S-H-Y-P-S
NHS York and Scarborough Teaching Hospitals NHS Foundation Trust
Scarborough, Hull and York Pathology Service

Coagulation Send Away Tests	
Test	**Page**

Test	Alpha-2-Antiplasmin deficiency screen
Common Abbreviations	A2A
Profile	Alpha-2-antiplasmin deficiency screen
Clinical indication	Reduced α2 antiplasmin activity is found in cases of hyperfibrinolysis that can occur as a complication of disseminated intravascular coagulation (DIC) or in operations on organs with a high content of plasminogen activators. An α2-antiplasmin deficiency may also indicate a synthesis disorder (e.g. in severe liver cell damage). The determination of α2-antiplasmin is also indicated for additional assessment of problematic cases during fibrinolytic therapy.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	1x blue top citrate sample
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	14 days
Laboratory	Haematology Laboratory, St James University Hospital, Beckett Street, Leeds, LS9 7TF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Factor VIII Binding Assay
Common Abbreviations	F8B
Profile	Factor VIII Binding Assay
Clinical indication	The Factor VIII binding assay can be used to differentiate haemophilia A from type 2N Von Willebrand disease in patients with mild/moderately reduced Factor VIII activity. Abnormal FVIII binding is observed in type 2N Von Willebrand disease.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	1x blue top citrate sample
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	4-6 months
Laboratory	Coagulation Department (H floor), Pathology, Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Factor XIII Assay
Common Abbreviations	FXIII Assay
Profile	Factor XIII Assay
Clinical indication	Reduced FXIII levels may occur in congenital FXIII deficiency, as an acquired deficiency or through unregulated activation of coagulation as in a consumption coagulopathy. Congenital FXIII deficiency is a rare bleeding disorder commonly linked to poor wound healing.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	Adult: 1x blue top citrate sample Paediatric: 2x blue top citrate samples
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	Routine: 2 weeks Urgent: 24 hours
Laboratory	Coagulation Laboratory (H floor), Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Genetic Mutation Analysis - Coagulation
Common Abbreviations	F8M, F8MF, F9MF, VMUT, FXM, F7M, FXIM, MYH9
Profile	FVIII inversion analysis, FVIII mutation screen, FIX mutation screen, von Willebrand disease mutation screen, FX mutation screen, FVII mutation screen, FXI mutation Screen, Myosin Heavy Chain 9 mutation screen
Clinical indication	Genetic confirmation of an inherited bleeding disorder
Specimen type	Blood
Sample type	Purple top EDTA or blue top citrate
Minimum volume	1 EDTA or citrated samples for adults 2 EDTA or citrated paediatric samples for children
Special precautions	Request must be authorised by a Haematology Consultant/Registrar. A molecular genetics request form must be completed by the requesting clinician. A consent form signed by the patient must be sent with requests for genetic tests. This should arrive from the haemophilia clinic with the samples. Additional request forms can be downloaded at : https://www.sheffieldchildrens.nhs.uk/sdgs/
Stability	Provided by referral laboratory
Turn-around time	8 weeks
Laboratory	Sheffield Diagnostic Genetics Service, C Floor, Blue Wing, Sheffield Children's NHS Trust, Western Bank, Sheffield, S10 2TH
Reference interval	Reference interval Provided by referral laboratory
Limitations	N/A

Test	Plasminogen Activity
Common Abbreviations	N/A Profile Clinical indication Specimen type Sample type Minimum volume Special precautions Stability Turn-around time Laboratory Reference interval
Profile	Plasminogen Activity
Clinical indication	The most common manifestation of plasminogen deficiency is ligneous conjunctivitis but pseudoemebranes can develop in a variety of areas.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	Adult: 1x blue top citrate sample Paediatric: 2x blue top citrate samples
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	14 days
Laboratory	Coagulation Laboratory (H floor), Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Vaccine-Induced Thrombotic Thrombocytopenia Screening
Common Abbreviations	VITT Screen
Profile	Vaccine-Induced Thrombotic Thrombocytopenia Screening
Clinical indication	Guidance recommends testing in patients who present with a thrombosis post-Covid-19 Vaccination and platelets below 150 $x10^9$ /L and/or D-Dimer > 4000 ng/ml FEU.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	2x blue top citrate sample
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	24 hours
Laboratory	Coagulation Laboratory (H floor), Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Von Willebrand Factor Cleaving Protein (ADAMTS-13) Assay
Common Abbreviations	ADAMTS-13
Profile	Von Willebrand Factor Cleaving Protein (ADAMTS-13) Assay
Clinical indication	ADAMTS-13 is an enzyme (vWF-cleaving protease) that specifically cleaves unusually large vWF multimers (ULvWF) which induce platelet thrombus formation under high shear stress. If the activity is lowered, ULvWF may accumulate within the blood causing thrombosis due to platelet aggregation, which in turn may lead to Thrombotic Thrombocytopenic Purpura (TTP).
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	2x blue top citrate samples
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	Routine: 2 weeks Urgent: 24 hours
Laboratory	Coagulation Department (H floor), Pathology, Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Von Willebrand Factor (vWF) Multimer Analysis
Common Abbreviations	vWF multimers
Profile	vWF Multimer Analysis
Clinical indication	Von Willebrand disease (VWD) is classified into the quantitative type 1 disorder, the qualitative type 2 disorders (A, B, M, N) and type 3 which is an absence of VWF. Multimer analysis will enable confirmation and subtyping of VWD in patients suspected of the disorder. An overall loss of multimers is observed in type 1 VWD, a loss of high (and in some cases, intermediate) molecular weight multimers is observed with type 2A and type 2B VWD, a normal multimer pattern is observed in types 2M and 2N VWD and an absence of multimers is observed in type 3 VWD.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	1x blue top citrate sample
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	6 months
Laboratory	Coagulation Laboratory (H floor), Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	Warfarin Assay
Common Abbreviations	N/A
Profile	Warfarin Assay
Clinical indication	Analysis of plasma warfarin concentrations can provide additional insight in to complex cases where conventional coagulation assays are insufficient for diagnosis. Plasma warfarin levels are useful in assessing compliance to warfarin therapy or identifying resistance and when used in combination with our other vitamin K markers it is possible to unravel complex and unusual scenarios such as acquired or hereditary resistance to warfarin and poisoning by vitamin K antagonists such as warfarin or the more potent rodenticide superwarfarins.
Specimen type	Blood
Sample type	Gold top clotted
Minimum volume	1x gold top clotted sample
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	14 days
Laboratory	Nutristasis Department, Haemostasis and Thrombosis Laboratories 4th Floor, North Wing, St Thomas' Hospital, Westminster Bridge Road, London, SE1 7EH
Reference interval	Provided by referral laboratory
Limitations	N/A

Test	2-Stage FVIII Assay
Common Abbreviations	N/A
Profile	2-Stage FVIII Assay
Clinical indication	Approximately one third of patients with the mild form of haemophilia A will demonstrate significantly different FVIII:C when measured by one-stage FVIII compared to the two-stage or chromogenic FVIII. This is known as assay discrepancy. Half of patients with assay discrepancy will have a two-fold or lower one-stage FVIII than two-stage or chromogenic FVIII and approximately half will have a two-fold or lower two-stage or chromogenic FVIII than one-stage FVIII. There is a genetic link to both versions of FVIII assay discrepancy. The two-stage assay is only performed in the diagnosis of mild haemophilia A to determine the presence of FVIII assay discrepancy.
Specimen type	Blood
Sample type	Blue top citrate
Minimum volume	1x blue top citrate sample
Special precautions	Request must be authorised by a Haematology Consultant/Registrar
Stability	Provided by referral laboratory
Turn-around time	14 days
Laboratory	Coagulation Laboratory (H floor), Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF
Reference interval	Provided by referral laboratory
Limitations	N/A