CA125	
Description	CA125 is a high molecular weight transmembrane glycoprotein, also known as MUC16.
Indication	**Main clinical applications** • **Discrimination of suspicious pelvic masses** CA125 may be used as an adjunct in distinguishing benign from malignant disease in women, particularly postmenopausal women presenting with ovarian masses. Benign conditions resulting in elevated CA125 levels may be a confounding factor in premenopausal women. • **Detection of recurrence of ovarian carcinoma post-operatively** Elevated or rising CA125 concentrations predict relapse. However, negative values do not exclude disease presence. • **Monitoring treatment** Serial measurement of CA125 may play a role in monitoring response to chemotherapy. . An inadequate fall in concentration during chemotherapy suggests that treatment is being unsuccessful. • **Determining prognosis** Both pre-operative and post-operative CA125 concentrations may be of prognostic significance. The rate of decline during initial therapy is a strong and independent prognostic indicator in ovarian carcinoma. **Screening** Measure CA125 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 any woman of 50 or over who has experienced symptoms within the last 12 months that suggest irritable bowel syndrome (IBS), because IBS rarely presents for the first time in women of this age.** • If serum CA125 is 35 kU/L or greater, arrange an ultrasound scan of the abdomen and pelvis. • For any woman who has normal serum CA125 (< 35 kU/L), or CA125 of ≥ 35 kU/L but a normal ultrasound: o Assess her carefully for other clinical causes of her symptoms and investigate if appropriate o If no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and/or persistent.
Additional Info	CA125 is a component of the female reproductive tract epithelia, the ocular surface (including the cornea and conjunctiva) and the respiratory tract epithelia, where it creates a hydrophilic environment that acts as a lubricating barrier against foreign particles and infectious agents.
Concurrent Tests	None
Dietary Requirements	None
Interpretation	**Reference range: < 35 KU/L** **Malignancies with elevated levels** • CA125 is elevated in 50% of women with stage I epithelial ovarian cancer, in 90% of stage II and in > 90% stages III and IV. Concentrations correlate with tumour burden and stage. CA125 may be elevated in any adenocarcinoma with advanced disease. • NICE Ovarian cancer recognition guidelines (2005) algorithm for Primary Care

	Benign diseases with elevated levels • Mild elevations are seen in endometriosis and pelvic inflammatory disease. • High levels are seen in acute pancreatitis, cirrhosis, peritonitis and inflammatory pelvic disease. • Levels may be markedly raised in any patient with benign ascites. **Additional cause of elevated levels** • Elevated values may be found in 1-2 % normal healthy individuals. • Blood for CA125 should not be taken during menstruation which may increase serum concentrations 2 - 3 fold. • Mild elevations are seen during the first two trimesters of pregnancy. **A negative CA125 result cannot be used to confirm the absence of cancer in a patient.**
Collection Conditions	None.
Frequency of testing	Minimum retesting intervals: • For screening women with family history of ovarian cancer – 12 months • For monitoring disease recurrence – 1 month Additionally, in diagnostic strategies where imaging is negative, it is recommended to retest women **within 1 month**