

Immunology & Immunogenetics

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Dear Immunology Laboratory Service Users,

Changes to liver autoantibody testing pathway and site of testing in Bath (RUH):

From the date specified below the liver autoantibody testing service will move from the RUH Immunology department in Bath to the Immunology & Immunogenetics laboratory at North Bristol Trust (NBT). As part of this move the testing pathway for the investigation of suspected autoimmune liver diseases is changing:

We will be switching to a new supplier of immunofluorescence substrates (slides): Liver & gastric parietal cell (GPC) autoantibodies will be tested by EUROImmun HEP-2 cells plus rat liver kidney stomach (LKS) tissue using digital indirect immunofluorescence (IIF by EUROPattern Live digital microscopy). Liver substrate indirect immunofluorescence will remain the frontline test for liver and GPC antibody investigations for primary and secondary care in line with the current guidelines¹⁻³. The test will be requestable on the ICE and Millennium order-comms systems as “**Autoimmune liver disease screen**”.

The screening concentration (serum dilution) will remain the same for adults at 1:80 in accordance with the manufacturer’s recommendation. Paediatric patients will also receive an additional LKS IIF screening dilution at 1:40.

Multiplex semi-quantitative immunoassay testing for liver autoantibodies is also changing; from the date specified the repertoire of liver autoantibodies tested is increasing. Immunoblotting will be provided using the *EUROImmun EUROLINE Profile Autoimmune Liver Diseases* and will include the following nine autoantibodies:

- **AMA-M2** – mitochondrial antibody (AMA): E2 subunit of the pyruvate dehydrogenase complex (PDC-E2)
- **M2-3E(BPO)** - three major subunits of the 2-oxoacid dehydrogenase complex (PDC-E2, BCOADC-E2, OGDC-E2)
- **Sp100** - speckled 100 kDa nuclear protein
- **PML** - promyelocytic leukaemia protein
- **Gp210** - glycoprotein 210 kDa
- **LKM-1** – liver kidney microsome 1: cytochrome P450 2D6 (CYP2D6)
- **LC-1** – liver cytosol 1: formiminotransferase cyclodeaminase (FTCD)
- **SLA** - soluble liver antigen: SepSecS (O-phosphoseryl-tRNA:selenocysteinyl-tRNA synthase)
- **Ro52** - TRIM21 (Tripartite motif-containing protein 21)



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Maria Kane, Joint Chief Executive.

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Liver antibody immunoblotting will remain a reflex test added by the laboratory where appropriate for primary care and will become a requestable investigation for secondary care liver specialists in Bath where it will be available on Millennium as “**Liver immunoblot**”. Repeat testing of liver antibody immunoblots will be limited to every six months.

When? Changes to the liver autoantibody testing pathway will go live on **Monday 8th June 2026**.

Please feel free to contact us if you wish to discuss this matter further.

Kind regards



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1. Detection of antinuclear antibodies: recommendations from EFLM, EASI and ICAP. Bonroy et al. Clin Chem Lab Med 2023; 61(7): 1167–1198.
2. EASL Clinical Practice Guidelines: The diagnosis and management of patients with primary biliary cholangitis. Journal of Hepatology, Vol. 67, Issue 1, p145–172. 2018.
3. EASL Clinical Practice Guidelines: Autoimmune hepatitis. Journal of Hepatology, Vol. 63, Issue 4, p971-1004. 2015.



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