

## Patient presents with Subfertility. Initial assessment to include:

### History:

- Length of time trying to conceive
- Past gynaecological, obstetric and medical history and BMI (both partners)
- Menstrual cycle, previous surgery and infections

### Examination:

- As determined by history

### Investigations:

- Chlamydia screen
- AMH (if Central Manchester GP – result will be reviewed by Secondary Care)
- Up to date cervix smear
- Rubella serology if not immunised
- Semen analysis

## Initial advice and management in Primary Care

- Optimise any pre-existing medical conditions (e.g. diabetes, thyroid, epilepsy; consider referral to appropriate secondary service)
- Advise / prescribe folic acid 400mcg per day (5mg if BMI>30 or PMH of diabetes, epilepsy, personal or family history of NT defects, Coeliac disease, sickle cell)
- Confirm has had MMR vaccination (or check Rubella Immunity)
- Weight management, where appropriate – exercise and dietary advice (both partners). BMI ideally 19-25
- Lifestyle advice regarding smoking, alcohol, moderate exercise, over-the-counter & recreational drug use

## Criteria for consideration of Secondary Care referral

1. Failure to conceive after regular unprotected sex for a period of not less than 1 year (or 6 months in patients aged 35 or over), in the absence of known reproductive pathology.
2. For single people and same sex couples, the equivalent evidence would constitute 6 cycles of unstimulated artificial insemination

**OR**  
3. Known or suspected reproductive issue diagnosed in either partner (refer without delay)

**OR**  
4. **Refer without delay** if: i. Patient over 39 years ii. History of chronic viral infection (HIV, HBC, HCV) iii. Patient awaiting treatment that may result in infertility

## Eligibility Criteria For Assisted Conception Treatment In Tertiary Care (e.g. IVF)

All patients meeting the above criteria are eligible for baseline fertility assessments and should be referred. However, please make patients aware that they may not be eligible for all NHS treatment unless criteria decided by their CCG are met. Please also remind patients of the importance of completing the eligibility questionnaire (below) as in order to make a full assessment, both male and female factors need to be considered, where applicable. Patients will be unable to progress through to treatment without having first completed and returned this document to the unit.

**Patient Information**  
[NHS website](#)

**Referral Proforma**  
[Subfertility Referral Form](#)

**Local Guidance**  
[Fertility Pathway Guide](#)

**National Guidance**  
[NICE Guidance](#)

## **What is AMH?**

Anti-Mullerian hormone (AMH) is a substance produced by granulosa cells in ovarian follicles. The level of AMH corresponds to the size of the remaining egg supply- or “ovarian reserve”. As women age, their AMH levels decline, reflecting the decline in their ovarian reserve.

AMH testing can be done on any day of the menstrual cycle because it shows little cyclical variation.

## **When is it helpful to do an AMH test?**

AMH is helpful predicting the response to ovarian stimulation and the number of eggs retrieved during IVF treatment cycles. It is also helpful to plan the stimulation protocol. A very low AMH predicts a poor response and sometimes IVF treatment might not be offered. A high AMH relates to high risk for ovarian hyper-stimulation syndrome during IVF cycles. Hence, AMH is useful in women who are planning to have fertility treatment.

Higher AMH levels are commonly observed in women with polycystic ovarian syndrome (PCOS). (However, as yet, high AMH is not included in the PCOS diagnostic criteria).

Extremely high values (>55 pmol/l) can be caused by rare ovarian tumours and an urgent ultrasound scan is required.

## **What AMH is NOT helpful with?**

**AMH is not related to the chance of spontaneous conception and should not be used as a predictor of natural fertility.**

AMH offers a quantitative and not qualitative assessment of the ovarian reserve. **AMH values do not correlate with the egg quality.**

AMH offers an accurate snapshot of the ovarian reserve and the levels drop with age. **However, currently there is no accurate predictive model to estimate the time of menopause based on the AMH levels.**

## **Summary**

AMH indicates the ovarian reserve and predicts ovarian response to stimulation. Interpretation of the result can be challenging outside an infertility setting. Conclusions regarding diagnosis and treatment options should NOT be made solely on AMH value and a holistic approach as required.

## **Ovarian reserve status**

AMH pmol/L

- <2.6 Very Low Undetectable
- Low 2.6-17
- Satisfactory 17.1-24
- High (OHSS risk in ART) 34.1-55
- >55 Very High (OHSS risk in ART)