

**Follicle Tracking Scanning with use of Ovulation Induction –
Fertility Full Clinical Guideline**

Reference No.: Fertility/09:22/F2

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1. Introduction

Follicle tracking using trans-vaginal ultrasound is frequently used to monitor the effect of drugs given to induce/enhance ovulation. Mostly used for monitoring of ovulation induction (clomiphene, letrozole, gonadotrophins) and as part of an intra-uterine insemination treatment cycle, but can also be used for diagnostic reasons.

2. Purpose and Outcomes

To ensure women who require monitoring whilst on ovulation induction, are scanned and advised appropriately and safely.

- To ensure consistent approach, advice and care delivery, enabling optimum fertile timing.
- To diagnose and reduce the risk of over stimulation (OHSS) through monitoring.
- To recognise need for medical intervention as appropriate.

3. Definitions Used

TV Scan – Transvaginal Ultrasound. This is the imaging method of choice to assess follicular development and endometrial thickness, enabling fertile time to be pinpointed.

FEPS - Fertility and Early Pregnancy Scanning.

Ovulation Induction - Anti-oestrogens **clomifene** (clomiphene) and **letrozole** are used in the treatment of female infertility due to oligomenorrhoea or secondary amenorrhoea (e.g. polycystic ovarian disease). They induce gonadotrophin release by occupying oestrogen receptors in the hypothalamus, thereby interfering with feedback mechanisms. Ovulation induction may be offered empirically to women with limited treatment options (not eligible to NHS funded treatment or clinical reasons).

Day 1 – First day of full flow menstruation bleeding.

4. Key Responsibilities and Duties

Lead Consultant is responsible for deciding which patients requires follicle tracking whilst taking ovulation induction and reviewing of patient as issues arise. It is good practice to offer follicle tracking for all women in their first cycle of ovulation induction or following a change in dosage.

Nurse Specialist are responsible for booking and performing mid-cycle scans, reviewing scan results and advising patients of findings and planning next step in cycle as per guidelines below.

5. Processes for Managing Follicle Tracking Scanning with use of Ovulation Induction

- Prior to commencement of treatment cycle, discuss medication with couple and give and discuss patient information leaflet.
- **Patients must have a BMI of <35 (maximum 34.9).**
- Patients with a BMI between 30-34.9 must be counselled on the reduced effectiveness of ovulation induction with higher BMIs and subsequent higher miscarriage rates and ante-natal complications.
- Clomiphene citrate commenced 50- 100mg/daily from day 2-5 of cycle, for 5 days consecutively. The dose may be increased to a maximum of 150mg/daily if resistant to lower dose.
- Letrozole 2.5mg – 5mg from day 2-5, for 5 days consecutively for women with PCO only. The dose may be increased to a maximum of 7.5mg/daily if resistant to lower dose.
- Cycle starts - 1st day of menstruation.
- Patient telephones with date of 1st day of menstrual cycle to arrange 1st mid cycle scan.
- Time/date for scan confirmed with patient.
- Scan request on Lorenzo for FEPS scan or CRIS for nurse scan by Fertility Nurse Specialist.
- TV scan performed in FEPS or in the Fertility Unit, partner present if patient wishes.
- Seen afterwards by Fertility Nurse Specialist, scan reviewed and discussed as follows;

Ultrasound findings	Action
Follicles of ≥17mm in diameter (no more than 3 in total, including follicles ≥14mm)) with endometrial lining of 7.5mm or thicker	Give HCG injection (Ovitrelle 250mcg/ Gonasi 5000iu subcutaneous injection). Caution patient on risks of multiple pregnancy > 1 follicle. Advice on fertile time given to enable optimal time for intercourse. Arrange intrauterine insemination if appropriate, (see IUI guideline).
Follicles of <17mm in diameter or endometrial lining of < 7.5mm.	Rescan in 24-48 hours. *
Consistent scans showing no follicular growth.	To be discussed with patient's consultant before abandoning tracking. Subsequent cycle/s consider increasing clomiphene/letrozole dosage or treatment with gonadotrophins.
If > 3 follicles (one of ≥17mm and others ≥14mm in diameter).	Abandon cycle. Caution patient on risks of multiple pregnancy and advice against unprotected sexual intercourse. Consider baseline scan in subsequent cycle to ensure atresia of follicles.

- **Luteal Progesterone** - This blood test determines the quality of that particular cycles' ovulation when taken 7 days post ovulation.
- Advise patient when result is available (usually 2 days after sampling) and how to obtain the result.
- Await outcome:

Pregnant Consider viability scan, especially when multiple follicles seen during follicle tracking.

Not pregnant Consider further tracking only if clinically indicated.

6. **Monitoring Compliance and Effectiveness**

Monitoring Requirement :	To be reviewed in line with HFEA processes
Monitoring Method:	Clinical audit carried out ad-hoc. IUI notes are audited bi-annually. HFEA carries out an interim visit with a license renewal visit every fourth year of which an inspection of IUI notes is performed.
Report Prepared by:	Specialist Registrar/ Fertility Nurse Specialist
Monitoring Report presented to:	Fertility Unit Quality Meeting
Frequency of Report	Minimum 6 monthly

7. **Reference**

British National Formulary [BNF British National Formulary - NICE](#)

Documentation Control

Reference Number: FERTILITY/09:22/F2	Version: 5		Status: FINAL	
Version / Amendment	Version	Date	Author	Reason
	1	May 2008		
	2	May 2012	J Dawson Fertility CNS / Mr Jayaprakasan Consultant	3 Year update due
	3	Nov 2015	Fertility Team	3 yearly review
	4	March 2019	Fertility Team	3 yearly review
	5	May 2022	Fertility Team	3 yearly review
Intended Recipients: All staff with responsibility for arranging follicle tracking				
Training and Dissemination: Cascaded electronically through lead sisters/midwives/doctors; Published on Intranet, NHS mail circulation list.				
To be read in conjunction with: Fertility Unit Guidelines				
Consultation with:	Fertility Team			
Business Unit sign off:	12/09/2022: Gynaecology Guidelines Group: Miss B Purwar – Chair (Virtual sign off) 27/09/2022: Gynaecology Development & Governance Committee: Mr J Dasgupta – Chair			
Divisional sign off:	27/09/2022			
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