

Blood sciences laboratory add-on test information for users

The laboratory will add further tests to existing samples in certain circumstances. The following information sheet highlights which tests are added on by the laboratory and the rationale for why and when this is done.

Clinical staff are able to contact the laboratory themselves to request additional tests on existing samples. Details of how to do this are given on the Laboratory Medicine Website.

Biochemistry Add-On Tests

<u>Add on Test Name</u>	<u>Why/When Added?</u>	<u>Dept performing Add-on Test</u>
Magnesium	Added to unexplained low potassium (usually <2.8 mmol/L) or adjusted calcium (usually <1.9 mmol/L).	Biochemistry
Thyroid Peroxidase (TPO) antibodies	Added to persistently raised TSH <10) to guide frequency of repeat testing.	Biochemistry
Free T4	Added to first time raised TSH >10 or <0.01 or second time TSH <0.1	Biochemistry
Free T3	Added to unexplained TSH <0.01 or second time TSH <0.1	Biochemistry
Liver function tests (LFT)	Added to cholesterol >7.5 if not checked previously	Biochemistry
TSH	Added to cholesterol >7.5 if not checked previously Biochemistry	Biochemistry
Bicarbonate	Added to patient with AKI >2 or high potassium >6 automatically	Biochemistry
Calcium	Added to patients with AKI >2 automatically	Biochemistry
Electrophoresis	Added to unexplained high globulin (>55g/L) with anaemia and other result/clinical details suggesting myeloma after phoning GP surgery	Biochemistry
Iron	Significantly raised new high Ferritin with normal CRP/renal function and no indication that patient is on iron.	Biochemistry
Gamma-Glutamyl transferase (GGT)	May be added to unexplained significantly raised (>300) ALP	Biochemistry
Triglyceride	Added to grossly lipaemic samples	Biochemistry

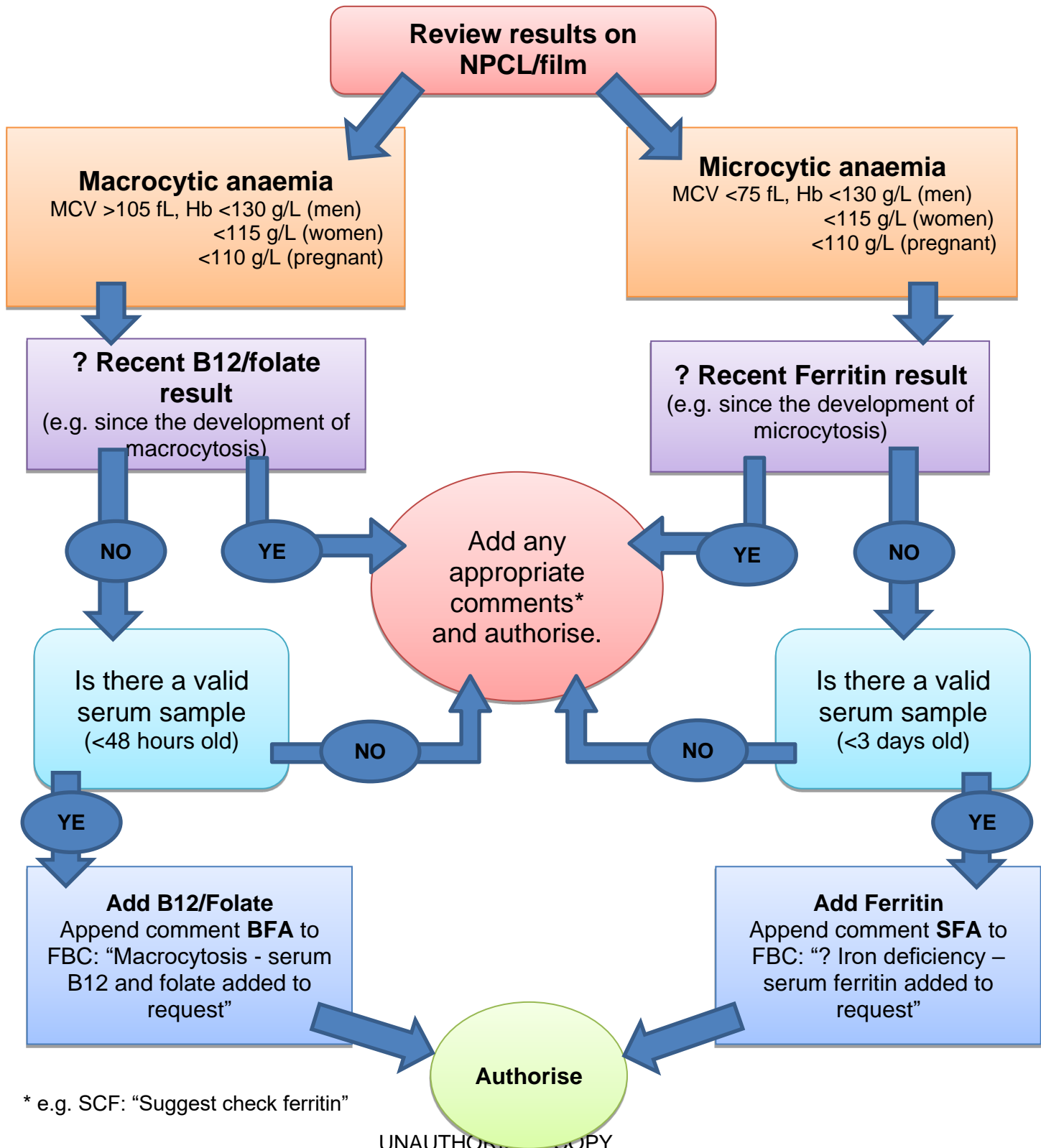


Cortisol/FSH/LH/Prolactin	Added to low/low normal TSH plus low FT4 to investigate possible pituitary disease	Biochemistry
LH, Sex hormone-Binding globulin (SHBG) and Prolactin	Added to new low testosterone results or borderline (>5) when confirmed on 9am sample	Biochemistry
Vitamin D	Added to normal calcium + raised PTH when eGFR >60 to detect deficiency as cause of the raised PTH (secondary hyperparathyroidism)	Biochemistry
Lactate dehydrogenase (LDH) and Calcium	Added to amylase results >300 automatically	Biochemistry
Calculated Free Testosterone	Added to testosterone/SHBG requests where it may change interpretation of the total testosterone result.	Biochemistry

Haematology/Transfusion Add-On Tests

<u>Add on Test Name</u>	<u>Why/When Added?</u>	<u>Dept performing Add-on Test</u>
Ferritin (see Flow Chart below)	Added to low MCV / MCH if serum sample available and not tested recently / previously	Biochemistry
B12/Folate (see Flow Chart below)	Macrocytic anaemia if serum sample available and not tested recently / previously	Biochemistry
Blood Film	Added to abnormal FBC results / failed autovalidation / private requests	Haematology
Malaria Parasites	Recent foreign travel to malaria-endemic area with relevant symptoms e.g. fever (if stated)	Haematology
Reticulocytes	Added if the film suggests haemolysis	Haematology
Direct Coombs Test	Added if the Film suggests haemolysis	Blood Transfusion
Hb Electrophoresis (acid and/or alkali)	Added if an abnormal band detected by HPLC	Haematology
IM Screen	Added if the Film suggestive of viral infection / IM or exclude IM if atypical cells present	Haematology
G6PD deficiency screen	Added to Positive malaria screens	Haematology
NRBC	Added if ?NRBC flag or NRBC's present on blood film, previous history, paediatric requests	Haematology

Protocol for Investigation of Anaemia by addition of tests within the laboratory.



Coagulation Add-On Tests

<u>Add on Test Name</u>	<u>Why/When Added?</u>	<u>Dept performing Add-on Test</u>
Mixing studies / secondary APTT testing	Prolonged PT and/or APTT	Coagulation
Lupus screen	Prolonged APTT (not corrected by mixing etc.)	Coagulation
Factor Assays	Prolonged PT and/or APTT where mixing studies etc. suggest factor deficiency	Coagulation
Factor VIII Inhibitor	Suspected acquired haemophilia A	Coagulation
vWD screen	Cases with prolonged APTT and/or bleeding or bruising symptoms	Coagulation
Thrombophilia screen	Where an incomplete full thrombophilia screen has been requested (such as only AT, PC and PS requested - add on other assays included in standard thrombophilia screen unless sent for confirmation of previous result)	Coagulation

Immunology Add-On Tests

<u>Add on Test Name</u>	<u>Why/When Added?</u>	<u>Dept performing Add-on Test</u>
Anti-IgG- Cardiolipin and Beta-2 Glycoprotein Ab (CAR)	Added in conjunction with Lupus screen.	Immunology
ANA Screen (Multiplex) (ANAH)	Added if a patient has a positive Hep2 ANA screen by indirect immunofluorescence (performed as part of the liver autoantibody screen); Added if clinical details are poly/dermatomyositis/Jo-1	Immunology
ENA Immunoblot. (ENAB)	Added if a patient has a positive anti-Sm, Jo-1, Scl-70 or RNP antibody result on the ANA multiplex screen. This is used as a confirmatory test.	Immunology
Crithidia dsDNA Ab by indirect immunofluorescence (CRITH)	Added if a patient has a positive dsDNA antibody on ANA screen	Immunology
Liver autoantibody screen (LABS)	Added if a patient has a suspected mitochondrial antibody or smooth muscle antibody when screening ANA/ or general cytoplasmic speckle	Immunology
Liver Antibody profile by Immunoblot	Added if a patient has a positive liver autoantibody screen or if nuclear dots pattern observed on Hep2 ANA. Added to children less than 16y of age with negative liver antibody screen but abnormal LFTs.	Immunology
Intrinsic factor antibody	Requested on all patients with a positive anti-GPC antibody detected on the liver autoantibody screen and added when B12 <150	Immunology
ANCA by Indirect immunofluorescence	Added to positive anti-MPO or PR3 antibody results	Immunology

IGS	May be requested if very low IgA detected on coeliac screen and/or clinical details suggest immunodeficiency	Immunology
IgA	Requested on all patients with a Coeliac antibody screen	Immunology
IgG tTG antibody	Added to all children under 4yrs of age or if IgA result is <0.3g/L in patients with a Coeliac screen	Immunology
Endomysial antibody (EMA)	Added if a patient has a positive tTG antibody (IgA/IgG)	Immunology