Creatinine clearance	
Description	Measurement of creatinine clearance provides an indication of glomerular filtration rate (GFR) and is used in the assessment of renal function, particularly the early stages of chronic kidney disease (CKD) when creatinine may be within reference range.
Indication	Kidney disease, congestive heart failure, or diabetes. It may also be requested to assess kidney function prior to the administration of some toxic drugs as the dose may be dependent on kidney function.
Additional Info	Creatinine is a waste product of muscle metabolism which is excreted in urine. Creatinine is neither secreted nor reabsorbed in any significant quantity by the renal tubules and hence the relationship between the urinary excretion of creatinine and its plasma concentration can be used as a measure of the GFR. Creatinine clearance is calculated as follows: **Creatinine Clearance** = **[U]V / [P]** **P = [plasma creatinine]** **U = [urine creatinine]** **V = urine volume / min**
Concurrent Tests	N/A
Dietary Requirements	A high intake of meat can cause a rise in serum creatinine and a consequent fall in creatinine clearance
Interpretation	Creatinine clearance is a measure of the GFR, which has to fall by 50% before a significant rise in serum creatinine is seen. Certain drugs, such as aminoglycosides, cimetidine, cisplatin, and cephalosporins can decrease the creatinine clearance measurement. Diuretics can increase the result.
Collection Conditions	Analysis of creatinine clearance requires a 24hr urine collection for **creatinine** analysis and a blood sample taken at some point during the urine collection for serum **creatinine** estimation. It is important that the blood and urine are received in the laboratory as a matched pair. ***Link to 'Collection procedure for 24 hr urine specimens'***
Frequency of testing	As required