

G1.12 SAMPLE STORAGE & DISPOSAL

Clinical significance

Samples must be stored under the correct conditions and for an appropriate amount of time. Where possible sample tracking systems should be used to allow rapid retrieval.

Instructions

Samples should be stored according to the table below in this document. The table includes section, sample type, location, tracking/date order, condition, area or fridge/freezer name, retention period and disposal method.

Samples for police and transplant services are stored in long term storage racks 99 and 999 in LD32 cold room for 2 years. Please also refer to G3.5 Storing samples for and releasing samples to the Police and Coroner.

Disposal

All samples **MUST** be disposed of following Safety SOP S1.25.

Security

All specimens are stored in the fridges and freezers within secure area where only authorized staff have access through security swipe cards or digital padlock.

Risk assessment

All samples are treated as **POTENTIAL BIOHAZARDS** hence, laboratory coats, gloves and eye protection must be worn at all times when handling any open samples.

Automated Haematology							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Track samples	Blood	(On machine and bench cleared to fridge each morning) Fridge	TS-10	(RT initially then moved to Fridge) 4C	LD 31 Cold Room 4°C	36 hours	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Front load samples	Blood	Auto Haem	TrackIT	RT	Auto haem	36 hours	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Slides	Blood	Auto Haem	Date	Room temp	Auto haem	1 week	Disposed into sharps bin
Slides	Marrow	Bench	Date	Room temp	Medics room on Level C	1Year	Disposed into sharps bin
Slides	Marrow		Date	Off-Site Storage	Not Applicable	Indefinitely	Off-site storage
CSF samples	CSF	Auto haem	Date	Room temp	Auto haem	1 week	Place in hard plastic containers (previous reagent bottles) and then disposed off in the yellow clinical waste bag.

Haemostasis & Special Techniques							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Routine Samples e.g. WARF, HEP & CS	Blood	Sample racks	TrackIT	Room temp	Haemostasis & Special techniques department bench	24 hours	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Special Test Samples e.g. Thrombophilia, VWS, factor assays	Stored Plasma	-70°C Freezer	TrackIT	-70°C	Haemostasis & Special techniques department freezer 1 (-70°C)	6 months	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Long-Term Special test samples e.g. First time Thrombophilia, VWS, factor assays	Stored Plasma	-70°C Freezer	TrackIT – long term rack	-70°C	Haemostasis & Special techniques department freezer 1 (-70°C)	1 calendar year	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Specialised Haematology samples e.g. haemoglobinopathy	Blood	Sample racks	Track-IT or Sysmex TS-10	RT then LD31 Cold Room 4°C	LD31 Cold Room 4°C	48 hours after testing	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32

Blood Transfusion							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
All Samples	All samples	LD16	TrackIT	2-8C	Reagent Fridge	10 days	Clinical waste bins
Rare Antibodies	Plasma	-70°C Freezer	TrackIT	-70°C	Haemostasis & Special techniques department (-70°C)	Indefinitely	Clinical waste bins

Specimen Reception							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Surplus samples	Blood	Reception	None	Room temp for 24 hr then 4c	LD32	1 week	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Surplus timed urine	Urine	Reception	None	Room temp	LD32	24 hours	Sluice
Surplus random urines/fluids	Urine	Reception	None	Room temp then 4c	LD32	1 week	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
CSF Samples	CSF	Reception	None	Room temp then 4c	LD32	1 week	Special CSF autoclave bin

Trace Elements							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
All Tests	Blood/Plasma/Urine	LD60 (Fridge)	Track-it	4°C	LD60 pre-analyses 4°C. Post analyses LD60 -20C	1 Month	Clinical yellow stream waste bins

Specialist Biochemistry							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/ freezer Name/No	Retention period	Disposal method
Routine automated / manual samples	Serum/ urine	Freezer Room	Trackit	.-20C	Freezer Room LC25 /Freezer 1, Freezer 2, Freezer 3	1 month	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Blood spots	Blood spots	Manual lab area –LC 38	Date	Room temp	Under bench cupboard	2 months	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Faecal Elastase	Faeces	LC25	Date	-20'C	white freezer asset No. AB0027 in room LC25	2 weeks	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
HbA1c	EDTA Whole blood	Area –LC 38	Trackit	2 – 8 C	Fridge 1	2 days	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Calculi	Renal / Gall Bladder / other	LC38	None	Ambient	LC38 under Bench	1 year	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32

Automated Biochemistry							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Track samples	Blood/Urine/Fluids	Stock yard	Track	4C	Track fridge	24hours	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Front load samples	Blood/Urine/Fluids / CSF	Fridge	Track it	4C	Foster fridge/llab	24 hours	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
CSF primary samples	CSF	Reception	None	Room temp then 4c	Foster fridge/llab	1 week	Special CSF autoclave bin
Urine samples for PBG and Drug screens	Urine	Freezer	None	-20C	Freezer in D Level wash area	1 month	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32

Critical Care Laboratory							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Blood Gases	Blood Gases	Bench	Manual tracking	Room Temp	Not Applicable	N/A	Disposed into sharps bin after analysis
All other Tests	All other tests	Fridge 4C	Manual tracking	4C	CCL fridge A	14 days	Disposed into sharps bin after 14 days

Chromatography							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
5HIAA	Urine	Met lab	rack it	2-8° C	LD 32 Cold room	1 month	Clinical waste bins
Metanephrines	Urine	LCMS	rack it	2-8°C	LD 32 Cold room	1 month	Clinical waste bins
HMMA	Urine	Met lab	rack it	2-8°C	LD 32 Cold room	1 month	Clinical waste bins
Vitamins A&E,	Serum	Met lab	rack it	2-8°C	LD 32 Cold room	1 month	Clinical waste bins
Amino acids	Serum	Met lab	rack it	<-60° C	LD 39 New Brunswick ultra low temperature freezer	1 month	Clinical waste bins
Amino acids	CSF	Met lab	rack it	<-60°C	LD 39 New Brunswick ultra low temperature freezer	1 month	Clinical waste bins
Amino acids	Urine	Met lab	rack it	<-60°C	LD 39 New Brunswick ultra low temperature freezer	1 month	Clinical waste bins
Organic acids	Urine	Met lab	rack it	<-60°C	LD 39 New Brunswick ultra low temperature freezer	1 week	Clinical waste bins
Organic acids	Urine	Met lab	rack it	<-18° C	LD 39 freezer	1 month	Clinical waste bins
Phenylalanine & Tyrosine	Bloodspot	Met lab	Date order	Room temp	LD 33 bench	1 month	Clinical waste bins
17-Hydroxyprogesterone	Bloodspot	LCMS	Date order	Room temp	LD 33 bench	1 month	Clinical waste bins
Acyl carnitines	Bloodspot	LCMS	Date order	Room temp	LD 33 bench	1 month	Clinical waste bins
Androstenedione	Serum	LCMS	rack it	<-18° C	LD 39 FREEZER	1 month	Clinical waste bins
DHEAS	Serum	LCMS	rack it	<-18° C	LD 39 FREEZER	1 month	Clinical waste bins
Metenephrines	Urine	LCMS	Rack it	<-18° C	LD 39 FREEZER	1 month	Clinical waste bins
Cortisol	Urine	LCMS	Rack it	<-18° C	LD 39 FREEZER	1 month	Clinical waste bins
17-Hydroxyprogesterone	Serum	LCMS	rack it	<-18° C	LD 39 FREEZER	1 month	Clinical waste bins

Chromatography							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Testosterone by LC-MS-MS	Serum	LCMS	rack it	<-18° C	LD 39 freezer	1 month	Clinical waste bins

Immunology							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Flow cytometry	Blood	LC41	Lab number	2-8C	Fridge 3	1 week	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Flow cytometry	Bone marrow	LC41	Lab number	2-8C	Fridge 3	1 week	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Flow cytometry	CSF	LC41	Lab number	2-8C	Fridge 3	1 week	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Flow cytometry	Pleural fluid	LC41	Lab number	2-8C	Fridge 3	1 week	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Immunology	Blood/Plasma/CSF/Urine/Faeces	Main Labs	TrackIT	4C	Various throughout dept	30 Days (min) 90 days (max) Based on sample turnover	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32

Immunology							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Immunology	Blood/Plasma/CSF/Urine/Faeces/Faecal extracts	Immunology And Rm LC25	TrackIT	-20C	Immunology and room LC25	30 Days (min) 90 days (max) Based on sample turnover	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Immunology	Serum/Plasma	LC25	Specific box	-70C	SANYO	Disposed off once analysed and results authorised	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32
Longterm storage samples- indefinitely	Blood/Plasma/CSF	Scandinova Freezer 1	Labelled container and lab no. Entered in dedicated book (Manual)	-20C	Scandinova Freezer 1	Long term storage defined by clinical need	Yellow clinical waste bags disposed into large yellow clinical waste bin in cold room LD32

Molecular Pathology. Please also refer to MP1.9							
Section	Specimen type	Location	Tracking / Date Order	Conditions	Area/fridge/freezer Name/No	Retention period	Disposal method
Molecular Pathology	Blood / Bone marrow, non FFPE primary samples	Lab	TrackIT	4°C	Pre PCR fridge	Min one month	Autoclave
Molecular Pathology	FFPE	Lab	None	Room temp	Pre PCR lab	Until result validation	Returned to requesting laboratory
Molecular Pathology	DNA	Lab	TrackIt	4°C while in use then in freezer for long term storage	Pre PCR fridge and freezer	Approx 3 years except for Transplant pre/donor samples must be kept indefinitely	Autoclave
Molecular Pathology	Cell lysates	Lab	None, but TrackIt for MRD back up samples	-80 °C	Freezer	BCR-ABL approx 3 months, SLN lysates until sent to BioBank at Uni of Southampton	Autoclave
Molecular Pathology	cDNA	Lab	Date order	>-15°C	Freezer	Approx 6 months	Autoclave