

NATIONAL STANDARD METHOD

ACUTE INFECTIVE HEPATITIS

SYNDROME 1

Issued by Standards Unit, Department for Evaluations, Standards and Training
Centre for Infections



UK Clinical Virology Network

ACUTE INFECTIVE HEPATITIS

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STATUS OF NATIONAL STANDARD METHODS

National Standard Methods, which include standard operating procedures (SOPs), algorithms and guidance notes, promote high quality practices and help to assure the comparability of diagnostic information obtained in different laboratories. This in turn facilitates standardisation of surveillance underpinned by research, development and audit and promotes public health and patient confidence in their healthcare services. The methods are well referenced and represent a good minimum standard for clinical and public health microbiology. However, in using National Standard Methods, laboratories should take account of local requirements and may need to undertake additional investigations. The methods also provide a reference point for method development.

National Standard Methods are developed, reviewed and updated through an open and wide consultation process where the views of all participants are considered and the resulting documents reflect the majority agreement of contributors.

Representatives of several professional organisations, including those whose logos appear on the front cover, are members of the working groups which develop National Standard Methods. Inclusion of an organisation's logo on the front cover implies support for the objectives and process of preparing standard methods. The representatives participate in the development of the National Standard Methods but their views are not necessarily those of the entire organisation of which they are a member. The current list of participating organisations can be obtained by emailing standards@hpa.org.uk.

The performance of standard methods depends on the quality of reagents, equipment, commercial and in-house test procedures. Laboratories should ensure that these have been validated and shown to be fit for purpose. Internal and external quality assurance procedures should also be in place.

Whereas every care has been taken in the preparation of this publication, the Health Protection Agency or any supporting organisation cannot be responsible for the accuracy of any statement or representation made or the consequences arising from the use of or alteration to any information contained in it. These procedures are intended solely as a general resource for practising professionals in the field, operating in the UK, and specialist advice should be obtained where necessary. If you make any changes to this publication, it must be made clear where changes have been made to the original document. The Health Protection Agency (HPA) should at all times be acknowledged.

The HPA is an independent organisation dedicated to protecting people's health. It brings together the expertise formerly in a number of official organisations. More information about the HPA can be found at www.hpa.org.uk.

The HPA aims to be a fully Caldicott compliant organisation. It seeks to take every possible precaution to prevent unauthorised disclosure of patient details and to ensure that patient-related records are kept under secure conditions¹.

More details can be found on the website at www.evaluations-standards.org.uk. Contributions to the development of the documents can be made by contacting standards@hpa.org.uk.

The reader is informed that all taxonomy in this document was correct at time of issue.

Please note the references are now formatted using Reference Manager software. If you alter or delete text without Reference Manager installed on your computer, the references will not be updated automatically.

Suggested citation for this document:

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¹ Department of Health NHS Executive: *The Caldicott Committee. Report on the review of patient-identifiable information*. London. December 1997

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AMENDMENT PROCEDURE

Controlled document reference	SYNDROME
Controlled document title	Acute Infective Hepatitis

Each National Standard Method has an individual record of amendments. The current amendments are listed on this page. The amendment history is available from standards@hpa.org.uk.

On issue of revised or new pages each controlled document should be updated by the copyholder in the laboratory.

Amendment Number/ Date	Issue no. Discarded	Insert Issue no.	Page	Section(s) involved	Amendment

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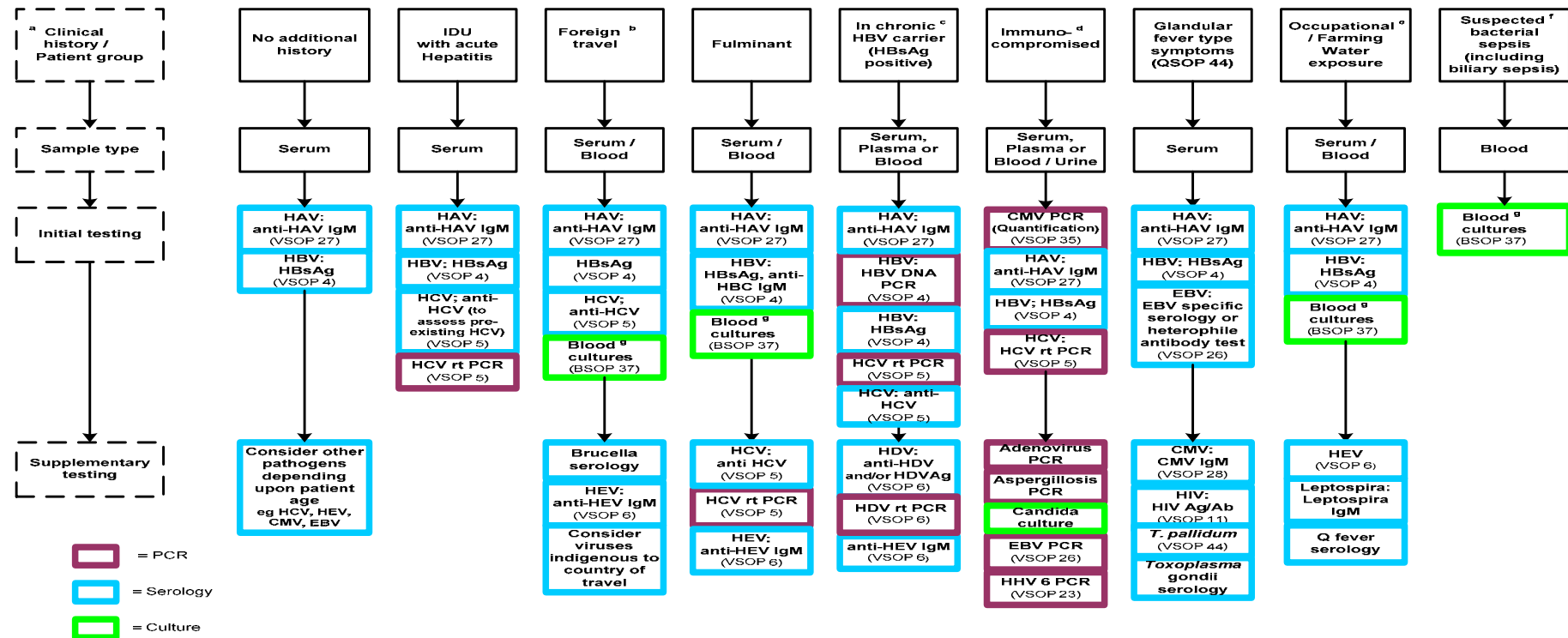
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ACUTE INFECTIVE HEPATITIS (EXCEPT ASYMPTOMATIC AND NEONATES)

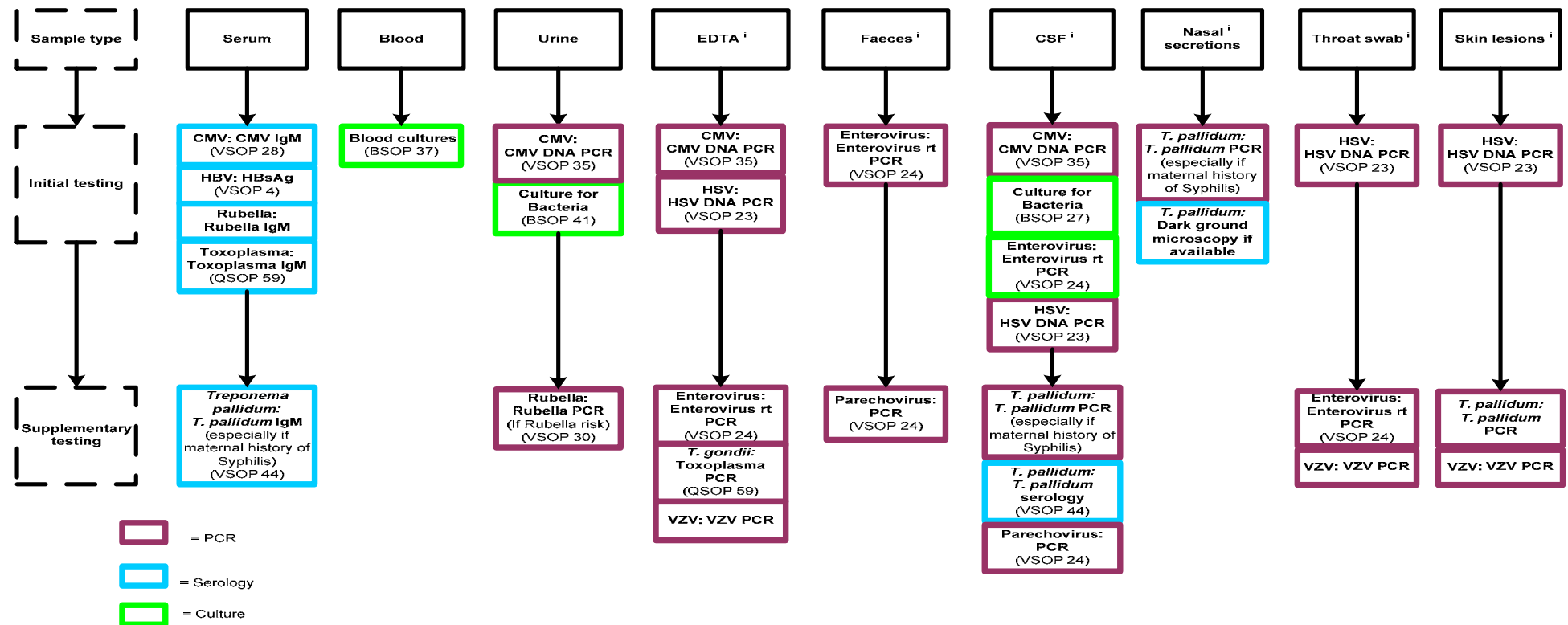
Clinical features of hepatitis include malaise, fever, jaundice and serum chemical tests revealing evidence of abnormal liver function. An inflammation of the liver can be caused by a number of aetiological agents, including viruses, bacteria, fungi, parasites, drugs and chemicals. Testing is recommended in all patients in whom abnormal liver function tests (LFTs) have been recorded. Abnormal LFTs can be defined as test results that indicate an increase of 2x above the upper limit of the locally defined “normal” range of values for liver function tests (LFTs). The most common infectious hepatitis is of viral aetiology. All types of hepatitis are characterized by distortion of the normal hepatic lobular architecture due to varying degrees of necrosis of individual liver cells or groups of liver cells, acute and chronic inflammation, and Kupffer cell enlargement and proliferation. There is usually some degree of disruption of normal bile flow, which contributes to jaundice. The severity of the disease is highly variable and often unpredictable and it should be noted that acute hepatitis can vary from being asymptomatic to fulminant.



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HEPATITIS IN NEONATES

Neonatal hepatitis is the term given to non-specific hepatic inflammation which may develop due to many different causes. The pathognomonic signs for this syndrome include conjugated hyperbilirubinaemia, dark urine and pale stools. These signs when presented should be investigated immediately by the liver unit even if awaiting the results of first line investigations. In some cases direct referral to a supra regional liver unit is appropriate to exclude the diagnosis of biliary atresia as quickly as possible. Early discussion with the supra regional liver unit is necessary for infants presenting with neonatal liver failure or possible obstruction. Discussion should not be delayed whilst waiting for results of first line investigations. In some cases paediatric gastroenterologists will perform some of the second line investigations depending upon radiological and histopathological expertise. There are also cases when the testing of maternal samples can act as surrogate testing for neonates or/and provide additional information.



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- a In all cases testing for hepatitis C should be considered (HCV rtPCR) although it may not be the primary cause of acute hepatitis
- b Information received must include country, length of stay, date of return, when symptoms manifested and immunisation details
- c When presented with a patient who is a chronic HBV carrier tests for all viruses should be carried out including the HIV antibody
- d Must consider underlying conditions, duration and severity
- e If pig farming then it should be noted that these are recognised reservoirs of Hepatitis E, however, farming is not considered to be of risk
- f Bacterial sepsis may present as positive cholestatic jaundice, increase in alkaline phosphatase, bilirubin and aminotransferases
- g With blood cultures consider *Brucella* and other organisms
- h For known exposure to Hepatitis C then PCR should be carried out at 6, 12 and 24 weeks after exposure
- i These samples should be taken based upon presenting symptoms and results from previous serology tests

RELEVANT NATIONAL STANDARD METHODS

[VSOP 4 – Hepatitis B diagnostic serology in the immunocompetent \(including Hepatitis B in pregnancy\)](#)

[VSOP 5 – Investigation of Hepatitis C Infection](#)

[VSOP 6 – Hepatitis, jaundice and abnormal LFTs](#)

[VSOP 11 – Anti-HIV Screening](#)

[VSOP 23 – Investigation of human herpes viruses \(excluding herpes genitalis\)](#)

[VSOP 24 – Isolation of enteroviruses and parechoviruses](#)

[VSOP 26 – Epstein-Barr Virus serology](#)

[VSOP 27 – Hepatitis A virus acute infection serology](#)

[VSOP 28 – Cytomegalovirus serology](#)

[VSOP 30 – Investigation and management of pregnant women exposed to rash illness](#)

[VSOP 35 – Investigation of Cytomegalovirus infection by Roche Lightcycler PCR](#)

[VSOP 44 – Serological Diagnosis of Syphilis](#)

[BSOP 37 – Investigation of blood cultures \(for organisms other than Mycobacterium species\)](#)

[QSOP 59 – Investigation of Toxoplasma Infection in pregnancy](#)

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ACKNOWLEDGEMENTS AND CONTACTS

This National Standard Method was initiated and developed by the National Standard Methods Joint Working Group (http://www.hpa-standardmethods.org.uk/wg_nsmjoint.asp). The contributions of many individuals in clinical virology and bacteriology laboratories and specialist organisations who have provided information and comment during the development of this document, and final editing by the Medical Editors are acknowledged.

The National Standard Methods are issued by Standards Unit, Department for Evaluations, Standards and Training, Centre for Infections, Health Protection Agency, London.

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