

Biochemistry Tests: Sample Volumes and Advice

Please note that to prevent iatrogenic anaemia the, correct sample type and smallest tube volume for the test panel requested should be selected. The selected tube should be filled to the indicated fill volume which has been validated and will reduce the potential for haemolysis

For adults one fully filled 3 ml Lithium Heparin vacuette will generally contain sufficient blood for analysis of all profiles*. However this does depend on the HCT of the patient and assumes that a minimum of 1ml of plasma is able to be separated.

Paediatric sample bottles (microtainers) should be filled to a minimum 500ul. This usually guarantees sufficient blood for the analysis of general biochemistry profiles (assuming a normal haematocrit). If the haematocrit is raised not all tests may be possible and a repeat sample may be required. In which case, the minimum sample needed will be 800ul.

In cases where it was not possible to collect sufficient blood (500ul) please estimate the volume collected and based on the info below select carefully the priority tests that can be obtained with the given volume. Please note we cannot define the order of testing. Therefore if the sample is insufficient for the panel of tests requested, you may not receive a result for a priority test. A cautious selection of test is advised.

Sample no	Volume (pre-spin)	Plasma recovered	Examples of Profiles/tests possible
Sample 1	900ul (Full)	500ul	UE, CRP, Glu, D Bili, Liver, Bone, Mg, , LDH, TFT, B12, IgG
Sample 2	600ul	300ul	UE, CRP, Glu, D Bili, Liver, Bone, Mg, LDH, TFT, B12, IgG
sample 3	400ul	200ul	UE, CRP, Glu, D Bili, Liver, Bone, Mg
Sample 4	300ul	150ul	UE, CRP, Glu, D Bili, Liver
Sample 5	200ul	100ul	UE, CRP, Glu, D Bili

Note: Glucose only available on green top if sample <4hours old.

***NB!** For tests not performed in Southern Trust laboratories please send separate sample(s) (and request form if possible).

Where both HbA1c and Full Blood Count are required please send two separate EDTA samples