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## The Interpretation of Diagnostic Blood tests for Hepatitis D Virus (HDV)

**Note: HDV is always associated with Hepatitis B infection**

**HDV Ab** - Hepatitis D antibody – anti-HDV.

- **DETECTED** in both acute cases and in those previously exposed.
- Duration of detection may vary depending on assay sensitivity and specificity and duration of continued exposure to the virus.

**HDV Ab IgM** - IgM anti-HDV

- Usually **DETECTABLE** at the onset of symptoms and/or abnormal liver function. This may be 2 to 9 weeks after exposure.
- May be **UNDETECTABLE** in acute cases and false positives can occur.
- Duration of **DETECTION** varies between patients and on assay used.
- Strongly positive results are rarely **DETECTED** 3 months after the onset of symptoms.

**HDV Ag**

- May be detected within a few days after infection.
- Test not widely available.

**HDV RNA** - Hepatitis D Virus RNA.

- Presence in blood indicates infectivity and active viral replication.
- May be **DETECTED** in blood immediately prior to the onset of symptoms.
- May become **UNDETECTABLE** within a few days to weeks after the onset of symptoms.
- HDV RNA testing may help to elucidate acute viral hepatitis cases of unknown etiology.
- Quantitative testing is used to monitor responses to anti-viral therapy.

**HDV genotype and subtypes**

- At least eight phylogenetically distinct genotypes have been identified with different geographical distributions. However, the genetic variability of HDV may be much more complex than previously thought.
- Test not widely available.

**Note:**

- Delta virus is incapable of replicating in the absence of Hepatitis B Virus. It needs the envelope proteins of HBV to facilitate assembly of the genome and to allow attachment and entry into new host cells
- Delta hepatitis represents the most severe form of viral hepatitis
- HDV is usually associated with HBeAg negative HBV serology but 10-30% of cases may be HBeAg positive.
- Most patients with chronic HDV show an inhibition of HBV replication
- HDV may occur as co infection with HBV or as super infection of an HBV carrier. In most cases super infection takes a chronic course.