National
Women & Infants
Health Programme

QUICK SUMMARY DOCUMENT

Fertility – Investigation and Management in Secondary Care

This QSD is a resource for all clinicians working in healthcare in Ireland who are involved in the care of women/couples undergoing Fertility Care.

Following a comprehensive literature review a number of evidence-based recommendations for management of fertility care were agreed upon.

Key Recommendations

Organisation of Fertility Care in Ireland

How should the care of those with infertility be managed?

1. Women/couples seeking a fertility consultation should initially be reviewed in a primary care setting, ideally by their General Practitioner (GP).

Investigation of Infertility

When should infertility investigations be commenced?

2. Couples should be seen together at all fertility consultations. A thorough history and examination focusing on reproductive history factors and assessment of pregnancy related risks should be undertaken at first assessment and updated as required.
3. Investigations should be offered to couples of reproductive age who have been trying to conceive for 12 months or longer with no underlying medical condition.
4. Earlier referral to secondary or tertiary care should be considered after six months of trying to conceive if the female is 36 years of age or older or earlier if there is a known cause of infertility in either intending parent. Immediate referral should be considered if there is no possibility of conception without treatment.
5. All couples planning a pregnancy should have a detailed medical history taken and lifestyle optimisation should be discussed. In women with a complex medical or psychiatric history, referral for pre-pregnancy counselling should be considered and initiated where appropriate.
6. All women planning to conceive and/or engaging with fertility services, should have their varicella status assessed as part of pre-conception counselling either by history or laboratory testing and those who are non-immune should be offered varicella vaccination where possible.

What initial investigations should be performed for men?

7. All men should have an initial semen analysis performed and compared with World Health Organisation (WHO) reference values.

What initial investigations should be performed for women?

8. In women with a regular menstrual cycle, tests to confirm ovulation are not routinely recommended.
9. If confirmation of ovulation is required in women with regular menstrual cycle, this can be done with mid-luteal Progesterone, urinary Luteinizing Hormone (LH) kits or a transvaginal ultrasound.
10. If ovulation cannot be confirmed, hormonal profile on Day 2-4 should be performed to include Follicular Stimulating Hormone (FSH), Luteinizing Hormone (LH) and Oestradiol.

11. Ovarian reserve should be quantified using either Antral Follicle Count (AFC) and/or Anti-Müllerian Hormone (AMH).
12. Baseline transvaginal pelvic ultrasound with a high frequency (5-8MHz) transducer should be ideally performed in the first 10 days of the cycle.
13. Tubal patency should be performed with Hysterosalpingogram (HSG) or Hysterosalpingo-Contrast-Sonography (HyCoSy) where no pelvic pathology is suspected.
14. It is reasonable to test thyroid stimulating hormone (TSH) in women presenting with infertility.

Treatment of Infertility

What is the recommended treatment of couples with unexplained infertility?

15. Ovulation induction should not be offered to women with regular menstrual cycles who have proven ovulation.
16. Ovulation induction for women with unexplained infertility who have proven ovulation is not recommended.
17. Intrauterine insemination (IUI) with ovarian stimulation should be considered first line treatment for couples with unexplained infertility.

What are the treatment options for women with ovulation disorders?

18. Women with anovulatory polycystic ovary syndrome (PCOS) should be offered treatment with Letrozole as first line treatment.
19. At least two cycles of ovulation induction with oral agents should be tracked with ultrasound scanning.
20. If there is no ovulation despite initial therapy, gonadotropins may be considered +/- laparoscopic ovarian drilling.
21. Assisted reproduction may be required for refractory anovulatory PCOS.
22. Disorders of ovulation that are not secondary to PCOS or associated with low oestrogen will not respond to oral ovulation induction (OI) and should be managed with the appropriate form of ovulation induction – e.g gonadotrophins or gonadotropin-releasing hormone (GnRH) pump.

Treatment of women with premature ovarian insufficiency

23. Women with premature ovarian insufficiency should be referred to a dedicated multidisciplinary clinic.
24. Oocyte donation can be considered in women with premature ovarian insufficiency following specialist workup and counselling.

When should Intrauterine Insemination (IUI) be offered?

25. IUI should be offered to heterosexual couples with unexplained infertility, psychosexual disorders (e.g. vaginismus or dyspareunia) or cervical factor who meet defined eligibility criteria.
26. IUI should be offered to all couples/women planning treatment with donor sperm who meet defined eligibility criteria.
27. IUI should be considered for heterosexual couples with; mild male factor, stage I/II endometriosis, mild tubal disease or for women with confirmed ovulation following ovulation induction.
28. IUI should only be considered in stimulated cycles.
29. All IUI cycles should be monitored with ultrasound tracking.
30. IUI should be scheduled approximately 24 hours after LH positive urine if performed, or between 0 to 36 hours following an ovulation trigger.

When should referral to a tertiary care unit be considered?

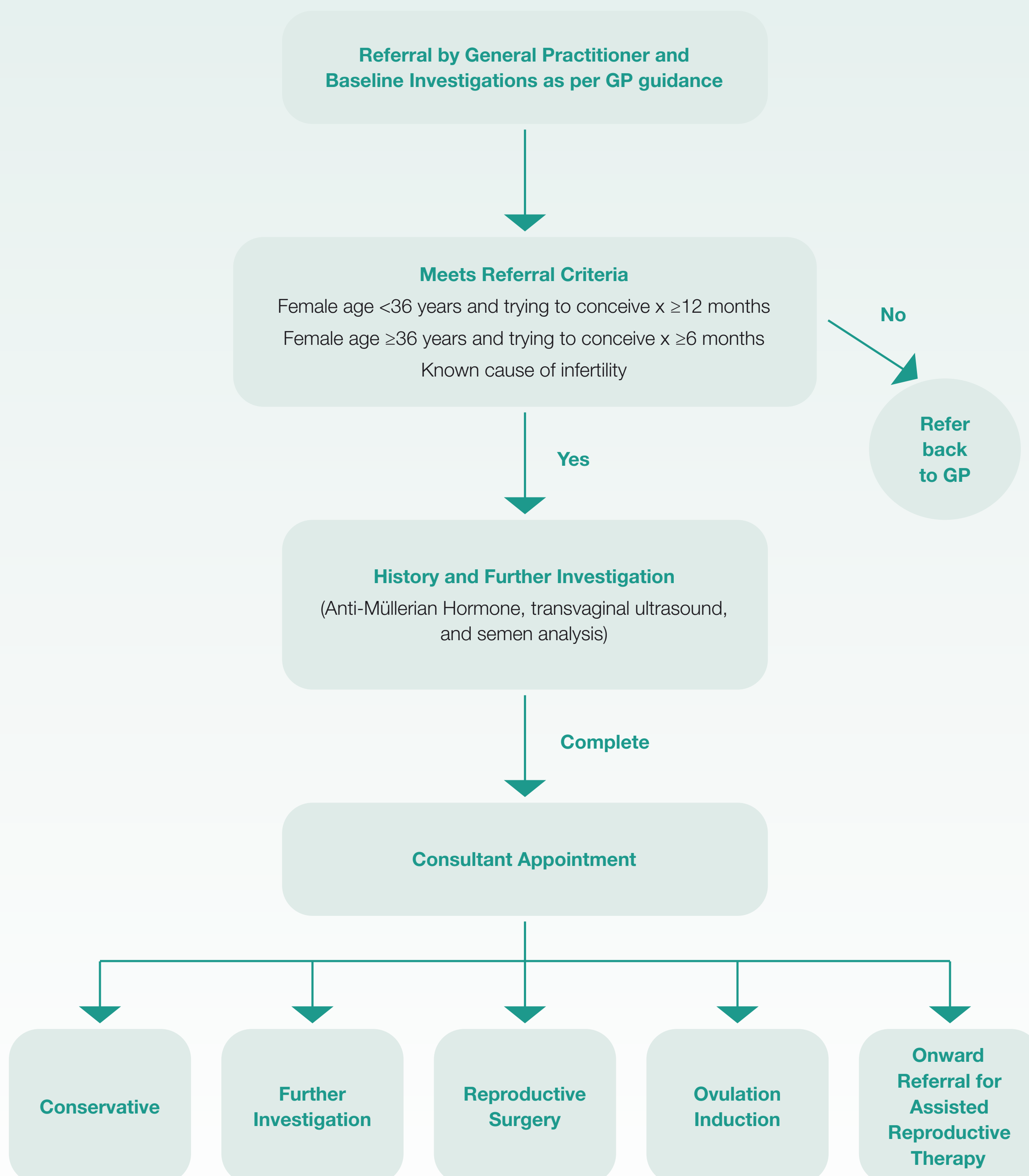
31. Referral to a tertiary fertility clinic should be considered for: women with very low ovarian reserve, 36 years of age or older, unexplained infertility, unsuccessful ovulation induction treatment and/or intrauterine insemination (IUI), donor gamete, fertility preservation and for severe male factor infertility.

Patient Centred Supportive Care

What information and supportive care should be provided to couples regarding mental health and infertility?

32. All couples should be provided with information and access point for supportive care during their first contact with a fertility specialist including information on fertility counselling and support groups.

Algorithm: The Regional Fertility Hub Referral Pathway



Auditable standards

Audit using the key recommendations as indicators should be undertaken to identify where improvements are required and to enable changes as necessary, and to provide evidence of quality improvement initiatives.

Auditable standards for this guideline include:

1. Percentage of referrals seen within 6 months of GP referral
2. Spontaneous pregnancy rates following conservative management
3. Pregnancy success rates (Implantation and Clinical Pregnancy) as defined by ICMART for ovulation induction services
4. Pregnancy success rates (Implantation and Clinical Pregnancy) as defined by ICMART for IUI services
5. Percentage of couples referred onward for IVF and ICSI
6. Numbers of onward referrals to Urologist or Andrologist
7. Numbers of onward referrals for reproductive surgery
8. Spontaneous pregnancy rates following reproductive surgery

Recommended reading:

1. Full Clinical Guideline – https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/
2. HSE Nomenclature for Clinical Audit – https://www.hse.ie/eng/about/who/nqpsd/ncca/nomenclature-a-glossary-of-terms-for-clinical-audit.pdf
3. HSE National Framework for developing Policies, Procedures, Protocols and Guidelines at https://www.hse.ie/eng/about/who/qid/use-of-improvement-methods/nationalframeworkdevelopingpolicies/
4. NICE. Fertility problems: assessment and treatment 2013 https://www.nice.org.uk/guidance/cg156
5. Carson SA, Kallen AN. Diagnosis and management of infertility: a review. Jama. 2021;326(1):65-76 DOI: 10.1001/jama.2021.4788
6. ESHRE. Evidence-based guideline on Unexplained Infertility. 2022. https://www.eshre.eu/Guidelines-and-Legal/Guidelines/Unexplained-infertility
7. WHO. WHO laboratory manual for the examination and processing of human semen. 2021 https://www.who.int/publications/i/item/9789240030787
8. Practice Committee of the American Society for Reproductive M. Evidence-based treatments for couples with unexplained infertility: a guideline. Fertility and sterility. 2020;113(2):305-22 DOI: 10.1016/j.fertnstert.2019.10.014

Authors

Schäler L, O'Leary D, Barry M, Crosby DA. National Clinical Practice Guideline: Fertility-Investigation and Management in Secondary Care. National Women and Infants Health Programme and The Institute of Obstetricians and Gynaecologists. October 2023

https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/

https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and- gynaecology/