



CA125

Carbohydrate Antigen 125

Synonyms

Clinical Indication

Primary Care (NICE CG 122): CA125 should be measured in primary care if a woman (especially if 50 or over) reports having any of the following symptoms on a persistent or frequent basis particularly more than 12 times per month:

- persistent abdominal distension (women often refer to this as 'bloating')
- feeling full (early satiety) and/or loss of appetite
- pelvic or abdominal pain
- increased urinary urgency and/or frequency.

CA125 should also be measured in women:

- of 50 or over who have experienced symptoms within the last 12 months that suggest irritable bowel syndrome (IBS)
- who have experienced an unexplained change of bowel habit
- who have experienced urinary urgency and/or frequency (increased and persistent or frequent – particularly more than 12 times per month), especially if 50 and over

CA125 is a reliable marker for monitoring epithelial carcinoma of ovary. The specificity of the marker is such that it should not be used as a primary diagnostic test for ovarian carcinoma.

Evidence for use of CA125 in early detection of familial ovarian carcinoma is limited and should be restricted to prospective clinical trial.

CA125 may also be used as part of pre-op assessment for suspected ovarian malignancy. Its measurement in patients with pelvic masses may help differentiate malignant from benign lesions.

The Nice guideline on ovarian cancer recommends calculating an RMI I score, based on characteristics seen on ultrasound, CA125 serum levels and menopausal status.

Part of Profile / See Also

n/a

Request Form

Combined Pathology manual Blood form or ICE request

Availability / Frequency of Analysis

On request, if specific criteria met or requested by Consultant Gynaecologists or Oncologists.

Turnaround Time

Same day

Patient Preparation

Samples should not be taken from patients receiving therapy with high biotin doses (i.e. > 5 mg/day) until at least 8 hours following the last biotin administration.

Sample Requirements

Specimen Type

Serum and plasma

Volume

2 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

Less than 35 kU/L

Interferences
Interpretation & Clinical
Decision Value (if applicable)

Critical Difference 49%, Half Life in Serum: Approx. 5 days

Primary Care (NICE CG 122):

If serum CA125 is 35 IU/ml or greater, an ultrasound scan of the abdomen and pelvis should be arranged.

For any woman who has normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound then assess her carefully for other clinical causes of her symptoms and investigate if appropriate. If no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and/or persistent.

Moderately raised CA125 (usually < 100 kU/L) may be due to normal physiology (e.g. pregnancy or menstruation) or a benign process (e.g. endometriosis, benign ovarian cysts, pelvic inflammation). Ovarian cancer cannot however be excluded and guidelines recommend ultrasound of abdomen and pelvis, particularly in those with relevant symptoms.

Markedly elevated levels have been found in benign liver diseases such as cirrhosis and hepatitis. Extreme elevations can occur in any kind of ascites due to malignant and benign diseases. Although the highest CA 125 values occur in patients suffering from ovarian carcinoma, clearly elevated values are also observed in malignancies of the endometrium, breast, gastrointestinal tract, and various other malignancies High concentrations of CA125 are more likely to be associated with malignancy.

References

NICE CG 122 Ovarian Cancer. NICE NG12 Suspected cancer: recognition and

Referral, Roche kit insert

Test code

C125

Lab Handling

Analysed from primary tube and stored at 4°C.

Serum and plasma stable at 2-8°C for 5 days.