

11.5 Handling and Storage of Samples for Testing

Sample type	Requirement	Transport and pre-processing storage
Peripheral blood	5mL EDTA minimum (10mL preferred), and fresh PB smear.	Ambient
CD34 assay (PBSCH fresh/frozen or peripheral blood)	Prior consultation with lab required.	Frozen PBSCH transport on dry ice. Fresh PBSCH and PB transport at ambient temp. Store fresh PBSCH at 4°C (fridge), PB at room temperature, if sample not processed immediately.
Estimation of Fetomaternal Haemorrhage	5mL EDTA	Transport at ambient temperature. Store at 4°C prior to transport, or if >4hr delay prior to processing.
Bone marrow aspirate	Fresh sample in RPMI, and fresh aspirate smear.	Ambient
Bone marrow trephine	Fresh sample in RPMI, and either fresh aspirate smear or trephine roll.	Ambient
FNA	Fresh sample in RPMI	Ambient
Pleural or pericardial effusion	Fresh sample	Ambient
CSF	Prior consultation with lab required. External clients: add equal volume of RPMI and send fresh cytospin slide if possible.	Transport at ambient temperature. Store at 4°C if sample not processed immediately.
Tissue biopsy (including core biopsies)	Fresh sample in RPMI	Transport at ambient temperature. Store at 4°C if sample not processed immediately.
Spleen or liver tissue (including core biopsies)	Fresh sample in RPMI. Samples must be processed ASAP because of tissue enzymes. On-call staff must be contacted outside normal working hours.	
Samples with clinical details of ? Myeloma/PC dyscrasia	Samples must be processed ASAP because of loss of plasma cells and CD138 expression over time. On-call staff must be contacted outside normal working hours, and samples should be stored at room temperature (loss of CD138 is accelerated at 4°C).	

Surface marker analysis cannot be performed on samples stored in formalin. Bone marrow trephine or lymph node samples received in formalin are likely to be for histology. RPMI/BM transport media/Tissue transport media is prepared in the cytogenetics laboratory. The media is pink in colour and vials are in the surface markers fridge. If samples are received out of hours in saline, add RPMI and store as indicated above.