

**Royal Hospital for Women (RHW)**  
**GUIDELINE**  
**COVER SHEET**



**Health**  
South Eastern Sydney  
Local Health District

Ref: T24/66691

<b>NAME OF DOCUMENT</b>	<b>In Vitro Fertilisation (IVF) Pregnancy Outcomes</b>
<b>TYPE OF DOCUMENT</b>	Guideline
<b>DOCUMENT NUMBER</b>	RHW GUID008
<b>DATE OF PUBLICATION</b>	3 October 2024
<b>RISK RATING</b>	Medium
<b>REVIEW DATE</b>	October 2026
<b>FORMER REFERENCE(S)</b>	Nil other documents
<b>EXECUTIVE SPONSOR</b>	FRC Clinic Director
<b>AUTHOR</b>	FRC Nurse Unit Manager
<b>SUMMARY</b>	Patients undergoing In Vitro Fertilisation (IVF) treatment, have an embryo transferred into their uterus, with the goal that the embryo implants into the lining of the uterus to achieve a pregnancy. The embryo(s) transferred to the patient can either originate from the cycle in which they were created (fresh cycle) or be frozen (cryopreserved) and thawed before transfer (thaw cycle). It is an Australia and New Zealand Assisted Reproduction Database (ANZARD) reporting requirement for an Assisted Reproductive Technology (ART) organisation including the Fertility Research Centre (FRC) to follow-up the outcome of all IVF treatments resulting in pregnancy and birth. This is a guideline regarding the follow-up of IVF pregnancy outcomes.
<b>Key Words</b>	IVF, Pregnancy

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*Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.*

## 1 BACKGROUND

Patients undergoing In Vitro Fertilisation (IVF) treatment, have an embryo transferred into their uterus, the embryo implants into the lining of the uterus to achieve a pregnancy. The embryo(s) transferred to the patient can either originate from the cycle in which they were created (fresh cycle) or be frozen (cryopreserved) and thawed before transfer (thaw cycle). It is an Australia and New Zealand Assisted Reproduction Database (ANZARD) reporting requirement for an Assisted Reproductive Technology (ART) organisation including the FRC to follow-up the outcome of all IVF treatments resulting in pregnancy and birth. This is a guideline regarding the follow-up of IVF pregnancy outcomes.

## 2 DEFINITIONS

<b>ANZARD</b>	Australia and New Zealand Assisted Reproduction Database (ANZARD) is a Clinical Quality Registry comprising information on all assisted reproductive technology (ART) treatment cycles undertaken in Australian and New Zealand fertility clinics.
<b>ARTEMIS</b>	Computer program which stores data for all patients at FRC undergoing ART procedures.
<b>ART</b>	Assisted Reproductive Technology
<b>ART organisation</b>	an entity accountable for the delivery of services at one or more ART units
<b>Biochemical Pregnancy</b>	the absence of an identifiable pregnancy on ultrasound examination despite a positive urine or blood $\beta$ -hCG pregnancy test.
<b>Birth outcome</b>	Including all livebirths, still births and neonatal deaths.
<b>Blighted Ovum</b>	A condition that occurs when a gestational sac develops without an embryo (also called anembryonic gestation).
<b>Clinical Pregnancy</b>	A clinical pregnancy must fulfil at least one of the following criteria: <ol style="list-style-type: none"> <li>1. Pregnancy known to be ongoing at 20 weeks</li> <li>2. Evidence by ultrasound of an intrauterine sac and/or foetal heart.</li> <li>3. Examination of products of conception reveal chorionic villi</li> </ol>

	4. A definite ectopic pregnancy that has been diagnosed laparoscopically or by ultrasound
<b>Ectopic Pregnancy</b>	A complication of pregnancy in which the fertilised egg implants outside the uterus
<b>EDD</b>	Estimated Due Date
<b>Embryo Transfer</b>	Refers to the procedure where an embryo is transferred into the woman's uterus using a thin catheter
<b>EPAS</b>	Early Pregnancy Assessment Service
<b>FRC</b>	Fertility and Research Centre
<b>IVF Treatment</b>	Assisted reproduction technology involving the in vitro (outside of body) handling of human oocytes (eggs) and sperm or embryos for the purposes of establishing a pregnancy.
<b>Livebirth</b>	A birth of an infant that meets the WHO definition and is 20 weeks or more gestation or 400 grams or more in birthweight. WHO definition is: The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn.
<b>Missed miscarriage</b>	A missed (or silent) miscarriage is one where the baby has died or not developed but has not been physically miscarried.
<b>Neonatal death</b>	Is the death of a liveborn infant within 28 days of birth.
<b>Non-viable pregnancy</b>	Refers to a pregnancy which is unlikely to result in a live birth. Often there is no detectable foetal heartbeat and/or abnormalities are present in the gestational sac.
<b>Patient</b>	Woman undergoing IVF treatment
<b>Positive Pregnancy Test</b>	Pregnancy tests check your urine or blood for a hormone called human chorionic gonadotropin ( $\beta$ -hCG). This hormone is produced in the placenta of pregnant women made during pregnancy. $\beta$ -hCG is more than 100 mIU/ml
<b>Stillbirth</b>	A stillbirth is the birth of an infant after 20 weeks or more gestation or 400 grams or more birthweight that shows no signs of life.
<b>Viable pregnancy</b>	Refers to a pregnancy in which the foetus is developing intrauterine and has a detectable heartbeat

### 3 RESPONSIBILITIES

#### 3.1 Medical, Midwifery, Nursing, Allied health

#### 3.2 Medical Director

Oversee all policy development and final approval of all clinical documentation in accordance with Reproductive Technology Accreditation Committee (RTAC) Guidelines

### 3.3 Medical staff

Development and management of individualised and comprehensive IVF treatment inclusive of monitoring of results and counselling

### 3.4 Registered Nurses/Midwives

Recognition, education and support to patients undertaking IVF treatment via superovulation inclusive of direct patient contact, triaging and escalation where appropriate

### 3.5 Allied Health

Counselling and emotional support particularly if there are poor outcomes

## 4 PROCEDURE

### 4.1 Clinical Practice

- Book the patient for a  $\beta$ -hCG test 10 days post embryo transfer to determine if a positive pregnancy test has been achieved. If positive ( $>100\text{mIU/ml}$ ), then repeat in 1 week to check for appropriate rise in  $\beta$ -hCG (should double every 48-72hours). If  $<100\text{mIU/ml}$ , then repeat in 48 hours.
- Schedule patient for an ultrasound at 7 weeks of pregnancy to determine viability.
- Obtain a copy of the ultrasound report and place it in the patient's medical record.
- Review pregnancy status in ARTEMIS and update the record accordingly:
  - Pregnancy non-viable – refer patient to Early Pregnancy Assessment Service (EPAS)
  - Pregnancy viable - advise the patient to visit her GP for ongoing care
- Document the estimated due date (EDD) to generate the patient's pregnancy status in ARTEMIS.

#### 4.1.1 Determining Pregnancy Outcome:

- Access the pregnancy log monthly on ARTEMIS to check if the patient is due to give birth.
- Check the eMR for Birth Summary documentation if patient gave birth within SESLHD.
- Contact patient via phone or email (once they have given birth) to inquire about birth outcome (See Attachment 1)
- Record birth outcomes into ARTEMIS.

### 4.2 Documentation

- Antenatal yellow card
- Artemis Database

<b>Artemis Documentation Instructions:</b>	
<b>To see which patients are due:</b>	
<b>Treatments Tab</b>	<b>Select Pregnancy Review</b>
	<b>Click “Refresh” Button</b>
<b>Birth Outcomes</b>	
Search	Select Patient
Latest Cycle Tab	Click Pregnancy
Enter	Delivery Date Delivery Method Gender Tick either Live birth, Still birth of NND (neo-natal death) Enter Baby Name Fill out congenital abnormalities if they exist. If they do not exist keep blank. Enter Hospital Details: If birth was at RHW tick RHW If birth was at another hospital tick Other
Multiple Pregnancy?	On Left hand side Click “Add Baby” if multiple pregnancy to enter additional baby.
Once Report Completed	Tick “Report/ Pregnancy” complete, ensure outcome is “Pregnant- Live Birth”

• **Appendix A: Birth Outcome questions**

**4.3 Education Notes**

- The Australian and New Zealand Assisted Reproduction Database (ANZARD) collects information on assisted reproductive technology (ART) and donor sperm insemination (DI) treatments undertaken in Australian and New Zealand fertility clinics and the resulting pregnancy and birth outcomes.
- The data collected in ANZARD is used for a variety of purposes, including in the production of the Assisted Reproductive Technology in Australia and New Zealand annual report series, to monitor ART treatment practices, success rates and perinatal outcomes, to inform standards for accreditation of fertility clinics, and to provide feedback to clinics on their data compared to national standards.

**4.4 Implementation, Communication, and Education Plan:**

The guideline will be distributed to all medical, nursing and midwifery staff via @health email. The guideline will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and

understood the guideline. The guideline will be uploaded on to the intranet and staff are informed how to access it

#### 4.5 Related Policies/procedures

- In Vitro Fertilisation (IVF) – Management and Treatment of a Superovulation Cycle Clinical Business Rule
- In Vitro Fertilisation (IVF) -Embryo Transfer Clinical Business Rule

#### 4.6 References

- Fertility Society of Australia and New Zealand. (2021). RTAC Scheme. Retrieved March 30, 2023, from <https://www.fertilitysociety.com.au/wp-content/uploads/RTAC-Scheme-20-December-2021.pdf>
- Zegers-Hochschild, F., Adamson, G. D., Dyer, S., Racowsky, C., De Mouzon, J., Sokol, R. Z., Rienzi, L., Sunde, A., Schmidt, L., Cooke, I. D., Simpson, J. L., & Van Der Poel, S. (2017). The International Glossary on Infertility and Fertility Care, 2017. Human Reproduction, 32(9), 1786–1801. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5850297/> <https://doi.org/10.1093/humrep/dex234>

### 5 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this guideline and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal Liaison Officers, health workers or other culturally specific services

### 6 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: [NSW Ministry of Health Policy Directive PD2017\\_044-Interpreters Standard Procedures for Working with Health Care Interpreters.](#)

### 7 NATIONAL STANDARDS

- Standard 1 - Governance
- Standard 5 – Comprehensive Care
- Standard 6 – Communicating for Safety

## 8 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
August 2024	1	NUM Fertility and Research Centre
23.9.24	1	RHW BRGC

## Appendix A

### 8.1 Birth Outcome questions

Baby Name:	
DOB:	
Gender:	Male <input type="checkbox"/> Female <input type="checkbox"/>
Delivery Method	Vaginal <input type="checkbox"/> Caesarean <input type="checkbox"/>
Weight (grams)	
Hospital	RHW <input type="checkbox"/> Other <input type="checkbox"/>
Abnormalities (Record any known congenital abnormalities here)	