

## Anti-Mullerian Hormone (AMH)



### The 'crystal ball' for women

#### Test Details

- Test Name AMH
- Technology EIA
- Sample Instruction 2 ml of Serum
- Test Schedule Daily - 7am
- Reported on Same Day - 5pm

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## Anti-Mullerian Hormone (AMH)



The 'crystal ball' for women  
Not just an ovarian reserve marker....

....But also,

## A Diagnostic & Prognostic

### Prediction of age of menopause<sup>1</sup>

- Using age and **AMH**, the age range in which menopause will subsequently occur can be individually calculated
- Individualized age related fertility information and prevention of menopause-related conditions, like cardiovascular disease and breast carcinoma

### Diagnose Polycystic Ovaries & PCOS<sup>2</sup>

- **AMH** is a more reliable marker than FN (number of follicles per ovary)
- A serum **AMH** level of **>5ng/ml** is more sensitive and specific than a FN >19

## Marker in Non - IVF Setting

### Use in Onco-fertility<sup>3</sup>

- Women whose **AMH** before treatment is low (**below 0.4 ng/mL**) are 16 times likelier to have stopped menstruating after chemotherapy
- Women whose **AMH** before chemotherapy exceeds **0.92 ng/mL** are reportedly almost five times more likely to continue menstruating after treatment

....And also,

## A Predictive marker in IVF setting

### Controlled Ovarian Stimulation (COS) - AMH can predict:

#### Poor Response

- **AMH** fares better than age and FSH in predicting poor response<sup>4</sup>
- A level of **2 pmol/l or 0.3 ng/ml** is indicative of poor response<sup>4</sup> (based on study in Indian women)
- Though no woman should be excluded from IVF program, she can be counseled regarding avoidance of repeated cycles of IVF if first cycle confirms poor response

#### Hyper-response/OHSS

- **AMH** based approach may result in minimization of the risk of OHSS and increased cost effectiveness
- Basal **AMH** levels of approximately **>= 3.5 ng/ml** are predictive of hyper-response /OHSS with high sensitivity and specificity<sup>5</sup>
- The sensitivity and specificity of **AMH** are **82 & 76%** respectively as compared with 82 & 80% respectively, for AFC<sup>6</sup>

### AMH as predictor of live birth after COS

- Extremely low levels of **AMH** are associated with non-pregnancy<sup>7</sup>
- **AMH** and age are independent predictors of live birth<sup>8</sup>

## References

1. Broer S L et al. J Clin Endocrinol Metab, August 2011, 96(8):2532–2539
2. Dewailly D et al. Human Reproduction, Vol.26, No.11 pp. 3123–3129, 2011
3. Dr Richard Anderson, Endocrine Society Annual Meeting, Boston 2011
4. Ruma Satwik et al. Journal of Human Reproductive Sciences; 2012: 206-212

## References

5. Fiedler and Ezcurra Reproductive Biology and Endocrinology 2012, 10:32
6. Loh and Maheshwari. Human Reproduction; 2011: 1-8
7. La Marca et al. Reprod BioMed Online 2011; 22:341–349
8. Khader et al. Journal of Ovarian Research 2013, 6:3