

Serum hCG



7880
Accredited to
ISO 15189:2012

Synonyms

Human Chorionic Gonadotrophin (HCG)

Clinical Indication

For diagnosis of pregnancy, qualitative urine testing by POCT should routinely be used and is reliable from at least 10 days after a missed menstrual period. Follow-up with serum HCG testing is only necessary if there is believed to be an issue with the pregnancy. Ectopic pregnancy should be considered and serum hCG measured in any young woman with unexplained abdominal pain whether or not she has missed a period or had abnormal vaginal bleeding.

Results should not be interpreted in isolation but in the context of clinical features.

Serum hCG can be positive within 7-9 days of conception.

If an ectopic pregnancy or a miscarriage is suspected, two specimens should be taken 48 hours apart. For an intrauterine pregnancy, the hCG should double during this period. Generally the rate of increase is slower for ectopic pregnancies, although for early ectopic pregnancies the hCG can still double in 48 hours.

For a complete miscarriage, the hCG should halve during this period. If the serum hCG is over 5,000 U/L, it should be possible to confirm intrauterine pregnancy by transvaginal (not abdominal) ultrasound scan.

Part of Profile / See Also

Request Form

Combined Pathology manual Blood form or ICE request

Availability / Frequency of Analysis

On request if specific criteria met.

Turnaround Time

Same Day

Patient Preparation

None required

Sample Requirements

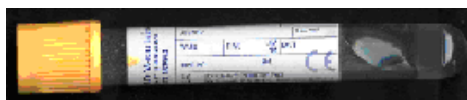
Specimen Type

Serum and plasma

Volume

1 ml

Acceptable Containers



Yellow top (SST) tube



Green top (lithium-heparin) tube



paediatric orange top (lithium-heparin)



paediatric green top (lithium-heparin)

Plain serum samples may also be used.

Reference Range & Units

Non-pregnancy levels < 5 U/mL.

Pregnancy levels:

Time since LMP	Approximate serum hCG (IU/L)
<1 week	5 - 50
1 - 2 weeks	50 - 500
2 - 3 weeks	100 - 5,000
3 - 4 weeks	500 - 10,000
4 - 5 weeks	1,000 - 50,000
5 - 6 weeks	10,000 - 100,000
6 - 8 weeks	15,000 - 200,000
2 - 3 months	10,000 - 100,000

Interferences

Levels may remain raised for up to 2 weeks following childbirth and up to 4 weeks following abortion. Patients receiving courses of hCG (e.g. Pregnyl) or hMG (Perganol) may give false positive results for a few days after administration of the drug.

In post-menopausal women on dialysis, serum hCG can be up to ten times the upper reference limit due to reduced renal excretion of physiologically produced hCG

Interpretation & Clinical

Decision Value (if applicable)

A low serum HCG does not exclude pregnancy. False negative results can occur in very early or abnormal pregnancy.

References

Association for Clinical Biochemistry and Laboratory Medicine Analyte Monographs <http://www.acb.org.uk/docs/default-source/committees/scientific/amalc/hcg.pdf>

Test code

BHCG

Lab Handling

Analysed from primary tube and stored at 4°C
Serum and plasma stable for 7 days at 4°C.