

Dr. PUJA P SAXENA

Age : 32 Yrs
Gender : Female
PID : 1600D213250118005261
VID : 1600D21320251180003

Collected at: Rhea Healthcare Plot 92
Maa Vaishno puram Pilibhit bypass road
Bareilly 243001 Ph 7827949751

Processed at: Pathkind Labs Bareilly, A 6.
Ekta Nagar Opp. Care Hosp Stadium Rd
U.P. 243122, Ph 7827949751

Collected : 18/01/2025 04:04 PM
Reported : 18/01/2025 06:41 PM
Report Status : **Final**
Ref. By : **DR.PALLAVI BANSAL**

Barcode: 80003642914

Test Name	Result	Biological Ref. Interval	Unit
TSH 3rd Generation Sample : Serum Method : ECLIA	1.117	0.55 - 4.78	µIU/mL
Hormone Levels: LH, FSH & PRL Sample : Serum Method : ECLIA			
Luteinizing Hormone(LH)	14.55	Follicular Phase: 1.9-12.5 Ovulatory Phase : 8.7-76.3 Luteal Phase: 0.5-16.9 Postmenopausal : 15.9-54.0 Contraceptive: 0.7-5.6	mIU/mL
Follicle-Stimulating Hormone(FSH)	6.97	Follicular Phase: 2.5-10.2 Ovulatory Phase: 3.4-33.4 Luteal Phase: 1.5-9.1 Postmenopausal : 23.0 -116.3	mIU/mL
Prolactin (PRL)	10.11	1.80 - 29.20	ng/mL
Anti Mullerian Hormone (AMH) Sample : Serum Method : Manual	4.80	0.71 - 7.59	ng/mL
Estradiol (E2) Sample : Serum Method : ECLIA	8.13	2-3 YEARS - <11.8-29.1 4-9 YEARS - <11.8-43.7 10-11 YEARS - <11.8-175.6 FOLLICULAR PHASE - 19.5-144.2 MIDCYCLE - 63.9-356.7 LUTEAL - 55.8-214.2 POST MENOPAUSAL - 0-32.2	pg/mL



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Authenticated by



Dr. Akash Agrawal Reg
No. UPMC - 11616
MBBS MD
Consultant

Interpretation

Anti Mullerian Hormone (AMH)

Antimullerian hormone (AMH), is produced continuously in the granulosa cells of small follicles during the menstrual cycle and is used as a marker of ovarian reserve. Females with higher concentrations of AMH have a better response to ovarian stimulation and tend to produce more retrievable oocytes than females with low or undetectable AMH. Females at risk of ovarian hyperstimulation syndrome after gonadotropin administration can have significantly elevated AMH concentrations. Polycystic ovarian syndrome can elevate serum AMH concentrations because it is associated with the presence of large numbers of small follicles. Serum AMH concentrations are increased in some patients with ovarian granulosa cell tumors along with other ovarian cancer markers.

Clinical utility:

1. Assessing ovarian status, including ovarian reserve and responsiveness, as part of an evaluation for infertility and assisted reproduction protocols (see table below)

AMH level (ng/mL)	Remarks
<0.5	Poor response
0.5 - <1.0	Limited ovarian reserve
1- 3.5	Optimal response
>3.5	PCOD/ovarian hyperstimulation syndrome

- Assessment of menopausal status, including premature ovarian failure
- Evaluation of infants with ambiguous genitalia and other intersex conditions
- Evaluating testicular function in infants and children
- Monitoring individuals with antimullerian hormone-secreting ovarian granulosa cell tumors

Estradiol (E2)

Clinical Significance :

Estradiol (E2) levels are low in hypogonadism. If low E2 levels are associated with high luteinizing hormone (LH) and follicle stimulating hormone (FSH) levels, it is indicative of primary gonadal failure. The main causes are genetic, autoimmune and toxic (eg, related to chemotherapy or radiation therapy for malignant disease). If LH/FSH levels are low or normal, it is indicative of hypogonadotrophic hypogonadism. This may be due to functional causes, such as starvation, overexercise, severe physical or emotional stress, heavy drug and/or alcohol use and due to organic disease of the hypothalamus or pituitary. Irregular or absent menstrual periods with normal or high E2 levels are seen in possible polycystic ovarian syndrome, androgen producing tumors, or estrogen producing tumors. E2 levels also change during the menstrual cycle. Levels are low Post-menses and then rise during the follicular phase to a pre-ovulatory peak, and fall in the luteal phase. Low baseline levels and a lack of rise, as well as persistent high levels without midcycle rise, are indicative of anovulatory cycles.



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Hormone Levels: LH, FSH & PRL			
COMMENTS / INTERPRETATION :			
<u>FSH</u>			
<ul style="list-style-type: none">Increased FSH levels are associated with menopause and primary ovarian hypofunction in females and primary hypogonadism in males.Decreased FSH levels are found in primary ovarian hyperfunction in females and primary hypergonadism in males.Normal or decreased levels of FSH may be associated with PCOD in females.			
<u>LH</u>			
<ul style="list-style-type: none">Increased LH levels are associated with menopause and primary ovarian hypofunction, PCOD in females and primary hypogonadism in males.Decreased LH levels are found in primary ovarian hyperfunction in females and primary hypergonadism in males.			
<u>Prolactin</u>			
<ul style="list-style-type: none">Useful in aiding the evaluation of pituitary tumors, ammenorrhoea, galactorrhoea, infertility and hypogonadism.			
TSH 3rd Generation			
Clinical Significance :			
TSH levels are elevated in primary hypothyroidism and low in primary hyperthyroidism. Evaluation of TSH is useful in the differential diagnosis of primary from secondary and tertiary hypothyroidism. In primary hypothyroidism, TSH levels are elevated, while in secondary and tertiary hypothyroidism, TSH levels are low or normal. High TSH level in the presence of normal FT4 is called subclinical hypothyroidism and low TSH with normal FT4 is called subclinical hyperthyroidism. Sick, hospitalized patients may have falsely low or transiently elevated TSH. Significant diurnal variation is also seen in TSH levels.			
Guidelines for TSH levels in pregnancy, as per American Thyroid Association, are as follows:			
PREGNANCY TRIMESTER	BIOLOGICAL REFERENCE INTERVAL		UNIT
FIRST TRIMESTER	0.100 - 2.500		µIU/mL
SECOND TRIMESTER	0.200 - 3.000		µIU/mL
THIRD TRIMESTER	0.300 - 3.000		µIU/mL

** End of Report **

