Methotrexate

Description	Immunosuppressant drug used at high doses in chemotherapy and at low doses in auto-immune conditions such as rheumatoid arthritis.
Indication	Only samples for patients on high dose therapy will be sent for analysis. Patients on low dose therapy DO NOT require measurement of methotrexate levels
Additional Info	For Patients on low dose therapy, toxicity can be detected by measuring FBC and LFT.
Concurrent Tests	FBC and LFT
Dietary Requirements	None
Interpretation	Levels greater than 1µmol/L after 48hrs require high dose leucovorin rescue therapy. Patients with levels >1µmol/L should be monitored until the methotrexate concentration drops below 0.02µmol/L
Collection Conditions	At least 0.5 mL of Lithium heparin plasma is required. Please send down requests marked as emergency and provide information about dose and timing of samples
Frequency of testing	In toxicity measure 24 hr after completion of therapy then every 24 hr until plasma methotrexate is below cut-off concentration for toxicity (1µmol/L) See: The British Society of Rheumatology Guidelines on Disease Modifying Anti Rheumatic Drug (DMARD) therapy outlines the desired frequency of monitoring. The British Society for Rheumatology - BSR guidelines

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