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<b>NAME</b>	: Mrs. POONAM SHIRA	<b>PATIENT ID</b>	: 1672668
<b>AGE/ GENDER</b>	: 31 YRS/FEMALE	<b>REG. NO./LAB NO.</b>	: 012411200053
<b>COLLECTED BY</b>	:	<b>REGISTRATION DATE</b>	: 20/Nov/2024 04:34 PM
<b>REFERRED BY</b>	: LOOMBA HOSPITAL (AMBALA CANTT)	<b>COLLECTION DATE</b>	: 20/Nov/2024 04:56PM
<b>BARCODE NO.</b>	: 01521165	<b>REPORTING DATE</b>	: 20/Nov/2024 05:39PM
<b>CLIENT CODE.</b>	: KOS DIAGNOSTIC LAB		
<b>CLIENT ADDRESS</b>	: 6349/1, NICHOLSON ROAD, AMBALA CANTT		

Test Name	Value	Unit	Biological Reference interval
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## ENDOCRINOLOGY

### ANTI MULLERIAN HORMONE (AMH) GEN II

ANTI MULLERIAN HORMONE (AMH) GEN II: SERUM **0.031<sup>L</sup>** ng/mL 0.05 - 11.00

by ECLIA (ELECTROCHEMILUMINESCENCE IMMUNOASSAY)

#### INTERPRETATION:-

A Correlation of FERTILITY POTENTIAL and AMH levels are :

OVARIAN FERTILITY POTENTIAL	AMH VALUES IN (ng/mL)
OPTIMAL FERTILITY:	4.00 – 6.80 ng/mL
SATISFACTORY FERTILITY:	2.20 – 4.00 ng/mL
LOW FERTILITY:	0.30 – 2.20 ng/mL
VERY LOW/UNDETECTABLE:	0.00 – 0.30 ng/mL
HIGH LEVEL:	>6.8 ng/mL (PCOD/GRANULOSA CELL TUMOUR)

Anti Mullerian Hormone (AMH) is also known as Mullerian Inhibiting Substance provided by sertoli cells of the testis in males and by ovarian granulosa cells in females upto antral stage in females.

#### IN MALES:

1.It is used to evaluate testicular presence and function in infants with intersex conditions or ambiguous genitalia, and to distinguish between cryptorchidism and anorchia in males

#### IN FEMALES:

- During reproductive age, follicular AMH production begins during the primary stage, peaks in preantral stage & has influence on follicular sensitivity to FSH which is important in selection for follicular dominance. AMH levels thus represents the pool or number of primordial follicles but not the quality of oocytes. AMH does not vary significantly during menstrual cycle & hence can be measured independently of day of cycle.
- Polycystic ovarian syndrome can elevate AMH 2 to 5 fold higher than age specific reference range & predict anovulatory, irregular cycles, ovarian tumours like Granulosa cell tumour are often associated with higher AMH levels.
- Obese women are often associated with diminished ovarian reserve and can have 65% lower mean AMH levels than non-obese women.
- In females, AMH levels do not change significantly throughout the menstrual cycle and decrease with age.
- Assess Ovarian Reserve - correlates with the number of antral follicles in the ovaries.
- Evaluate fertility potential and ovarian response in IVF - Women with low AMH levels are more likely to be poor ovarian responders.
- Assess the condition of Polycystic Ovary and premature ovarian failure.

A combination of Age, Ultrasound markers-Ovarian Volume and Antral Follicle Count, AMH and FSH levels are useful for optimal assessment of ovarian reserve. Studies in various fertility clinics are ongoing to establish optimal AMH concentration for predicting response to invitro fertilization, however, given below is suggested interpretative reference.



  
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AMH levels (ng/mL)	Suggested patient Categorization for fertility based on AMH for age group (20 to 45 yrs)	Anticipated Antral Follicle counts	Anticipated FSH levels (day 3)	Anticipated Response to IVF/COH cycle
Below 0.3	Very low	Below 4	Above 20	Negligible/Poor
0.3 to 2.19	Low	4 - 10	Usually 16 - 20	Reduced
2.19 to 4.00	Satisfactory	11 - 25	Within reference range or between 11 - 15	Safe/Normal
Above 4.00	Optimal	Upto 30 and Above	Within reference range or between 11 - 15 or Above 15	Possibly Excessive

**INCREASED:**

1. Polycystic ovarian syndrome (most common)
2. Ovarian Tumour: Granulosa cell tumour

**DECREASED:**

1. Anorchia, Abnormal or absence of testis in males
2. Pseudohermaphroditism
3. Post Menopause

**NOTE:**

1. AMH measurement alone is seldom sufficient for diagnosis and results should be interpreted in the light of clinical finding and other relevant test such as ovarian ultrasonography (In fertility applications); abdominal or testicular ultrasound (Intersex or testicular function applications); measurement of sex steroids (estradiol, Progesterone, Testosterone), FSH, Inhibin B (For fertility), and Inhibin A and B (for tumour work up).
2. Conversion of AMH from ng/mL to pmol/L can be performed by using equation  $1 \text{ ng/mL} = 7.14 \text{ pmol/L}$

\*\*\* End Of Report \*\*\*





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