

# GLOSSARY AND ABBREVIATIONS

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## **Viral hepatitis**

**HAV:** hepatitis A virus

**HBV:** hepatitis B virus

**HCV:** hepatitis C virus

**HDV:** hepatitis D (delta) virus

**HEV:** hepatitis E virus

## **Ab: Antibody**

An immunoglobulin essential to the immune system, produced in response to bacteria or viruses. In the case of hepatitis B, antibodies are produced in response to the virus

## **AFP: Alphafetoprotein**

Elevated values may indicate active cirrhosis or hepatocellular carcinoma

## **Ag: Antigen**

A substance (usually a protein) that causes the formation of an antibody and reacts specifically with that antibody

## **AIDS: Acquired Immune Deficiency Syndrome**

## **ALP: Alkaline phosphatase**

## **ALT: Alanine aminotransferase**

An enzyme which may indicate liver damage when found in high levels in the blood. Also known as serum glutamic pyruvic transaminase (SGPT)

## **Antiviral resistance:**

The selection of antiviral-resistant mutations usually in association with the use of antiviral drugs. The rate at which resistant mutants are selected in HBV depends on various factors including: pretreatment serum HBV DNA levels; rapidity of viral suppression; duration of treatment; prior exposure to NA therapy. The first indication of resistance is virological breakthrough (10-fold [1 log] increase in serum HBV DNA above nadir after achieving virological response during treatment), followed by biochemical breakthrough (increase in ALT above ULN after achieving normalisation during treatment)

## **AST: Aspartate aminotransferase**

An enzyme normally present in liver and heart cells, which may indicate liver damage when found in high levels in the blood. Also known as serum glutamic oxaloacetic transaminase (SGOT)

## **B-cell:**

A type of immune cell

## **Biochemical markers of liver disease**

Include ALT, AST, GGT and ALP. Elevated levels of these markers may indicate liver damage (note that ALT and AST can also rise in other medical conditions). The upper limit of normal levels varies depending on the laboratory used

## **CALD:**

Culturally and Linguistically Diverse communities

**Carrier:**

A person with chronic hepatitis B infection. Preferred terminology is 'a person with hepatitis B'

**CD4 T-cell:**

A helper T-cell which carries the CD4 surface antigen

**CD8 T-cell:**

A killer or cytotoxic T-cell which carries the CD8 surface antigen

**Chronic hepatitis B:**

Chronic necroinflammatory disease of the liver caused by persistent infection with HBV, usually defined as HBsAg positivity for more than six months

**» HBeAg-negative chronic hepatitis B:**

HBsAg negative, anti-HBe positive

**» HBeAg-positive chronic hepatitis B:**

HBsAg positive, anti-HBe negative

**Cirrhosis:**

End stage liver disease characterised by fibrosis and nodular regeneration within the liver, may lead to complications, such as liver failure or liver cancer

**CMV: Cytomegalovirus****Co-infection:**

Infection with two or more infectious agents at the one time (e.g. HBV/HCV co-infection; HBV/HIV; HBV/HDV)

**Contact tracing:**

The following up, notification and diagnosis of household contacts and sexual partners of a person with a notifiable infectious disease such as hepatitis B. Also called partner notification

**CT: Computed tomography**

An imaging method that uses x-rays to create cross-sectional pictures of the body

**Diagnostic markers of HBV infection:**

The diagnosis of chronic hepatitis B is based on markers of HBV infection (serological and virological markers) and on markers of liver disease (biochemical and histological markers)

**DNA: Deoxyribonucleic acid****» b-DNA:**

Branched chain DNA

**» (ccc) DNA:**

Covalently closed circular DNA

**FBC: Full blood count****FCSW: Female commercial sex workers****Fibrosis, stage of disease:**

Methods to score the level of scar formation in the liver. Scoring systems include: histological activity inflammation (HAI); Ishak modified system, METAVIR and Scheuer classifications

**Genotype:**

The specific genetic structure of the virus. Currently, there are eight recognised HBV genotypes (A–H), the prevalence of which varies geographically. The most common HBV genotypes are A–D. HBV genotype may be related to clinical outcome by predicting disease progression and treatment response to pegylated interferon

**GGT: Gamma-glutamyl transferase**

An enzyme found mainly in the liver. When the liver is injured or obstructed, the GGT level rises

**GP:** General practitioner

**HAART:** Highly active antiretroviral therapy

**HBcAg:** Hepatitis B core antigen

» **Anti-HBc:**

Antibody to hepatitis B core

» **antigen (HBcAb)**

Anti-HBc IgM indicates recent exposure to HBV and anti-HBc IgG indicates past exposure to HBV

**HBeAg:** Hepatitis B e antigen

**Anti-HBe:** Antibody to hepatitis B e antigen (HBeAb)

**HBIG:** Hepatitis B immunoglobulin

**HBsAg:** Hepatitis B surface antigen

**Anti-HBs:** Antibody to hepatitis B surface antigen (HBsAb)

**HCC:** Hepatocellular carcinoma

**Histological markers of liver disease:**

An assessment of fibrosis (stage of disease) and necroinflammation (grade of disease) from liver biopsy. Histological evaluation of liver biopsy is a more accurate indicator of liver disease than ALT levels. Tests for the non-invasive assessment of hepatic fibrosis are becoming available

**HIV:** Human Immunodeficiency Virus

**IDU:** Injecting drug use

**IFN:** Interferon

**Ig:** Immunoglobulin

**IgM:** Immunoglobulin M

**IgG:** Immunoglobulin G

**IM:** Intramuscular

**INR:** International normalised ratio (a test of blood clotting)

Can be elevated in liver failure or as a result of taking anticoagulant medications

**IV:** Intravenous

**IU:** International Units (measurement of HBV DNA replication).

The previous unit of measurement (copies/mL) has been standardised internationally to IU/mL. The conversion factor is 5–6 genome copies/mL = 1 IU/mL

**LFT:** Liver function test

**µL:** Microlitre

**mL:** Millilitre

**mmol:** Millimole

**MRI:** Magnetic resonance imaging

**MSM:** Men who have sex with men

**NA:** Nucleoside and nucleotide analogues

**NAAT:** Nucleic acid amplification techniques

**Notification:**

Medical practitioners and laboratories have a legal duty to notify their state health department of diseases listed as notifiable. Notifiable diseases can differ from state to state. Acute viral hepatitis B is notifiable by all doctors in all Australian states and territories. HBsAg-positive results must be notified by laboratories in NSW. Notification does not legally breach a patient's right to privacy

**Occupational exposure:**

An injury or incident occurring in the workplace, where blood or body substances come into contact with non-intact skin or membranes, with the potential for the transmission of infection

**Partner notification:** See contact tracing

**Patient confidentiality:**

The legal duty of confidentiality obliges health care practitioners to protect their patients against inappropriate disclosure of personal (health) information

**PCR: Polymerase chain reaction**

A laboratory technique that amplifies the genetic material of a virus to a level that can be detected

**PEG-IFN: Pegylated interferon****PEP: Post-exposure prophylaxis****Percutaneous ablation:**

Method of destroying tumour cells using chemicals, such as ethanol or acetic acid

**pg/mL: Picogram per millilitre****RCT: Randomised controlled trial****RNA: ribonucleic acid****(pg) RNA: Pregenomic RNA****rt: Reverse transcriptase****Screening:**

Testing for the presence of an asymptomatic condition in an apparently healthy individual

**Section 100:**

A section of the Pharmaceutical Benefits Scheme (PBS), which provides access to highly specialised drugs

**Seroconversion:**

Process whereby a serological test for a given microbiological or virological agent changes from non-reactive to reactive, coinciding with recent infection

**» HBeAg seroconversion:**

Loss of HBeAg and detection of anti-HBe in a person who was previously HBeAg positive and anti-HBe negative

**Serological markers of hepatitis B infection:**

HBsAg persistence for more than 6 months indicates chronic HBV; anti-HBs indicates recovery, or immunity to HBV after successful vaccination; HBeAg indicates active replication of HBV; anti-HBe generally indicates HBeAg seroconversion, the goal of HBV therapy for HBeAg-positive HBV; anti-HBc IgM indicates recent exposure to HBV and anti-HBc IgG indicates past exposure to HBV

**Serology:**

(Usually) Diagnostic identification of antibodies, sometimes antigens, in serum

**Standard infection control precautions:**

Work practices required for the basic level of infection control; are recommended for the treatment and care of all patients. Standard precautions are designed to reduce the risk of transmission of micro-organisms from both recognised and unrecognised sources of infection to a susceptible host

**STI: Sexually transmitted (or transmissible) infection**

An infection that can be transmitted from one person to another by sexual activity (oral, anal and vaginal intercourse)

**STD: Sexually transmitted disease**

The more accurate term, sexually transmissible infection (STI) is now in current use

**SVR: Sustained virological response**

The elimination of the hepatitis C virus following treatment

**TAE: Transcatheter arterial embolisation**

**TACE: Transarterial chemoembolisation**

**T-cell: White blood cell or lymphocyte**

**TMA: Transcription mediated assay, a NAAT**

**Transmission:**

» **Horizontal:**

Transmission of an infection from person to person in the community

» **Vertical:**

Transmission of an infection from mother to child, during pregnancy, delivery or breastfeeding

**Vaccination:**

Australian vaccination policy to control hepatitis B began in 1988. In 1997, a universal hepatitis B vaccination program for adolescents was implemented, followed in 2000 by a universal program for infants

**Viraemia:**

Presence of a virus in the bloodstream

**Viral load:**

The amount of virus circulating in the blood, usually measured by a quantitative PCR test

**Virological markers of hepatitis B infection:**

The amount of HBV DNA in serum is a measure of the level of viral replication and a strong predictor of the development of cirrhosis and hepatocellular carcinoma. HBV DNA testing is now approved in Australia to evaluate a patient for treatment and to monitor treatment efficacy. The threshold HBV DNA level associated with progressive liver disease is unknown; 20,000 IU/mL has been arbitrarily selected to indicate less hepatic damage

**WHO: World Health Organization**