and simplest arrangement for our patients. Immediately following your ultrasound scan, you will have an appointment at the Ballarat IVF clinic or a phone plan with a nurse coordinator who will discuss your scan results and ongoing treatment plan.



Patient Diary

Personalised Fertility Care

ivf.

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Part 1 - You



► **Read First** We believe you deserve a service that is personal, individualised and easy to access in regional Victoria.

For many couples this may be the first time in your adult life that you have a situation over which you have little control – after all, we grow up with the belief and the expectation that we will be able to have children if, and when, we are ready and we assume that our bodies will function normally if we choose to become parents.

You have come to us...

because you want to take back control over your fertility and you want to achieve a pregnancy.

You have probably felt...

some or all of the following emotions – denial, confusion, panic, confusion, anger, disbelief, frustration, sadness, guilt, ambivalence, devastation, resignation, despair and isolation (feeling like nobody you know has gone through this.)

These responses are normal and understandable, but not always easy to handle.

You may have already had...

a series of tests, treatments and surgical procedures before considering Assisted Reproductive Techniques (ART).

The fertility treatment itself is not the outcome you seek – the process can be challenging and the procedures can seem invasive.

Expect lots of waiting...

for test results, reports on egg numbers and fertilisation rates; for embryos to develop; to see if your period starts. If you have a positive pregnancy test there will be more waiting for the results of an early pregnancy ultrasound. Then, there may be the normal expectation experienced by all pregnant couples.

It is possible that you may finish your treatment with a disappointing outcome.

But remember...

you have come to us because you want to take back control over your fertility, so reassure yourself that you are doing all you can.

Things To Consider Before You Seek Treatment

Lifestyle-Related Risks

We strongly recommend you...

- > continue your normal lifestyle of work, recreation, exercise, social activity and sex
- > avoid cigarettes and illegal drugs completely and alcohol in excess. Studies have shown these decrease the chance of pregnancy

Please let us know if you are taking any medication, herbal remedies or other drugs.

Age-Related Risks

FACT

As women approach 40 years the risk of chromosomal abnormalities increases (eg Downs Syndrome). The following tests during pregnancy detect these abnormalities

- > Chorionic Villus Sampling (CVS) – performed at 10 to 11 weeks
- > Amniocentesis – performed at 14 to 18 weeks

Please feel free to discuss this with us and ask for a brochure.

Benefits Of Folate For All Women Planning A Pregnancy

All women planning a pregnancy need an adequate folate intake, either by ensuring their diet is rich in folate or by taking a folate supplement (available without a prescription from pharmacies, supermarkets and health food stores – it is not expensive.)

For most women it is necessary to have 0.5mg of folate per day. Some women who have had repeated pregnancy loss may need to take up to 5mg per day. Women who have given birth to a baby with Spina Bifida need to take 5mg per day. Please discuss this with your fertility specialist.

Why do I need to take it?

Folate (folic acid – one of the Vitamin B groups) deficiency in women prior to conception and during the early stages of pregnancy can prevent the normal development of the spinal cord and brain of the foetus causing a neural tube defect known more commonly as Spina Bifida. Many babies affected will die and others will suffer many health and neurological problems.

For more detailed information on this please ask a nurse coordinator.

When should I start taking folate?

Preferably several months before conception.

How do I include adequate folate in my diet?

Include a wide variety of vegetables, fruits, legumes, wholegrain breads and cereals.

You will have an increased risk of your baby having neural tube defects if...

- > you have given birth to a baby with Spina Bifida
- > you have a neural tube defect yourself
- > you have a close relative with a neural tube defect

There are tests available during pregnancy to check for Spina Bifida and other neural tube defects in your baby. Please discuss this with your GP or obstetrician.

Women who are taking medication to prevent epilepsy should consult their GP before taking folic acid.

Benefits of Vitamins for Males

Male vitamins with anti-oxidants can help protect against DNA damage. There are multi-vitamin formulas specifically for this purpose available.

Victorian Laws For ART

(Assisted Reproductive Treatment Act 2008 and ART regulations 2009)
(And further amendments)

All Ballarat IVF patients (those currently undertaking treatment and those who want to start treatment) must comply with the following requirements of the new laws **before continuing or starting IUI or IVF treatment** at Ballarat IVF.

For more information on the ART Act 2008 visit www.legislation.vic.gov.au

Before You Start Treatment

Before you start your ART treatment at Ballarat IVF, you must complete the following:

Appointment with a fertility specialist	<input type="checkbox"/>	
Appointment with a nurse coordinator for an overview	<input type="checkbox"/>	
Appointment with a counsellor to complete consents	Woman <input type="checkbox"/>	Partner <input type="checkbox"/>
Pathology tests for ART screening	Woman <input type="checkbox"/>	Partner <input type="checkbox"/>
Semen Analysis (At Ballarat IVF Laboratory)	Male <input type="checkbox"/>	
National Police Record Check (and overseas police record check if applicable) – original to be sighted by Ballarat IVF counsellor	Woman <input type="checkbox"/>	Partner <input type="checkbox"/>
Completed application forms for CPOC which include consents, returned to Ballarat IVF	Woman <input type="checkbox"/>	Partner <input type="checkbox"/>

Criminal Record Check (CRC) (Also Known As A National Police Certificate)

You and your partner **must obtain** a National Police Record Check. The **current original** must be sighted by a Ballarat IVF counsellor.

How to apply:

1. Go to **www.police.vic.gov.au**
2. Select
 - > **Our Services**
 - > **Police Record Checks**
3. > Download '**Online application for the National Police Certificate**' This form can be filled out online
 - > In **Section E, Option 1** select '**OTHER**' and in the space provided write '**IVF Applicant**'
3. Save and print a copy of the application form and certified I.D documents and send to the address provided on the website with your payment. Once returned to you, forward to Ballarat IVF for the Counsellor to sight.

NB: There is a cost for this check. Please visit **www.police.vic.gov.au** for a current fee list.

Child Protection Order Check (CPOC)

You and your partner must complete a CPOC application form by going to **www.ballarativf.com.au/links** that allows us to apply for this check on your behalf.

What you need to do:

1. Complete an application form each and email to nurse@ballarativf.com.au (ensure file name includes your name)
2. Ballarat IVF will apply CPOC's on your behalf –please allow enough time for this statement to be returned from the Child Protection Department.

NB: There is no cost for this check.

If there is a barrier to treatment as a result of these checks, the person/s can make a formal application to the Patient Review Panel which will then review the application under the guiding principles according to the ART Act 2008, Section 14 (a) & (b).

Part 2 - Us



- **Read First** We believe in safe assistance to a woman's fertility to aid the development of a normal, low-risk pregnancy. We support this with a team of medical scientists, nurse coordinators and counsellors.

We will help you...

- > reassess your fertility plans
- > understand the reasons for your infertility
- > learn how ART might work for you, taking into account your age and the reasons for your infertility
- > become as comfortable as possible with the procedures involved in ART
- > be realistic about your chances of conceiving

Our service is streamlined as much as possible to minimise the impact on couples who work or live some distance from our clinic.

Our Medical Services

We provide the following services...

- > Medical Consultation, Assessment and Advice
- > Diagnostic Ultrasound
- > General Gynaecological and Infertility Treatment
- > Advanced Laparoscopic Surgery
- > Tubal Microsurgery
- > Specialist Assisted Reproductive Techniques (ART)
 - Ovulation Induction
 - Intrauterine Insemination (IUI)
 - In-Vitro Fertilisation (IVF)
 - Intra-Cytoplasmic Sperm Injection (ICSI)
 - Preselective Intracytoplasmic Sperm Injection (PICSi)
 - Embryo Freezing and Storage
 - Sperm Freezing and Storage
 - Egg Freezing and Storage
 - Semen Analysis
 - Sperm DNA Fragmentation Testing
 - Testicular Needle Biopsy
 - Sperm Retrieval Techniques
 - Donor Egg Program
 - Donor Sperm Program

Our Support Services

We aim to minimise the stress involved in planning and undergoing ART treatment through the support services we offer.

We are committed to doing everything we can to help you achieve a positive outcome.

Fertility Counselling

We believe that counselling is an essential part of our service. A trained counsellor is aware of the likely emotional impact on you of both your infertility and the treatment process.

Our service is confidential and tailored to your needs. Some couples may need to talk only about their fertility; others may need to seek advice about how to deal with relatives and friends.

You must attend at least one session...

- > before your first IVF or IUI treatment cycle to complete consent forms as this is a legal requirement
- > the cost for this appointment is included in your overall fees

We recommend you attend a session when...

- > you are given a diagnosis
- > you are deciding whether to have treatment
- > you decide to finish treatment
- > a treatment cycle has a disappointing outcome

When there is bad news, there are many factors that affect how we cope...

- > past experiences
- > exposure to adversity
- > the way we hear the news

- > our perceived support
- > our individual personality characteristics

Throughout the treatment process it is important that you have a realistic understanding of the chances of a positive outcome.

How Can Counselling Help?

It can help you...

- > put your feelings about your infertility into perspective with other areas of your lives
- > continue to communicate and support each other when you may be having conflict because you have different reactions to your infertility
- > clarify the emotional impact
- > seek advice on how to deal with relatives and friends
- > because you can talk to someone who will listen
- > when feelings of anger or sadness continue and persist

It can also help you...

- > deal with the issues when you decide to stop treatment (including grief and that one partner may be ready to move on, the other not)

How Does the Counselling Work?

Our counsellors will...

- > explore issues with you
- > reassure you about the normality of the emotions you are experiencing
- > discuss different coping skills and strategies such as relaxation training for anxiety about procedures and strategies for building confidence

Nurse Coordinators

Our nurse coordinators...

- > organise and support you with your treatment plan provided by your fertility specialist
- > provide support, cycle planning, organisation of procedures, education, patient liaison and advocacy
- > provide phone support
- > have knowledge about current legislation

Ballarat IVF has a small team of nurse coordinators. This means that, although you may receive care from different nurses, you can be confident that you will receive continuity of care throughout your fertility treatment.

Other Matters

Choice of clinician and anaesthetist

The clinician and anaesthetist available on the day will manage and take responsibility for your procedure to ensure it is performed safely.

If you wish to request a particular clinician, please speak with a nurse coordinator when planning your cycle. We will make every effort to satisfy your request, but cannot guarantee this.

Waiting lists

We do not have a waiting list for fertility treatment. Treatment is started when it is medically appropriate for you.

Consent for procedures

Signed consent forms are required for IVF, IUI/ICSI and embryo and sperm freezing procedures.

A counsellor or your nurse coordinator will explain the consent forms to you. They contain important information about the benefits and risks associated with procedures.

CONTACTING US

We allocate scheduled times when couples can contact us about your treatment which may include phoning with period dates, organising scans, seeking results of tests and other general questions.

This is so we can offer the most efficient service possible to all couples.

During clinic hours

- > please phone reception on 5339 8200

After hours

- > please phone reception on 5339 8200 to hear a recorded message with the after-hours emergency contact information

Part 3 - Conception



► **Read First** In order to understand how ART can help you, here is a reminder about how normal conception works.

Normal Conception

Normal conception is most likely to occur when...

- > intercourse takes place around the time of ovulation – mucus around the cervix of the uterus becomes thin and clear at this time and stores the sperm
- > sperm are slowly released into the uterus and make their way into the fallopian tubes
- > sperm meet an egg that has been released from the ovary
- > a sperm penetrates the shell of the egg and fertilises it
- > the chromosomes of the egg and the sperm combine and form 1 cell, containing chromosomes from both partners
- > the cell divides and becomes an embryo
- > the embryo remains in the fallopian tube during the initial stages of division (2 cell, 4 cell, 8 cell)
- > the embryo implants in the lining of the uterus after 2 to 5 days

Pregnancy Rates

General Population

FACT The average pregnancy rate = 20% per month.

FACT The average time to conceive = 6 months.

FACT 85% of couples conceive after 1 year.

FACT Some couples take longer than 1 year but still conceive without fertility treatment.

FACT 15% of pregnancies will end in pregnancy loss due to miscarriage or ectopic pregnancy.

Factors That Affect Normal Fertility Rates

FACT Smoking reduces fertility in men and women by 50%.

FACT Excessive consumption of alcohol or other drugs reduces fertility in men and women.

FACT A previous pregnancy increases the chances of a subsequent pregnancy (unless circumstances have changed.)

FACT The shorter the period of subfertility, the higher the chance of normal conception.

FACT The longer the period of subfertility, the lower the chance of normal conception.

FACT A woman's age affects fertility and fertility declines with age.

FACT Extended abstinence from ejaculation does not build up sperm count.

Part 4 - Infertility



- **Read First** Sometimes couples are unable to conceive and, after careful investigation, no medical cause may be found. This does not mean that the cause is psychological or that the couple is trying too hard. While psychological issues may contribute to infertility, we believe that in some cases of unexplained or poorly explained infertility, investigations may not be sensitive enough to diagnose the problem.

Female Factor Infertility & Treatment

Ovulation Disorders

This means the ovary does not release an egg regularly and the woman may experience absence of periods (Amenorrhoea) or infrequent periods (Oligomenorrhoea). It is uncommon for women with regular cycles not to be ovulating.

What is the treatment?

Phase 1 – using the fertility drug, Letrozole or Clomiphene Citrate (Clomid and Serophene) in low to increasing doses is effective in most cases.

What is the success rate?

80% of pregnancies on this treatment occur within the first 3 months of ovulating.

If conception does not occur after 3 months the treatment should be reviewed. This treatment is normally not given for more than 3 months without a successful outcome.

Phase 2 – using ovulation stimulation, Follicle Stimulating Hormones by daily injection.

What is the success rate?

Up to 90% within 9 months – At Ballarat IVF, 10% of pregnancies from ovulation treatment are twins. Triplet pregnancies are rare.

This treatment requires careful monitoring by ultrasound. We will advise you against trying to conceive if there are more than 2 eggs expected to be released in a treatment cycle.

Tubal Blockage

This can occur as a result of prior sterilisation, abdominal or pelvic surgery, or from a pelvic infection. 80% of women with blocked tubes have no obvious underlying cause for this in their history.

What is the best treatment?

Surgery may be the best treatment for women over 40 years of age who have had a tubal sterilisation using clips. All other women are best treated with IVF to bypass the blockage

Uterine Causes

The following can all lead to failure of the embryo to implant – fibroids or scar tissue in the uterus following multiple curettes and polyps. Large fibroids or those near the uterine cavity should be removed in women with infertility.

What is the treatment?

These conditions are diagnosed by hysteroscopy and treated operatively, depending on the problem.

Cervical Mucus Hostility

This occurs when there is an excess in acidity in the mucus (pH<6) or when the mucus secreting cells have been destroyed by surgery, such as for abnormal pap smears or prolapse surgery. Rarely, sperm cannot penetrate the mucus because of sperm antibodies in the mucus.

What is the treatment?

Intrauterine Insemination (IUI) where the mucus is bypassed by placing the sperm directly into the uterus.

What is the success rate?

15% to 18% per month.

Endometriosis

This occurs when cells from the lining of the uterus develop in areas outside the uterus.

What are the implications?

There are several...

- > it may damage some of the pelvic organs
- > in severe cases, the ovaries and tubes may be stuck to each other and to other structures in the pelvis, such as the bowel, uterus and bladder
- > the ovaries may contain cysts with old chocolate-like altered blood in them

How is it diagnosed?

Endometriosis is diagnosed by performing an operative laparoscopy. Your fertility specialist may also suggest that endometriosis might be present after an examination and pelvic ultrasound. 70% of women who present with fertility problems to Ballarat IVF have endometriosis.

What is the treatment?

Laparoscopic surgery with removal of endometriosis is the best treatment option. Hormone treatment may be required following this. Either IUI or IVF may also be offered soon after surgery for endometriosis.

What is the success rate?

This will depend on the individual patient's age, history and the type of operative treatment required. However, the chance of success of any fertility treatment is greater after laparoscopic surgery.

For more information please ask for a brochure, speak to our Endometriosis nurse or visit - www.ballaratendoclinic.com.au

Male Factor Infertility & Treatment

The causes are not always known. Some men may have suffered trauma or infection in their testicles or prostate leading to a low sperm count, others may have a genetic problem and some may have undergone a vasectomy in the past.

How is it assessed?

A semen analysis is the best way. Our scientists assess the shape and number of sperm, their swimming ability (motility) and the presence of antibodies. The results of semen analysis can vary. If the initial test is abnormal, it is important to repeat the test.

If abnormal sperm counts are detected, additional blood tests are needed to assess the level of function of the testis.

Arranging Your Analysis

Ideal Abstinence Times

Abstinence for 2 to 3 days prior is ideal to ensure the best possible semen sample.

Appointments

Call to arrange an appointment:

Ballarat IVF reception - 5339 8200

Ballarat IVF laboratory (direct) - 5339 6383

Times:

Monday - Friday: 9am-2pm

Alternative appointments may be arranged by contacting the Laboratory staff.

Please bring a Ballarat IVF Pathology referral form to the appointment.

Semen Analysis

Per ejaculate, this test measures...

> volume

> count (including dead sperm)

Normal value is 15 million+ sperm/ml.

> motility (moving sperm)

Normal = 40% motile

Normal Progressive = 32% motile

> morphology (shape and size)

Normal is 4% Normal Morphology

> sperm antibodies that may be present in the semen or blood. They attach to the head or tail of sperm and can affect their ability to move freely and their ability to enter the egg. The most common cause of sperm antibodies is a previous vasectomy. It is often the reason why pregnancy may not follow a successful vasectomy reversal

Normal value is 50% binding or less.

Remember, abnormal sperm do not fertilise eggs.

Collecting A Semen Sample

If you live more than 30 minutes away from the Ballarat IVF laboratory (located at the Ballarat Day Procedure Centre) you must collect the sample at the laboratory. A private room is available for this purpose. You may collect the sample at home if you live less than 30 minutes from the laboratory.

1. **Use only** the sterile specimen container provided by Ballarat IVF staff. **Do not** use any other container.
2. **Wash your hands** with soap and rinse thoroughly.
3. **Do not** use any form of lubrication such as soap, creams and gels (this will contaminate the sample).
4. Prepare the container by loosening the lid, but **keep the lid on top** (to prevent the jar from becoming contaminated).
5. **Use masturbation only** to collect the sample.
6. Please inform the collection scientist **if any of the sample is spilt during collection.**
7. Write the following clearly on the specimen container: **your full name and date of birth and the time of collection.**
8. Keep the sample at body temperature (in your pocket next to your body, or in direct contact with your skin).
9. **If you are collecting the sample at home**, you must deliver it to the Ballarat IVF laboratory within 30 minutes of collecting it. **If you are collecting the sample at the laboratory, press the buzzer and wait for a Ballarat IVF staff member.**
10. Complete the laboratory paperwork provided.

Treatment

DNA Fragmentation Testing

Some men have abnormally high levels of DNA fragmentation in their sperm.

This can be caused by numerous factors including poor lifestyle, illness, medications, hormonal factors and increased male age.

Sperm DNA fragmentation can reduce the chance of a pregnancy and lead to increased miscarriages.

A sperm DNA fragmentation test can be booked at the same time as a semen analysis or done as a single test.

There is a cost associated with this test.

Microsurgery

Men who have had a vasectomy can have fertility restored by microsurgery.

What is the success rate?

In about 70% of cases sperm reappear, but in half of these there are high levels of sperm antibodies which reduce the capability of the sperm to fertilise an egg.

Processes Related To Male Infertility

The following procedures themselves do not produce enough sperm to bring about normal conception. As such, the sperm have to be used through IVF and in particular, through single sperm injection (ICSI) using ART.

PESA (Percutaneous Epididymal Sperm Aspiration)

This procedure is used to retrieve sperm from men who have had a vasectomy or other blockage to sperm production.

A fine needle is placed into the epididymis to aspirate tiny pockets of sperm. This procedure is performed under a light general anaesthetic, but can also be performed under a local anaesthetic.

The man may feel some discomfort in the 24 hours following. Simple pain killers such as Panadeine usually help.

TESA (Testicular Needle Biopsy)

This is similar to PESA, but tissue is taken directly from the testicle instead of the epididymis.

A general or local anaesthetic is used. A fine needle is used to aspirate tissue from the testis, withdrawing some of the tubules that contain live sperm under suction.

These procedures do not collect enough sperm to achieve a normal conception and so the couple will undergo IVF treatment, in particular using ICSI (read more below).

Sperm collected using these procedures can also be frozen for use later.

Fine Needle Testicular Biopsy

Local anaesthetic is injected into the cord just above the testicle. This is very effective in anaesthetising the testicle as there is only one nerve that supplies the testicle. The local is usually inserted shortly before the procedure as it takes approximately 5 minutes to take effect. While the skin over the testicle will still have sensation, squeezing the testicle should cause minimal discomfort.

A thin needle is then inserted into the body of the testicle and suction is applied by means of a syringe as the needle is passed through the testicle. When the needle is removed we hope to find a few small tubules which can be processed to obtain sperm. If no tubules are found the process is repeated. The entire procedure takes only a few minutes.

Risks

This is a very safe procedure and it is rare for complications to occur. The risks include bruising, infection, scarring of the testicle, damage to the function of the testicle.

Open Testicular Biopsy

In some unusual circumstances, a procedure called 'open biopsy' must be undertaken.

This procedure is performed when no sperm are present on the fine needle testicular biopsy. It requires a general anaesthetic and admission to Ballarat Day Procedure Centre. A larger amount of testicular tissue is removed.

Dependent on history, this is successful in up to 40% of men who have no sperm in the ejaculate and have no other signs of normal sperm production, and in over 90% of men who have had a previous vasectomy.

Which procedure is best for me?

A Ballarat IVF clinician will discuss the options with you in order to achieve the best possible outcome for your situation.

Post-Procedural Care

- > The local anaesthetic procedures can be performed on a day procedure basis, at BDPC.
- > Most men have very little discomfort and usually paracetamol is all that is required.
- > If you experience pain not controlled by Panadol or Panadeine, swelling and/or excessive bruising, please contact your doctor. Please do not take aspirin as it can increase bruising.
- > After the Open Testicular Biopsy procedure you will not be able to drive home and you will need at least one day off work.
- > In most cases Medicare rebates apply for these procedures. Additional fees will apply if you wish to store sperm for future use. Please ask Ballarat IVF office staff for a written quote.

Part 5 - Our Treatment Cycles



► **Read First** We believe in offering the best possible options to assist your fertility, so we provide a range of treatment cycles to meet your needs.

Assisted Reproductive Treatments (Art)

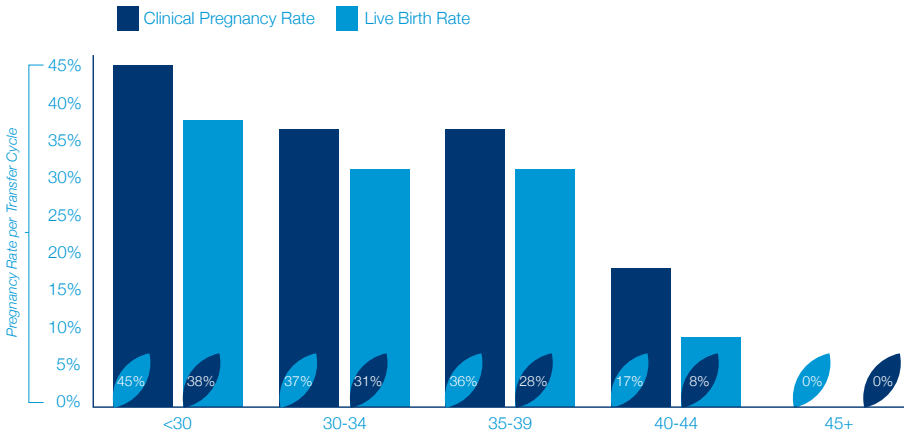
We offer specialist ART services as follows...

- Ovulation Induction
- Intrauterine Insemination (IUI)
- In-Vitro Fertilisation (IVF)
- Intra-Cytoplasmic Sperm Injection (ICSI)
- Embryo Freezing and Storage
- Sperm Freezing and Storage
- Egg Freezing and Storage
- Semen Analysis
- Testicular Needle Biopsy
- Sperm Retrieval Techniques
- Pipelle Endometrial Biopsy
- Donor Egg Program
- Donor Sperm Program
- Donor Embryo Program
- Preselective Intracytoplasmic Sperm Injection (PICSi)

Pregnancy Rates Using ART



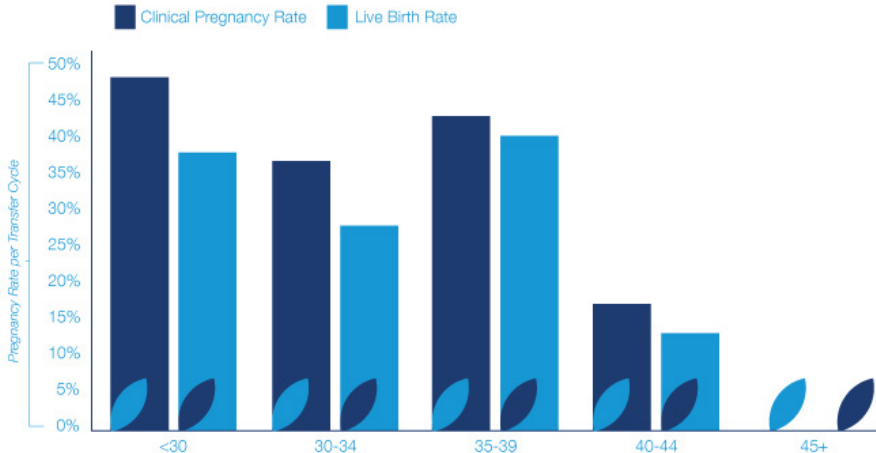
Ballarat IVF Fresh Cycle Pregnancy Rates per Embryo Transfer July 2013 to June 2016



Clinical pregnancies and Live Births per Fresh Embryo Transfer for OPU performed between July 2013 and June 2016.



Ballarat IVF Fresh Cycle Pregnancy Rates Blastocyst - July 2013 to June 2016

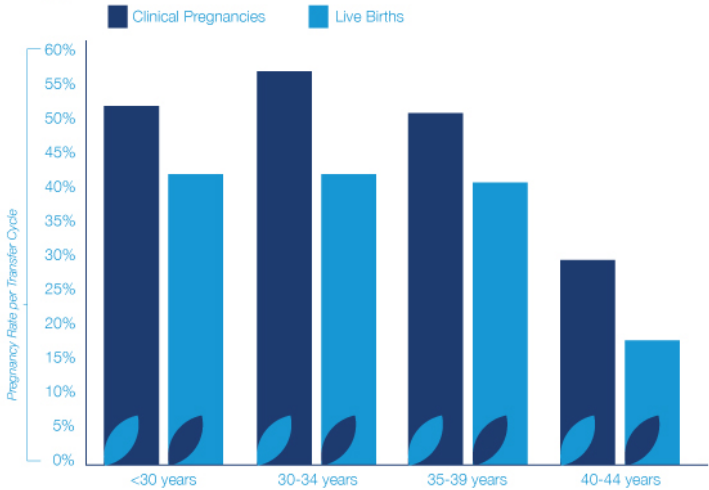


Clinical pregnancies and Live Births per Fresh Embryo Transfer for OPU performed between July 2013 and June 2016. Embryo Transfers performed at the Blastocyst stage (Day 5).

Culminative Pregnancy Rates



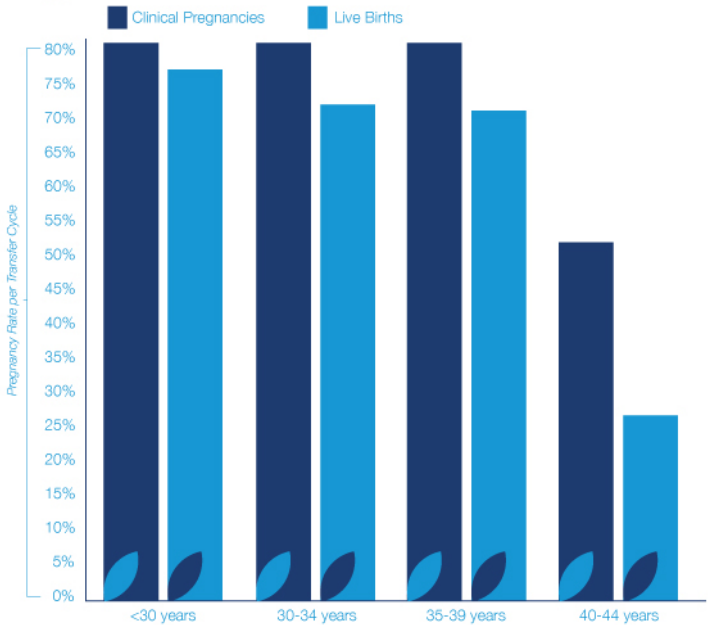
Ballarat IVF Success Rates following 1st OPU cycle



Clinical pregnancies and Live Births after their first OPU cycle. Cycles commenced between January 2014 and December 2016.



Ballarat IVF Success Rates following 2 OPU cycles



Clinical pregnancies and Live Births after two complete OPU cycles from patients that started their first cycle between January 2014 and December 2016.

Typical IVF Treatment Cycle

1. Information and Discussion
2. Pre-Treatment Tests and Preparation
3. Stimulation and Monitoring of Follicle Growth
4. Semen Collection
5. Egg Pick Up and Anaesthesia
6. Insemination, Fertilisation and Embryo Culture
7. Embryo Transfer (ET)
8. Embryo Freezing (Cryopreservation)
9. Freeze-Thawed Embryo Transfer
10. Pregnancy Testing

1. Information And Discussion

Meet with your Fertility Specialist

If you decide to proceed to IVF or a related procedure, you will receive information about which procedure is suitable for you and the likely effects and success rates.

Meet with a Nurse Coordinator

An appointment will be made for you to have a cycle overview about your treatment with a nurse co-ordinator at which time you will be encouraged to ask questions and take notes.

2. Pre-Treatment Tests And Preparation

Health Check

- > Hepatitis B, Hepatitis C, HIV – both partners
- > RPR (Syphilis)
- > Rubella immunity, blood group and antibodies – woman only
- > Anti Mullerian Hormone Analysis (woman only)

Why test for AMH?

Females are born with their lifetime supply of eggs. With age the eggs gradually decrease in quantity and quality. Anti Mullerian Hormone measure, gives us an insight into the remaining ovarian reserve, the quantity of eggs but not the quality of these eggs. It is helpful when planning for IVF and the dose of medication required to stimulate the ovaries and your follicles to grow. This has an associated cost which is not covered by medicare.

If you have had these tests within the previous 12 months you do not need to repeat the tests, but you will need to provide your results.

- > semen analysis in our laboratory
- > the woman's preceding cycle may be controlled with either the pill or Provera tablets – organise with nurse coordinator if preferred

3. Stimulation And Monitoring Of Follicle Growth

Stimulation

We will...

- > provide a combination of drugs to stimulate your ovaries so that you can develop a number of follicles and eggs

We choose drugs to suit your clinical needs based on your age, body mass, infertility type, AMH levels and previous response to IVF treatment.

You will...

- > be taught how to inject or take medication for a 5 to 16 day period

Monitoring (by Vaginal Ultrasound) usually at a Lake Imaging Clinic

You must empty your bladder before your vaginal ultrasound.

We will...

- > measure the number and size of follicles and the thickness of the uterine lining

The ultrasound cannot determine the health or number of eggs in the follicles because they are microscopic.

- > decide the most appropriate day for retrieving eggs for fertilisation

We aim for 10 good sized follicles to collect an average of 7-10 eggs. If there are too many eggs we may not proceed with the treatment. If there are too few we may advise you to not continue.

We will need to test your progesterone level prior to your trigger injection

- > a blood sample may be taken following the ultrasound to help decide whether the egg

collection should go ahead

4. Semen Collection

The man will...

- > avoid ejaculation for 2 to 3 days prior to the day of your egg pick up
- > produce a semen sample, around the time of the egg pick up
- > sometimes produce a second semen sample

This is usually done at the Ballarat Day Procedure Centre.

It is important that the man is able to produce a semen sample at the correct time. If you think you may have a problem doing so please read the FAQ section.

Ideal Abstinence Times

Abstinence for 2 to 3 days prior is ideal to ensure the best possible semen sample.

5. Egg Pick Up

You will be asked to...

- > not eat or drink for at least 6 hours before the theatre procedure
- > arrive at the Ballarat Day Procedure Centre half an hour before your procedure when you will be admitted and prepared for theatre
- > be able to leave the hospital 2 to 3 hours after the procedure

In Theatre

Your fertility specialist will...

- > insert a needle through the vagina and into the ovaries, guided by ultrasound, and collect the fluid from the follicles

This procedure takes 20 to 30 minutes.

Anaesthesia For Egg Pick Up

You will...

- > require a light anaesthetic for the egg pick up procedure to put you to sleep so you will not feel any discomfort
- > need to complete forms prior to your egg pick up and return them to Anaesthetic Group Ballarat
- > have a pre-anaesthetic consultation with a specialist anaesthetist prior to the procedure – you will be asked about your medical history, in particular any allergies or problems with previous anaesthetics

Risks

There are risks associated with any anaesthetic procedure which you can discuss with your clinician or anaesthetist

6. Insemination, Fertilisation And Embryo Culture

For IVF the scientists will...

- > search for eggs in the fluid under a microscope
- > put the eggs in culture dishes in the incubator
- > separate the good sperm – the more normal and more motile (moving) sperm

The scientists use the previous semen sample as a guide to treatment options.

- > add 100,000 'good' sperm to each culture to maximise chances of fertilisation

For ICSI the scientists will...

- > prepare the mature eggs and inject a single chosen sperm directly into the egg
- > place the eggs in culture media in incubator overnight 18 hours later...
- > check the eggs to confirm fertilisation

FACT Approximately 60% of eggs fertilise, depending on things such as the woman's age, and egg and sperm quality.

FACT Most of these fertilised eggs will divide over the following 24 hours to form a 2 cell to 5 cell embryo.

FACT Some fertilised eggs will not go on to form an embryo.

Getting Results

A nurse or scientists will...

- > let you know when to phone for your fertilisation results
- > keep you informed on a daily basis about the progress of your embryos
- > give you details about your embryo transfer

7. Embryo Transfer (ET)

We choose the day of your embryo transfer to maximise your chances of conception.

This simple procedure takes 10 minutes and involves an examination like a pap test.

ET can take place from Day 1 (the day after egg pick up) to Day 5 (Transfer of Blastocysts).

Blastocyst transfer is now the preferred option at Ballarat IVF

Your fertility specialist will...

- > transfer your embryo/s into the cavity of the uterus using a very fine catheter via the cervix (neck of the uterus) using external ultrasound to accurately place the embryos in your uterus

You will be asked to...

- > drink 600ml of fluid in the hour before the embryo transfer so you have a full bladder

You will...

- > be able to leave the Ballarat Day Procedure Centre after the procedure
- > be able to return to work that day
- > not need to take any special precautions over the following 2 weeks

Your partner can be present at your embryo transfer. In order to maintain safety for you and your embryos, children are not able to be present.

8. Blastocyst Embryo Culture And Transfer

What is a blastocyst?

At about Day 5 an embryo is called a blastocyst.

When an egg is fertilised it becomes an embryo and embryos grow by dividing the cells inside them. The embryos which do develop to blastocyst stage are more likely to develop into a pregnancy.

Not all embryos will develop to blastocyst stage.

BENEFIT Culturing embryos to Day 5 gives our embryologists more opportunity to select the best embryos for transfer, so it has the potential to improve the chances of pregnancy.

BENEFIT Your body is given more time to recover from the egg retrieval procedure.

BENEFIT Blastocyst embryo transfer gives couples the opportunity to choose a single transfer of a high-quality embryo, reducing the risk of multiple pregnancies.

DISADVANTAGE

Not all embryos will survive to blastocyst stage.

DISADVANTAGE

Occasionally a blastocyst culture cycle may result in no embryo being available for transfer or for freezing.

Is blastocyst transfer for me?

At Ballarat IVF, we recommend blastocyst embryo transfer for women who...

- > have a reasonable number of good quality embryos at Day 2 or 3
- > want to minimise the risk of multiple pregnancies
- > have been unsuccessful with Day 2 or 3 embryo transfers on a number of occasions, or have had poor frozen embryo survival in previous cycles

It is important that you consult with your clinician or a nurse coordinator to discuss whether this treatment option is appropriate for you.

9. Embryo Freezing (Cryopreservation)

During ART treatment, embryos are often frozen and stored for future use by the couple. This reduces the need for repeated fresh stimulation cycles and increases the likelihood of a couple conceiving using embryos formed during a stimulation cycle.

Freezing of embryos is an accepted and beneficial part of IVF treatment, we know now that the pregnancy rates from thawed embryos are not necessarily lower than the pregnancy rates for fresh embryos.

We will usually transfer 1 embryo to the uterus in a fresh IVF cycle, leaving embryos that can be frozen. A maximum of 2 embryos may be transferred only, as directed by the fertility specialist.

We aim to minimise invasive treatment and procedures and so we offer cryopreservation facilities for couples who wish to store (freeze) embryos.

10 years is the maximum storage period in Victoria.

BENEFIT It increases the pregnancy rate per stimulation cycle without increasing the multiple pregnancy rate. For example if 6 'good' embryos are produced in an IVF cycle we suggest embryo transfer (1) and embryo freezing (5).

BENEFIT It reduces the number of times the ovaries undergo stimulation.

BENEFIT It reduces the number of hospital attendances for egg collection procedures.

BENEFIT It often reduces the cost of your treatment.

We will...

- > confirm the number of your embryos we have stored within a couple of weeks of your cycle by letter

You can...

- > contact the laboratory for this information a couple of days after your ET if you wish

Blastocyst Freezing (By Vitrification)

Blastocyst freezing (vitrification) has increased the thawing survival rates of frozen blastocysts.

Vitrification

This is a rapid freezing technique which has been used extensively overseas, particularly in Japan, since 2000. A number of IVF clinics in Australia and New Zealand have been using vitrification to freeze embryos for two to three years with encouraging results.

BENEFIT The likelihood of embryos successfully thawing is significantly better than slow freezing as less ice crystals form within the cells of the embryo.

Vitrification at Ballarat IVF

For the reasons stated above, at Ballarat IVF, vitrification is now our preferred method of freezing blastocysts (Day 5 embryos) and we are encouraging the warming of these embryos first when undertaking a frozen embryo transfer cycle.

Vitrification of blastocysts have been undertaken at Ballarat IVF since 2008. 90% of blastocysts survive the thawing process. The pregnancy rates for thawed blastocysts after vitrification are very encouraging.

Overall pregnancy rates using thawed embryos have continued to increase.

As a technique, vitrification is in many ways simpler than the slow freezing processes previously used.

10. Thawed Embryo Transfer

Natural Cycle

We need to confirm that ovulation has occurred so we can determine the appropriate day for replacing freeze-thawed embryos.

Ovulation makes the lining of the uterus receptive to the embryos.

You will be asked to...

- > have a vaginal ultrasound at Lake Imaging around the time of ovulation to monitor follicle growth and uterus lining
- > have an appointment with a nurse coordinator to discuss the results and plan further with (eg LH testing)

We aim to make the process as natural as possible.

We can...

- > arrange your transfer between 1 and 5 days after a positive ovulation test (it depends on the stage of your frozen embryos)

You will be asked to...

- > have a blood test on the day of your positive ovulation test to confirm LH levels, so...

You must ring the clinic on the day of a positive result.

A nurse coordinator will...

- > ring you with the results of the blood test later in the day to give you a date and time to attend the Ballarat Day Procedure Centre for the transfer

Letrozole / Follicle Stimulating Hormone (FSH) Cycle

Sometimes we need to assist ovulation by giving you medication such as Letrozole, Clomid or FSH drugs. The cycle plan is similar to the natural cycle plan – see previous.

Often with these cycles you are required to have progesterone pessaries to assist the implantation of the embryos. Medications for these cycles are not covered by medicare.

Hormone Replacement Cycle

We mimic the hormonal changes that occur during a natural cycle. We use oestrogen (Progynova) tablets or patches and progesterone pessaries to artificially create a suitable environment for the embryos to develop. No blood test is required because the oestrogen tablets allow us to plan the timing.

When you are ready to start your freeze thawed embryo transfer please phone a nurse coordinator in the first 3 days of your menstrual cycle.

You will be asked to...

- > start oestrogen tablets from Day 3 of your cycle
- > have an ultrasound on Day 10 to 12 of your cycle to monitor uterus lining – if the lining is not sufficiently developed you will take an increased dosage of oestrogen tablets and have a further ultrasound 3 days later
- > start vaginal medication from 2 days prior to your transfer (sometimes an intra-muscular injection may be prescribed)
- > continue taking oestrogen tablets and vaginal medication until your pregnancy test – if you are pregnant you will continue taking both until about Week 10 of your pregnancy

Your menstrual period may not start

even if you are not pregnant because of the effects of the hormone replacement therapy.

If your pregnancy test is negative you will be asked to stop taking the medication and your menstrual period will start within 2 to 3 days.

11. Pregnancy Testing

You will be asked to...

- > have a pregnancy test (blood test) 16 days after egg collection and 11 days after blastocyst transfer

We advise...

- > you have this test in the morning so you can get your results from a nurse coordinator by phone on the same day

If you choose to have your test done at an alternative pathology provider please advise a nurse coordinator.

This test should be done even if bleeding has started because some pregnancies continue despite vaginal bleeding. For example, if an ectopic pregnancy develops you may have what appears to be a normal period. The test result will alert us to your pregnancy.

If you are using vaginal medication on IM injections after your embryo transfer you may not have your period by the time of your pregnancy test. This is because the function of these drugs is to support the lining of the uterus, thus preventing a menstrual period.

Positive Pregnancy Test

You will be asked to...

- > have an ultrasound examination 3 weeks after the positive test result to determine that there is a viable (living) pregnancy

Pregnancy Loss

FACT In 18% to 20% of all pregnancies diagnosed by a blood test the embryo will be non-viable.

There are three kinds of pregnancy loss

- > miscarriage
- > ectopic pregnancy

An ectopic pregnancy is when the embryo implants in the fallopian tube instead of the uterus. It may seem unlikely that this should happen after IVF treatment but is actually more common than a spontaneous pregnancy. This is because the embryo is so small it can move anywhere in the woman's reproductive tract.

It is difficult to detect an ectopic pregnancy in its early stages. Our staff will monitor this possibility carefully.

Chance of developing an ectopic pregnancy

- FACT** 2% to 5% for a woman undergoing fertility treatment.
- FACT** 5% to 10% for a woman whose infertility is related to damage to their fallopian tubes.
- FACT** 1% to 2% for a woman who has normal fallopian tubes.
- FACT** 15% recurrence risk for a woman who has had a previous ectopic pregnancy.

- > biochemical pregnancy

This can occur following IVF treatment – the blood test shows implantation and continued embryo development, but the pregnancy does not develop further. This is not a miscarriage. A relatively normal menstrual period follows.

We will monitor your reaction to this news carefully and will provide extra support when necessary via phone consultation.

We strongly recommend you seek support from one of our counsellors, a nurse coordinator, your GP or fertility specialist. You will also be able to seek advice about the possibility and timing of further treatment.

Remember, it is important that you are realistic about your chances of conceiving with ART treatment.

Removing an Ectopic Pregnancy

This is done...

- > usually by surgery using laparoscopy
- > sometimes by treatment with a drug called Methotrexate
- > rarely by open abdominal surgery

FACT Usually the fallopian tube is removed and the end of the tube next to the uterus is closed – this is because the ectopic pregnancy damages the tube, increasing the risk of a future ectopic pregnancy

Other ART & IUI

For some couples to achieve conception, all that may be necessary is to time ovulation carefully and have the sperm prepared in our laboratory and inserted into the uterus. It may be necessary to assist ovulation by stimulating the ovaries with Letrozole, Clomiphene or Gonadotrophins. We may recommend 3 to 4 cycles before trying any other treatment.

Please abstain from intercourse for 2 to 3 days prior to expected ovulation. We will estimate this during your consultation to plan your treatment.

You will be asked to...

- > take a urine test around the time of ovulation to detect the release of luteinising hormone and achieve accuracy in timing the procedure
- > alternatively, have an ultrasound and then possibly an injection to stimulate the release of an egg
- > ring the clinic on the day you detect your peak time so that we can arrange for your partner to collect a semen sample on the same day

1 week after ovulation...

- > have a blood test to check your progesterone level and confirm that an egg was released

17 days after ovulation...

- > have a pregnancy test

If your pregnancy test is positive...

- > notify the clinic. A BHCG blood test will be ordered to confirm your pregnancy. An ultrasound will be planned 3 weeks after the positive result

If your pregnancy test is negative...

- > expect a menstrual period within 14 days of treatment – if you have not started within 17 days please contact the clinic

ICSI (Intra-Cytoplasmic Sperm Injection)

ICSI treatment is a method of sperm micro-injection where a single sperm is injected into an egg.

It is available for couples who...

- > have not been able to achieve fertilisation using routine IVF methods
- > have semen test results that show that routine IVF would not give satisfactory results
- > have very low sperm numbers and therefore would not be offered treatment using other IVF methods
- > have had a vasectomy or reversal
- > have absent or blocked vas deferens (the tube that carries the sperm from the testicles)

LH Testing Plan for IUI

On weekdays:

Test your urine daily (1st specimen) in the morning.

If your test is positive...

- > ring the clinic on 5339 8200 between 9am-9.30am to arrange treatment

Please tell the reception staff that you have had a positive test result and you need to speak with a nurse coordinator as soon as possible.

- > the nurse coordinator will normally arrange your treatment between 11am-4pm that day
- > you will collect your semen sample **two and a half hours before the treatment** – the nurse coordinator will arrange an appointment time for you at the laboratory (Ballarat Day Procedure Centre)

Please remember to tell the coordinator if you are planning to collect the semen sample at home.

Occasionally, treatment may need to be arranged for the day after your LH surge to suit you or due to workloads in the Ballarat IVF rooms or laboratory.

This does not in any way compromise your chance of success.

On Saturdays:

Test your urine (1st specimen) in the morning before 8am or earlier if you live out of Ballarat.

If your test is positive...

- > ring the nurse coordinator on 0407 338 447 at 8am to arrange treatment

If you live more than one hour from the laboratory you must be on your way when you ring because your appointment time for collecting your semen sample may be as early as 9am.

- > you will collect your semen sample before this – the nurse coordinator will arrange this
- > the nurse coordinator will normally arrange your treatment between 10am-11am that day

On Sundays:

Test your urine (1st specimen).

If your test is positive...

- > ring the clinic on 5339 8200 on **Monday morning** between 9am-9.30am to arrange treatment
- > the nurse coordinator will normally arrange your treatment between 11am-4pm on the Monday

This does not in any way compromise your chance of success.



ivf.

Part 6 - Potential Risks



► **Read First** We believe it is important that you have an understanding of possible health effects and potential risks associated with your treatment.

Ovarian Hyperstimulation Syndrome (OHSS)

- FACT** OHSS is a complication that can occur during the IVF process.
- FACT** OHSS can occur after treatment with Gonadotrophins or Clomiphene Citrate.
- FACT** OHSS is more likely to occur if a woman develops a large number of follicles, but it can occur even if a small number develops.

Who is at risk?

Women who...

- > have Polycystic Ovarian Syndrome (PCOS)
- > are young
- > are thin/low BMI
- > have experienced OHSS previously
- > High AMH

How is the risk managed at Ballarat IVF?

When prescribing the starting dose of Gonadotrophins (FSH) we take risk factors into account. We prefer caution and would rather a smaller number of eggs than risk OHSS.

During treatment our nurse coordinators will monitor your response to treatment closely. They will ask questions about symptoms such as nausea, pain, breathlessness and rapid weight gain.

If these symptoms occur a nurse coordinator will notify your fertility specialist to seek treatment advice.

What are the treatment options for women with OHSS symptoms?

Coasting – withholding further doses of FSH for a number of days.

Monitoring hormone levels – taking a blood test to show the oestrogen levels.

Giving a lower dose of the trigger medication – to reduce the risk of OHSS developing.

Cancelling the treatment cycle – stopping the FSH and continuing on Synarel and/or starting Letrozole to help relieve the symptoms of OHSS until a menstrual period starts.

Foregoing the fresh transfer and freezing all embryos formed – this does not reverse the OHSS, but stops it progressing. Medications may be prescribed to help to reduce progression of OHSS

If a woman has a degree of OHSS and conceives, the condition can worsen and will take longer to resolve.

Severe OHSS

This is an uncommon condition, but can be serious.

You can...

- > become quite ill
- > experience significant pain, swelling of the abdomen and nausea
- > have your kidney function affected and will need intravenous fluids
- > rarely, develop clots in the legs or lungs and will need blood thinning injections such as Clexane

You may need to be admitted to hospital for 2 to 14 days.

Multiple Pregnancy - Potential Risks

Twin pregnancies can result from ART. The younger a woman is, the higher the likelihood of a twin pregnancy if two embryos are transferred into her uterus.

The majority of twin pregnancies results in the birth of two healthy babies and the experience of caring for two (or more) babies is mostly very positive.

However, we believe it is important that you consider the additional risks for the woman, the babies and the couple's relationship.

What are the potential complications for the woman during pregnancy?

You are likely to be admitted to hospital at some stage during your pregnancy with a complication. Most of these complications are easily treated, but occasionally you will need a prolonged hospital stay.

Also, most women are advised to stop work at least 10 weeks before their due date and many women stop earlier than this. This can impose personal and financial stresses on a woman and her family.

What are the potential complications for the babies?

The rate of premature birth in twin pregnancies is as high as 75%. Most premature babies have a good health outcome, but serious health problems such as developmental problems, intellectual problems, or vision and lung problems can occur. The risk of death and cerebral palsy is four times higher in twins because of the high rates of prematurity.

What are the potential complications after the birth?

For some couples, the additional work involved in caring for twins leads to major life stresses that may damage their relationship.

How can I significantly reduce the possibility of a twin pregnancy?

The best way is to have only one high-quality embryo transferred into your uterus which almost eliminates the possibility of a twin pregnancy (the exception is monozygotic twins, where the embryo splits to form a twin pregnancy – the chance of this occurring is approximately 1%).

While transferring more than one embryo increases the chance of pregnancy for that attempt, pregnancy rates per cycle are similar whether you transfer one or two embryos.

The doctors, nurses and scientists at Ballarat IVF are committed to helping you realise your goal of having a happy and healthy family. You are encouraged to consider having one embryo transferred during your IVF treatment. If you are undergoing ovulation induction or IUI you will be advised, in most cases, to avoid trying to conceive if there are more than two follicles present when you have an ultrasound

Pelvic Infection

Some women have had a pelvic infection which may have contributed to their infertility by causing damage to the fallopian tubes. Some of these women may experience a recurrence of the infection following egg pick-up – probably because the infection is stirred up after lying dormant.

We will try to reduce these risks by administering antibiotics during your procedure if you have a history of pelvic infection.

FACT This is very uncommon – less than 1 in 1,000 cases.

Ovarian Abscess

This is potentially more serious and occurs mainly in women who have a history of endometriosis and endometriotic cysts on their ovaries. This occurs because, during egg pick up, a needle must pass through the vagina (which is not a bacteria-free area) into the abdominal cavity and ovary.

How is the risk managed at Ballarat IVF?

In such cases we will provide an antibiotic cover during the egg pick up procedure.

FACT In 1 in 1,000 cases a bug is introduced into the ovary which may then grow in some endometriosis tissue.

Useful Sources of Information

- > **VARTA** Possible Health Effects of IVF
www.varta.org.au
- > **ACCESS**
www.access.org.au
- > **National Perinatal Statistics Unit**
www.npsu.unsw.edu.au

Part 7 - Our Donor Program



► **Read First** We believe in achieving the best and safest outcome for the child, the donor and the recipient. We believe it is a basic human right to know your genetic origins and we strongly encourage all donor recipients to disclose information to children born from donor procedures

Donor Selection

We undertake a rigorous donor selection process. This includes a screening test for infectious agents or genetic disorders that aims to minimise the risk of transmitting disease and ensure the donor sperm and embryos are suitable.

Two Kinds of Donors

Known donors...

such as a friend or relative of the recipient/s

Anonymous donors...

including altruistic donors – women who, for altruistic reasons, wish to donate. These donors may have approached Ballarat IVF directly

Our donor program caters for both clinic-recruited and client-recruited donors.

More specific information can be found in the sections following.

Donor Sperm, Also Donor Insemination (DI)

For couples or women who are diagnosed as being unable to conceive without it, using donor sperm can be a relatively straightforward medical and social decision.

Who Needs It?

Couples where the man...

- > has no sperm and there is no effective medical or surgical treatment possible
- > has an hereditary condition that has a high chance of being passed on to his children
- > has sperm with severe impairment of sperm number, motility or quality

Couples or women who...

- > have been diagnosed with clinical infertility or who are unable to become pregnant or carry a pregnancy other than by a treatment procedure

What is the success rate for conception?

15-20% following every cycle of DI.

DI may be the simplest and most successful ART option for many couples and single women.

We limit DI to 2 cycles due to restricted availability of donor sperm. We then offer IVF with donor sperm treatment.

The woman is required to undergo a test to confirm that the fallopian tubes are open prior to having DI.

Selection Requirements – Sperm Donors

Sperm donors...

- > 21 to 45 years
- > in good health with no history of hereditary disease
- > if married or in a de facto relationship, the donor's partner must attend counselling

Screening Process

Sperm donors must complete...

- > a form that includes identifying information

This information is collected by Ballarat IVF and kept in a register.

- > a profile record that includes identifying and non-identifying information such as physical characteristics, social and medical history and reasons for donating
- > a lifestyle declaration

This information is used by potential recipients for selection purposes.

The donor is allocated a computer-generated client identification code at the initial consultation and will be identified by this at all times by our staff.

Sperm donors must undergo...

- > a semen analysis to assess suitability for donation
- > a medical consultation and physical examination by a fertility specialist
- > a pre-donation screening for infectious diseases and certain genetic conditions
- > a nursing consultation to receive detailed information and fill in paperwork (see above)

One counselling session is mandatory for both donor and partner (a second session is offered).

The screening tests cannot guarantee 100% that there is no chance of transmitting infection. There are no known cases of transmission of infection through sperm donation.

All donor documents are kept in confidential files at Ballarat IVF.

Then...

- > donor semen is frozen and stored for 3 months in 'quarantine'
- > the donor is re-tested after the 3 months for HIV, Hepatitis B and Hepatitis C before the semen is cleared for use in DI treatments, IVF or ICSI

Selection Requirements – Sperm Recipients

Sperm recipients...

- > 18 to 43 years
- > must meet the requirements of the ART Act 2008

Donor Sperm Limits

At Ballarat IVF we limit the number of recipient families per donor up to 10 families if all donations are managed through our clinic. If the donor has donated elsewhere the legal limit is 10 recipient families per donor.

TREATMENT PROCESS FOR WOMEN – DI

We will...

- > insert sperm into the uterus via the cervix using a catheter (sperm is thawed after having been stored frozen in liquid nitrogen)

This procedure is similar to a pap test.

You should...

- > lead your normal life after the treatment, including work, showering

Preparation to Maximise the Chance of Success

See Appendices page 61 and 62 for more information about the drugs mentioned here.

For women with irregular or unpredictable cycles a low dose of an ovulatory stimulant, Letrozole or Clomiphene (Clomid) will be used. This medication increases the chance of a pregnancy being multiple (8% chance of twins, 0.5% chance of triplets) so monitoring the ovaries by ultrasound is very important.

You will...

- > have a combination of ultrasound scanning and hormone testing using a urinary kit, Seratec
- > let our clinic know the day your LH ovulation test is positive

We will...

- > schedule your donor insemination procedure for that day or the following day In some cases a single injection of the drug hCG will be used to plan ovulation and then treatment.

- > Blood test must be attended at the end of a cycle at a nominated pathology collection centre.

Reimbursement To Sperm Donors

Reimbursement for expenses incurred whilst attending donation appointments is allowed.

You can contact the clinic to ascertain the amount you will receive.

If expenses incurred are higher than this, individual arrangements may be made.

FAQs – DI

Will we have a choice of donor?

Yes, depending on availability. Your nurse coordinator will let you know your choices. This allows you to choose a donor that you feel is appropriate for you.

Will my partner have to adopt the baby?

No. You and your partner will be the legal parents of your child, under current legislation. The donor has no legal rights over your child. The donor is not liable for support if you and your partner divorce or separate.

What information is made available to the donor and my child?

In Victoria, donors are required by law to be placed on a central register. The Central Register is managed by VARTA. You can seek information from these registers. Application forms are available on -

www.varta.org.au

Why do we have to have counselling before treatment if we have made our decision?

We accept that you know what you want. We are committed to making sure you are informed about all probable implications of having a child using donor sperm / egg / embryos.

Most couples who did not want counselling gave feedback that it was worthwhile.

We are not sure whether we should tell our family and friends, and our baby – should we?

There is a strong recommendation to tell your child about their biological background. The ART Act 2008 introduced addendums on birth certificates of children born from the use of donated eggs, sperm or embryos. As a general rule, if you tell anyone at all that you are having donor treatment then you should tell your child – it is better for them to hear it from you than someone else.

Will I be able to use the same donor for more children?

We would like to help you with this, but we cannot guarantee it because of supply and demand issues, and the same donor may not be available. We may be able to reserve sperm for couples who wish to have more than one child so they can use the same donor.

Is DI available for women?

Yes. DI is available to all women, (single, heterosexual and same sex relationships)

Central Register

Records identifying and non-identifying information about the donor and the child at the time of birth, and identifying information about the child's parents.

Identifying information can only be released with the consent of the person to whom it relates.

Victorian Legislation states that, at the age of 18, donor children can access information about their biological parents. Donors do not have the right to refuse to release this information.

VARTA manages all Victorian donor treatment registers under the Assisted Reproductive Treatment (ART) Act 2008. It allows access to identifying information by the child when they turn 18, and applies unconditionally if they choose to apply for more information.

Parents can request information about the donor prior to the child turning 18 by applying to VARTA. A donor and a descendent of a donor-conceived person can also apply for information. An application fee applies. Information is supplied by Ballarat IVF about the donor treatment procedure, to VARTA. It is a legal requirement for Ballarat IVF to supply information regarding donor conceived child, the donor and the parents to the central register @ VARTA.

The Voluntary Register

This register was established under the requirements of Part 7 of the ART Act 2008

which contains information about people connected to donor treatments in Victoria. This register is managed by VARTA. It allows anyone involved with a donor treatment procedure since July 1988 to apply voluntarily for inclusion on the register. It records identifying information provided by the applicant to be released to other parties specified and includes any information which may be of interest to other parties associated with the donor procedure.

Donor Eggs

Who Needs It?

Couples or women who...

- > are unable to produce their own eggs due to the ovaries not developing properly (eg because of Turner's Syndrome), or ovarian failure, also called premature menopause

This affects approximately 30 to 80 thousand Australian women under 40 years.

- > are infertile due to surgical or medical treatment such as chemotherapy
- > have an hereditary condition that has a high chance of being passed on to her children
- > have failed to conceive after repeated routine IVF treatment (particularly if the scientists have identified an egg problem)

Selection Requirements

– Egg Donors

Egg donors...

- > 21 to 35 years (those older than 35 years will be assessed on a case-by-case basis and the final decision is at the discretion of the fertility specialist)
- > have had previous successful pregnancies or proven fertility
- > have completed their own family
- > if no previous children, Ethics Committee approval may be required

Screening Process

Egg donors must complete...

- > a form that includes identifying information

This information is collected by Ballarat IVF.

- > a donor profile record that includes identifying and non-identifying information

such as physical characteristics, social and medical history and reasons for donating

This information is used by potential recipients for selection purposes.

The donor is allocated a computer-generated client identification code at the initial consultation and will be identified by this at all times by our staff.

- > a lifestyle declaration form

Egg donors must undergo...

- > a medical consultation and physical examination by a BIVF fertility specialist
- > comprehensive blood screening tests for infectious diseases and some genetic conditions
- > 2 nursing consultations to discuss central registers and ART Act 2008 related issues and to discuss treatment plans

One counselling session is mandatory for both donor and partner and a second session for group counselling with the recipients is highly recommended.

The screening tests cannot guarantee 100% that there is no chance of transmitting infection. There are no known cases of transmission of infection through egg donation.

Then...

- > we recommend that embryos formed from egg donation are frozen and stored for 3 months 'quarantine'
- > if a choice is made to use embryos in a fresh cycle then consent to waive the quarantine period is necessary
- > the donor is re-tested for HIV, Hepatitis B and Hepatitis C and Syphilis before the embryos are cleared for use by the recipient couple

Selection Requirements

– Egg Recipients

Egg recipients using clinic-recruited egg donors...

> 18 to 45 years

Egg recipients using self-recruited egg donors...

> 18 to 50 years – assessed on a case-by-case basis

The Legal Situation

The following points require careful consideration...

> issues associated with telling the child

> access to information

In Victoria...

> clinics are required to record all the identifying information about donors, recipients and children in a central register managed by the VARTA

If a known donor is used, the donation is known by the donor and the recipient and this is relatively open information.

The current legal position is that the birth mother is the legal mother.

The decision to donate or receive donor eggs is a serious one which has legal and social implications for all involved. Individual legal advice is encouraged for all donors and recipients.

All donor documents are kept in confidential files at Ballarat IVF.

Donor Embryos

Consent must be given to Ballarat IVF to store embryos for more than 5 years.

Embryos can be stored in a cryopreserved state for 10 years under Victorian law.

Women and couples who have completed their families and who still have embryos in a cryopreserved state **must** choose to use, discard or donate. Application to the PRP is required if storage beyond 10 years is requested. Some women choose to donate their embryos rather than discard them.

Embryo donation is a very simple process. However, there are complex implications that must be explored by both potential donors and recipients.

Embryo donation is a commonly used fertility treatment option at Ballarat IVF. Please ask a nurse coordinator for more information.

Counselling is compulsory and critical.

Donation of embryos for research is not offered at Ballarat IVF.

Useful Resource

VARTA - www.varta.org.au

'What To Do With Un-Used Embryos?'
(decision tool)

Who Needs Embryos?

Couples where the man...

- > has no sperm and there is no effective medical or surgical treatment possible
- > has an hereditary condition that has a high chance of being passed on to his children
- > has sperm with severe impairment of sperm number, motility or quality

Couples or women who...

- > have been diagnosed with clinical infertility or who are unable to become pregnant or carry a pregnancy other than by a treatment procedure.

Things To Consider

– Potential Embryo Donors

If you have frozen embryos it can be very difficult to decide whether to use them yourself (which may not be physically or financially possible), have them discarded, or donate them.

If you are considering becoming a donor you must consider the following issues carefully...

- > you must be clear about why you are making his decision
- > you may want to give a child a chance of life or someone a chance of pregnancy
- > you may want to give something back to the IVF program
- > you may not want the embryos destroyed
- > any children born from your donated embryos will be full siblings to your own children
- > you may feel like you have given away your own children

You also need to consider what you will tell your children.

Things To Consider

– Potential Embryo Recipients

Embryo recipients need to be very comfortable with the fact that neither of you will be the genetic parent – many consider it to be like an adoption.

You also need to consider what you will tell your children, and how you will feel if your children wish to make contact with the donors.

Known Embryo Donation

All donors and recipients need to give consideration to the following practical and emotional issues and be comfortable with this decision...

- > the current relationship between the couples and if it is likely to change should donation proceed
- > the parents having potentially different parenting expectations
- > the future relationship between the parents' children
- > the possibility of the child having abnormalities
- > the child's gender causing concerns
- > the relationship between the couples experiencing difficulties in the future
- > the possibility of siblings meeting and marrying (Australian states with a register can give confirmation and reassurance about this.) The likelihood of this happening is very low, especially if parents inform their children of their genetic origins

Information & Support

Counselling

The aims of counselling is to help you feel comfortable about your fertility treatment and to complete and sign consent forms in relation to your treatment.

It is essential that donors and recipients talk openly and honestly. It is not a test to see whether you should have treatment, but rather a chance to explore issues to ensure the best possible outcome for everyone involved.

How can counselling help?

It can help you...

- > clarify your thoughts about issues to do with using donor treatment
- > resolve any questions you have

How does the counselling work?

Our counsellor will...

- > discuss all the probable implications of having a child using donor treatment
- > discuss our policy on disclosure of information
- > give donors and recipients information about the relevant details of the ART Act 2008
- > recommend resources such as books, websites and support groups
- > help you complete consent forms (IVF and donor)
- > discuss role of central and voluntary registers at VARTA

Our service is confidential and tailored to your specific needs. You must attend one session. We recommend you attend two sessions.

Resources

Books available for loan from Ballarat IVF

'Building a Family with the Assistance of Donor Insemination', Ken Daniels

'Sometimes it Takes Three to have a Baby', Kate Bourne

'Experiences of Donor Conception', Caroline Lorbach

ACCESS Australia

This is a National Fertility Network which provides support and advocacy for families with infertility. Ballarat IVF offers an introductory 12 month membership for subscription.

Please ask a nurse for an application form if you are interested in becoming a member.

www.access.org.au

For more information visit

www.varta.org.au



ivf.

Part 8 - FAQs



- **Read First** We believe patients should be as informed as possible about their fertility treatment options.

Frequently Asked Questions

These are just short answers – please ask a nurse coordinator or one of our scientists for more information.

How do I go about organising an appointment with a fertility specialist and what is required for that appointment?

An appointment can be made by phoning the clinic on 5339 8200. You will be required to organise a referral from your GP prior to the appointment. You will most likely have a vaginal scan at your first appointment. You can find out the cost of this appointment by speaking with office staff.

What are some of the options that could be recommended by a fertility specialist?

An examination and consultation will determine the course of treatment by fertility specialist. Treatment options may include surgery (laparoscopy), ovulation induction, IUI and/or IVF.

What steps are required if fertility treatment has been recommended?

Details of what is required will be discussed by a nurse co-ordinator. Refer to page 8 for a detailed check list.

Why do I/we need to apply for police checks and child protection order checks?

Victorian Legislation was changed at the beginning of 2010 with the implementation of these checks as a requirement to access ART.

What can I do if treatment is refused?

Application to the patient review panel is required when there is a barrier to treatment. For more information discuss with a nurse co-ordinator.

What are the possible health effects of IVF?

Most common complication is hyperstimulation as a result of infertility drugs which are used to stimulate the ovaries. Ballarat IVF monitors patients very carefully to minimise this risk. Hospital admission from egg collection due to bleeding and infection occurs very rarely. The risk of serious complications from general anaesthesia and sedation is also very rare.

Why do I have to have a semen analysis test done at the Ballarat IVF laboratory when I've had one done somewhere else?

The standards vary at different labs. We need accurate test results and we test for things that other labs may not, such as morphology and antibodies. Our lab is NATA accredited for semen analysis and antibody testing.

How can I be infertile when I have a million sperm in my ejaculate?

1 million sounds like a lot, but the normal count is 15 million sperm/ml or more. The average fertile man has 20 to 80 million sperm/ml. You are not infertile unless you have no sperm in your semen at all. Most couples having difficulty conceiving are 'subfertile'.

How can I be subfertile when I have 200 million sperm in my ejaculate?

You may have high numbers but you may have high numbers of immotile (not moving) or abnormally shaped (abnormal morphology) sperm.

Why may I need a trial preparation at Ballarat IVF?

Our scientists use various methods, depending on the profile of the sperm sample. They can get the best results for you if they can test a sample in advance.

My count is very low – won't it be better if I save up for a couple of weeks?

No. 3-day abstinence delivers the peak number of motile (moving) sperm in the ejaculate. For men with severe azoospermia (motility less than 20%) it may be best to ejaculate daily or every second day prior. Please discuss this with a nurse coordinator or scientist before you start your treatment.

What if I can't collect a semen sample on the day of IVF treatment?

This is not uncommon. It is important to practise masturbation prior to the day. Some men like their partners to help them and this can be arranged.

Please report any potential problem to a nurse coordinator prior to the day.

Why can't I collect at home and bring the sample?

The scientists need to begin the preparation of the sperm within 1 hour of ejaculation. In some cases, if travelling time allows, you can arrange to collect at home. The sample must be kept at body temperature and delivered to the scientists within 30 minutes.

I have difficulty collecting by masturbation. Can I collect by having intercourse with withdrawal?

Any sperm is better than no sperm. However, samples collected this way will be contaminated with large numbers of cells and debris, usually from the skin or from within the vagina. This makes it very difficult to rescue good motile sperm, especially if you have a poor semen profile.

Can I collect by having intercourse wearing a condom?

Generally no. Most condoms are sperm toxic. If you cannot collect sperm in any other way we can provide you with a non-toxic condom.

Can I use a lubricant?

No. Most lubricants are sperm toxic.

I collected the entire sperm sample but missed the first bit. Does this matter?

Yes, it matters. The first bit often contains most of the sperm.

Can I have my sperm frozen prior to our first treatment in case I cannot collect on the day?

Yes. However, a significant number of the sperm will die and so fresh sperm on the day is best.

What happens to my sperm when it is stored?

The sperm sample is mixed with a special 'cryoprotectant' solution that protects it during the freezing process. This mixture is then placed in plastic straws or vials clearly labelled for accurate identification, and frozen in liquid nitrogen. The straws / vials are then placed in special storage containers filled with liquid nitrogen.

Costs

We understand that ART treatment is expensive. We aim to make treatment at our clinic financially accessible to as many couples as possible. Please discuss with office staff details of your quotes and remember that all quotes are subject to change at any time.

If you have concerns or problems about financial matters please discuss this with a nurse coordinator or fertility specialist.

Pathology Costs

Under the current Medicare system, hormone test costs (including pregnancy tests) performed during IVF, DI and IUI treatments are mostly covered by Medicare.

At Ballarat IVF all 'in cycle' blood test costs are covered by your cycle fee if performed at St John of God Pathcare Pathology/Australian Clinical Labs.

If you choose to attend another private lab for these tests you will be responsible for the cost of the gap between the Medicare rebate and the amount charged.

If Medicare sends you a letter explaining any deductions from your treatment cheque you must forward a copy to our clinic together with payment. If you do not include this letter you may incur further costs.

Please note that some government laboratories have privatised their pathology services.

Radiology Costs

Our preferred radiology is Lake Imaging. If you choose to attend alternative radiology

departments the cost **will not** be covered by Ballarat IVF.

Costs Of Services By Your Gp

Any costs incurred because you visit your GP for services related to your IVF treatment (eg injections given by your GP) are not covered by Medicare. If you choose to have these services Medicare will deduct this amount from your IVF treatment cheque (payable to Ballarat IVF), leaving a balance which you must pay to Ballarat IVF.

To avoid this extra cost please arrange to be given the injections by your partner, a friend or a member of the Ballarat IVF clinic staff.

The Law

The Victorian Assisted Reproductive Treatment Authority (VARTA) (previously the Infertility Treatment Authority) is a statutory authority responsible for regulating ART (Assisted Reproductive Treatment) in Victoria in line with the requirements of the Assisted Reproductive Treatment Act 2008 (previously the Infertility Treatment Act 1995).

Complaints

Please address any concerns or complaints relating to your ART / IVF treatment to the program manager or your fertility specialist. We encourage you to document your complaints – the appropriate forms are available from the program manager, laboratory manager or office manager. We will handle all complaints in a strictly confidential manner and will make every attempt to provide feedback to you.

Privacy Statement

We believe that how we handle your health information is of the highest importance. We follow the Australian Privacy Principles, March 2014.

Please speak with us if you have any concerns, questions or complaints about any issues relating to the privacy of your health information.

Collection, Use And Disclosure Of Your Information

In order for us to provide the best possible care that is accurate and appropriate...

- > we need information about your medical history – we collect this from you, and other sources with your consent
- > sometimes we may receive further information from other sources, such as your GP – when we do we will, whenever possible, make sure you know we have received this information
- > all members of our medical team require full knowledge of your health information
- > sometimes we have to share your health information with other health care providers in order to ensure quality and continuity of care For billing and medical rebate purposes...
- > we have to share some of your health information with Medicare and your private health fund

For other purposes...

- > the doctors and nurses at Ballarat IVF are members of various medical and professional bodies, including medical defence organisations, and sometimes they need to disclose your health information for medical defence purposes

> sometimes a medical practitioner is legally bound to disclose patient's personal information – an example of this is the mandatory reporting of communicable diseases

It is necessary for us to keep your health information after your final attendance at this practice for as long as is required by law or is prudent regarding administrative requirements.

Access – Your Rights

You have a right to access your health information and / or ask for a copy of the information in part or full.

You are not required to give reasons for your request, but you may be asked to clarify the scope of your request. The material over which the doctor has copyright might have conditions that prevent further copying or publication without the doctor's permission. If you find that the information held about you is inaccurate or incomplete you can have that information amended. Your health information held by this practice will be made available to another health service provider if they request it.

A charge may be payable where the practice incurs costs in providing access – this will depend on the nature of the access.

Parents / guardians and children

A child's right to privacy of their health information might restrict access by parents or guardians, based on the law and the professional judgment of the doctor.

USEFUL LINKS

www.varta.org.au

(Victorian Assisted Reproductive Treatment Authority)

www.legislation.vic.gov.au

(for information: ART Act 2008)

www.police.vic.gov.au

(for information and forms: National Police
Record Checks)

www.health.vic.gov.au/art

(for information and forms: Child Protection Order
Checks; for information: Patient Review Panel)

www.access.org.au

(Australia's National Infertility Network)

www.bdm.vic.gov.au

(Victorian Registry of Births, Deaths and Marriages)

www.immi.gov.au

(Department of Immigration and Citizenship)

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Part 9 - Appendices



- **Read First** The following reference sections provide answers to frequently asked questions. If you need further information, please ask a nurse coordinator.

Glossary

Adhesions

Fibrous-like strands of scar tissue which may develop inside the pelvis, abdomen or uterus after previous surgery – they may cause an embryo to fail to implant

AI

Assisted Insemination

Amenorrhoea

Absence of menstruation

ART

(Assisted Reproductive Treatment)

Any form of medical intervention to assist conception

Biochemical Pregnancy

When the blood test shows that implantation and continued embryo development have started, but the pregnancy does not develop further – this is not a miscarriage and a relatively normal menstrual period follows

Chromosomes

The genetic material present in every cell, passed from parent to child – each egg cell and each sperm cell has 23 chromosomes and when they combine to form an embryo the total number becomes 23 pairs

Cryopreservation

Preserving embryos by freezing and storing for use in subsequent treatments where they are thawed and transferred to the uterus – frozen embryos stay healthy for at least the remainder of the woman's reproductive life

Curettage (Curette)

Surgical removal of the contents of the uterus

Ectopic Pregnancy

When the pregnancy develops outside the uterus, almost always in the fallopian tube or tubal remnant – this may be removed by laparoscopic surgery, sometimes preserving the tube and sometimes removing it; alternatively, it can be treated using a drug called Methotrexate. 1/3 of Ectopic Pregnancies resolve on their own

Embryo

An egg that has fertilised and undergone one or more cell divisions taking it to the 2 cell, 4 cell or 6 cell stage

ET (Embryo Transfer)

The transfer of an embryo to the woman's uterus

Fallopian Tubes

The tubes that the egg travels through from the ovary to the uterus – fertilisation normally occurs here

Fertilisation

When a sperm cell and an egg cell fuse to form an embryo

Fibroids

Non-cancerous growths inside the uterus – they can interfere with implantation of an embryo because they distort the shape of the uterus

Follicle

A fluid-filled area in the ovary which contains the microscopic egg that grows about 2mm per day

Gamete

A germ cell from which all others start, so gamete refers to the egg in a woman and the sperm in a man – normal human gametes have 23 chromosomes and a fertilised egg has 46 chromosomes (23 from the woman and 23 from the man)

Gonadotrophins

A highly purified synthetic follicle stimulating hormone that is given daily by injection to increase the number of follicles produced so more eggs can be collected

Hysteroscopy

A procedure where a fine telescope-like instrument (a hysteroscope) is used to examine the inside of the uterus (inserted through the opening at the neck of the uterus)

ICSI (Intra-Cytoplasmic Sperm Injection)

A method of sperm micro-injection involving the injection of a single sperm into the egg

Implantation

The time at which the fertilised egg embeds in the lining of the uterus

Intrauterine Device

A contraceptive device that is inserted into the uterus to prevent pregnancy

IUI (Intrauterine Insemination)

Intrauterine Insemination of partner's sperm

IVF (In-Vitro Fertilisation)

When fertilisation of the egg by the sperm takes place literally in glass (in vitro) outside the body, in our laboratory

LH (Luteinising Hormone)

Produced by the pituitary gland in women and helps stimulate ovulation

Lucrin / Synarel

A synthetic hormone which initially stimulates and then suppresses the release of gonadotrophins from the pituitary gland – its main advantage is it prevents ovulation occurring before it is expected

Luteal Phase

The second part of a woman's monthly cycle (the first part ends with ovulation or egg retrieval) that prepares the uterus for implantation – in the natural cycle it lasts for 11 to 17 days with an average of 14 days and it ends with menstruation. Luteal phase support is given with vaginal medication gel or spaced hCG injections to prevent menstruation starting less than 11 days from egg collection as it may do in stimulated cycles

Oligomenorrhoea

Infrequent menstruation

Oocyte

The female reproductive cell, or the egg

OPU (Oocyte Pick Up)

Egg retrieval

Pituitary Hormones

The pituitary gland is situated at the base of the brain and part of its role is to produce hormones necessary for a follicle to develop and ovulation to occur

PICSI

The PICSI dish is designed to aid in the selection of the best mature sperm for micro-injection. When a sample of sperm is added to the PICSI dish, the "best" sperm will bind to the hyaluronan droplet present in the PICSI dish. These sperm can then be easily selected by the scientist and used to inject the oocyte.

Polyyps

A general term to describe a mushroom-shaped mass of tissue – polyps in the uterus are benign, but may interfere with implantation or growth of the foetus

Polyspermy

When more than one sperm has penetrated and fertilised the egg so there is an embryo with an abnormal number of chromosomes – such embryos are discarded because they have no potential to develop into normal babies

Vaginal Pessaries

Used following embryo transfer to delay a menstrual period and prevent the luteal phase in a stimulated cycle being too short

Stimulation

A drug treatment to stimulate an optimal number of follicles

Trigger Injection

The hCG / Ovidrel / Pregnyl injection assists timing of ovulation

VARTA

Victorian Assisted Reproductive Treatment Authority

Vas Deferens

The tubes that carry sperm from the testicles

Medication Used In Art Treatments

WARNING

If you are already pregnant you should not use ART medications. Every effort should be made to confirm that a woman is not pregnant before starting a course of ART medications.

The following is a summary only. Please ask a nurse coordinator if you would like further information.

Please let a nurse coordinator know if you are taking any medications or naturopathy preparations. Some may contain hormones that could harm your fertility treatment.

Clomiphene Citrate (Clomid, Serophene)

- > widely known as the 'fertility drug'
- > a synthetic hormone that causes the pituitary gland to produce more Follicle Stimulating Hormone (FSH) than in the natural cycle
- > used in combination with gonadotrophin injections
- > comes in tablet form

Most Common Side Effects

Ovarian Hyperstimulation Syndrome (OHSS) is common and potentially serious – see page 30 for more information.

Most women notice no side effects.

No long-term adverse effects.

Some women have unpleasant menopause-type symptoms during the 5 days when taking the drug, and sometimes for a few days following, such as hot flushes, mood swings, breast tenderness, irritability and headaches.

Rare symptom – visual symptoms of flashing lights and halos around objects. Please report this symptom to a nurse coordinator.

There have been many studies to see whether there is a link between this drug and birth defects. No link has been found.

Gonadotrophins Bemfol, Elonva, Menopur Puregon or Gonal-F

- > a highly purified synthetic FSH
- > administered as a subcutaneous (just under the skin) injection
- > used to increase the amount of FSH in the woman's circulation so that all follicles in her ovary that are capable of growing get enough 'fuel' to help them continue to grow healthily (in a natural cycle all but one follicle would be deprived of this 'fuel')

Most Common Side Effects

Ovarian Hyperstimulation Syndrome (OHSS) is common and potentially serious – see page 30 for more information.

Some women notice pain at the injection site.

Rare symptom – an itch and a generalised drug reaction rash at the injection site. Please report this symptom to a nurse coordinator.

hCG – Human Chorionic Gonadotrophin (Ovidrel or Pregnyl)

- > a hormone that occurs naturally – used as an ovulation trigger
- > hCG causes eggs to be released from the ovaries and allows them to become fertilised
- > hCG causes the production of progesterone from the follicle that has released its egg
- > sometimes used in low doses after embryo transfer to prevent menstruation starting earlier than expected
- > sometimes used in low doses to improve egg quality during treatment

Most Common Side Effects

Some women notice breast enlargement and ovarian tenderness.

Gn RH Agonists (Decapeptyl)

- > modified hormones
- > used to control timing of the egg pick up in IVF stimulation cycles
- > works at the level of the pituitary gland to prevent the release of the hormones that bring about ovulation
- > Synarel is a nasal spray and is administered by inhalation
- > Lucrin is used as an alternative to Synarel and is administered as a daily injection (0.1 to 0.2 mls) Decapeptyl 100mcg injection.

Most Common Side Effects

Most women notice no side effects.

Some women notice hot flushes, headaches and nausea.

GnRh Antagonists

(Cetrotide, Orgalutran)

- > new drugs used to block ovulation during IVF stimulation cycles
- > avoids the need to use Synarel or Lucrin
- > allows for a shorter treatment cycle
- > reduces the risk of hyperstimulation
- > used in more naturally based treatment cycles

Letrozole

- > works as an aromatase inhibitor (in the normal human reproductive system, oestrogen (female hormone) is produced when androgens (male hormone) are converted by an enzyme, aromatase – Letrozole stops this process by blocking the action of aromatase)
- > produces a fall in oestrogen levels which then enhances the release of Follicle Stimulating

Hormone (FSH) from the pituitary gland in the base of the brain, stimulating the growth of follicles and eggs in the ovary

- > is the preferred option, when used with FSH, in IUI cycles
- > in Australia, Letrozole is most commonly used to reduce the likelihood of breast cancer recurring in women with the diagnosis because many breast cancers are oestrogen dependant and Letrozole produces a fall in oestrogen levels. It is not a chemotherapy drug. The half life of letrozole is 45 hours, meaning that it essentially disappears from the system after 9 days.
- > in Europe, the United States and some Australian clinics, Letrozole is used in 5-day courses to induce ovulation as well as in IVF cycles.

BENEFIT It reduces side effects of nausea, hot flushes and, rarely, headaches (compared to other oral stimulating hormone medication).

BENEFIT It achieves comparable pregnancy rates to other drugs.

BENEFIT When used in conjunction with FSH, it can be useful in improving pregnancy outcomes in women who do not produce a high number of eggs in ART cycles.

BENEFIT For women with PCOS (Polycystic Ovary Syndrome), it is more likely to cause a single egg to be produced.

BENEFIT In comparative studies, it has been shown to give similar pregnancy results to Clomid, but is associated with a lower rate of miscarriage after conception.

Important – as is the case in all types of ART, the results of treatment are mostly dependant on the underlying cause of a couple's infertility.

Are there any concerns about using Letrozole in ART?

There were some initial concerns about increased rates of rare abnormalities in babies born after using Letrozole. However, a recent comparative study in Canada looked at 911 babies conceived after using Letrozole or Clomid. The study suggested a lower rate of problems among the Letrozole group (1.2%) compared to the Clomid group (3%).

Important – babies born to parents with fertility problems have a higher rate of birth abnormalities, but overall rates are still very low (about 1-1.5%). It is unclear whether this rate is due to the treatment process or the underlying cause of a couple's infertility.

Oral Contraceptive Pill

- > used to regulate a woman's menstrual periods
- > used in combination with the stimulation drugs to ensure the timing of egg pick up is predictable – to help us plan your treatment cycle
- > used widely by women to control their fertility –if you have used it and did not find it suitable you should not take it during IVF treatment
- > women over 37 years who smoke or who have high blood pressure may not be able to take the pill
- > women with a history of liver problems or thrombosis should avoid taking it

Most Common Side Effects

Some women notice nausea, bloating, weight gain and mood swings.

Oestradiol Valerate (Progynova)

- > a hormone
- > used to prepare the lining of the uterus prior to progesterone pessary therapy and embryo transfer in frozen thaw HRT cycles

Most Common Side Effects

Some women notice nausea and tender breasts (similar to early pregnancy symptoms.)

These symptoms are more common when higher doses are used – this is sometimes necessary to develop the lining of the uterus properly.

Norethisterone (Primolut N)

- > used in clinics since the 1960s
- > a synthetic product
- > induces similar effects to the body's own progesterone
- > used to control the cycle and timing of egg pick up
- > this drug or the pill is used worldwide during pre-treatment to plan the woman's stimulated cycle

Most Common Side Effects

Side effects are rare because of the low dosage we use and the short duration of treatment.

Some women notice breast tenderness, bloating and mood swings.

Progesterone Supplements

(used following embryo transfer)

- > used to overcome the problem of a short cycle in the second half (or luteal phase)
- > for women having freeze thaw embryo transfers, to keep the pregnancy attached to the uterus until the 10th week of pregnancy

Most Common Side Effects

Some women notice cramps, headaches, breast tenderness and mood swings.

Luteinising Hormone Test Kits (Seratec® – LHMAX)

- > used for patients having treatment for Ovulation Induction, DI, IUI and Freeze Thaw cycles
- > a urine test kit that detects a rise or 'surge' in Luteinising Hormone (LH) that occurs the day before ovulation

It allows us to...

- > identify your ovulation days
- > arrange the correct day for your procedure

Instructions For Using Seratec

The nurse coordinator will...

- > advise you on the specific day to start testing

You must...

- > not freeze or store the kit at a temperature higher than 30°C (it can be refrigerated)
- > make sure the kit is at room temperature before use
- > follow the instructions exactly
- > test urine that has been in the bladder for at least 4 hours

- > collect the urine in a clean, dry container (eg jar, paper cup)
- > remove the test tray and pipette (dropper) from the pouch
- > fill the pipette with urine by squeezing its top
- > place 5 drops of urine from the pipette into the circular 'sample well'

If it is not possible to do the test at the time of collecting the urine, cover the container and refrigerate. Return the urine to room temperature before testing.

To read the test...

- > read within 5 minutes after adding the urine
 - if left longer the results may be inaccurate
- > look for a red line in the large square under the 'C' (Control) – if no line appears repeat the test using a new test tray
- > look for an additional line under the 'T' (Test)
- > if there is no line or only a faint line under the 'T' the test is not positive

If you are unsure please ring the clinic and consult with a nurse coordinator.

- > if there is a red line under the 'T' that is the same colour or darker than under the 'C' the test is positive

If the test is positive ring the clinic that day. Tell the reception staff you are ringing with a 'positive' and that you need to speak with a nurse coordinator – the coordinator will schedule further procedures.

[illegible]

[illegible]

Notes

Notes





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