CA19.9	
Description	CA 19-9 is a high molecular weight glycoprotein, also known as sialylated Lewis (a) antigen.
Indication	**Main clinical applications:** • Useful in the diagnosis of pancreatic carcinoma in patients with pancreatic masses. • May be a useful preoperative marker for determining the resectability of a pancreatic carcinoma. The tumour is unlikely to be resectable if the CA 19-9 concentration is greater than 250 KU/l. • Surveillance and monitoring therapy in pancreatic carcinoma. Serial CA 19-9 measurements have a greater sensitivity and specificity than individual measurements for determining response to treatment or predicting progressive disease. • May be a diagnostic aid in cholangiocarcinoma. • Levels can be high (hundreds) in the context of jaundice or ascites and this marker **should not** be used routinely in patients with these conditions **unless a pancreatic mass is seen on imaging**. Specialist hepatobiliary interpretation may be required. **CA 19-9 is neither sufficiently specific nor sensitive enough to be used in screening for early pancreatic carcinoma in asymptomatic individuals.**
Additional Info	People who have the Lewis a-negative/b-negative blood group, i.e. who lack the Lewis antigen (a blood type antigen on red blood cells), who account for about 10% of the Caucasian population, are not able to synthesise CA19-9. This is because of a deficiency of a fucosyltransferase enzyme that is needed to produce CA19-9 as well as the Lewis antigen.
Concurrent Tests	None
Dietary Requirements	None
Interpretation	**Reference range: < 35 KU/L** **Malignancies with elevated levels** • Pancreatic carcinoma, cholangiocarcinoma, gastric carcinoma, oesophageal carcinoma and colorectal carcinoma. **Benign diseases with elevated levels** • Acute and chronic pancreatitis, hepatocellular jaundice, cirrhosis, acute cholangitis, cystic fibrosis. • CA 19-9 can be > 5,000 KU/L in cholangitis. **A negative CA 19-9 result cannot be used to confirm the absence of cancer in a patient.**
Collection Conditions	Non-malignant causes of bile duct obstruction can cause very high CA 19-9 levels, which fall when the blockage is cleared. In these cases, it is ideal to wait 1-2 weeks after the blockage is removed to re-check CA 19-9 levels.
Frequency of testing	Minimum retesting interval for monitoring disease recurrence – 1 month