## **INTERPRETATION OF HEPATITIS ANTIGEN AND ANTIBODY ASSAY RESULTS**

|    | HBsAg | HBeAg | Anti<br>HBc | Anti<br>HBe | Anti<br>HBs | Anti<br>HAV<br>(IgG) | Anti<br>HAV<br>(IgM) | INTERPRETATION  |
|----|-------|-------|-------------|-------------|-------------|----------------------|----------------------|---|
| 1  | +     | -     | -           | -           | -           | -                    | -                    | Late Incubation period of acute Hepatitis B infection.  |
| 2  | +     | +     | -           | -           | -           | -                    | -                    | Early acute Hepatitis B, likelihood of infectivity high, Dane particles (HBV) and DNA polymerase present.   |
| 3  | +     | +     | +           | -           | -           | -                    | -                    | Acute or chronic Hepatitis B, active viral replication ongoing, likelihood of infectivity high.   |
| 4  | +     | -     | +           | -           | -           | -                    | -                    | Acute or chronic Hepatitis B infection.   |
| 5  | +     | +     | +           | +           | 1           | ,                    | -                    | Acute or chronic Hepatitis B. This case represents a patient undergoing seroconversion from HBeAG to Anti-HBe. Likelihood of infectivity moderate.  |
| 6  | +     | -     | +           | +           | -           | -                    | -                    | Acute or chronic Hepatitis B, likelihood of infectivity low. This pattern occurs frequently in asymptomatic chronic carriers and during acute infections.   |
| 7  | -     | -     | +           |             |             | 1                    | -                    | "GAP" period between disappearance of Hepatitis B surface Antigen and Hepatitis B e Antigen and appearance of anti-HBe and anti-HBs; potentially infectious.  |
| 8  | -     | -     | +           | +           | -           | -                    | -                    | May represent either a current or a recent past infection with Hepatits B Virus; i.e., current infection with HBsAg levels too low to be detected or a recent past infection prior to the appearance of anti-HBs. |
| 9  | -     | -     | +           | +           | +           | -                    | -                    | Recovery phase of Hepatitis B infection, indicative of past infection and persisting immunity.  |
| 10 | -     | -     | +           | -           | +           | -                    | -                    | Same as case -9, when anti-HBe is short lived.  |
| 11 | -     | -     | -           | -           | +           | -                    | -                    | Immunization without infection or a short-lived anti HBc, or a cross-reacting antibody (false-positive) not related to Hepatitis B Virus infection.   |

## ADDENDUM XIII (Continued)

## **INTERPRETATION OF HEPATITIS ANTIGEN AND ANTIBODY ASSAY RESULTS**

|    | HBsAg | HBeAg | Anti<br>HBc | Anti<br>HBe | Anti<br>HBs | Anti<br>HAV<br>(IgG) | Anti<br>HAV<br>(IgM) | INTERPRETATION  |
|----|-------|-------|-------------|-------------|-------------|----------------------|----------------------|---|
| 12 | -     | +     | ı           | 1           | ,           | 1                    | -                    | This could occur in a patient with undetectable HBsAg early in the course of infection before anti-HBc develops. Alternatively, this may be a false positive.                         |
| 13 | -     | -     |             | +           | ,           | 1                    |                      | Cross-reacting antibody (false-positive) anti-HBe has not been found in the absence of other markers in serial studies.   |
| 14 |       | +     | +           | -           | +           | -                    | -                    | This could represent a patient with circulating immune complexes of HBsAg and anti-HBs in which there is antibody excess.   |
| 15 | +     | -     | +           | +           | +           | -                    |                      | Represents a patient with circulating immune complexes of HBsAg and anti-HBsAg and in which neither is in large excess. Alternately the HBsAg and anti-HBs are of different subtypes. |
| 16 | -     | -     |             | 1           |             | +                    | +                    | Recent acute Hepatitis A infection.   |
| 17 | _     | -     |             | -           | ,           | +                    | -                    | Indicative of past HAV infection and immunity.  |
| 18 | +     | -     | +           | -           | -           | +                    | +                    | Recent probable Hepatitis A infection and probable chronic Hepatitis B infection, uncommon profile.   |

NOTE - FOR ANTI HAV (IgM) RESULTS OF GRAY ZONE, ANTIBODIES TO HAV MAY OR MAY NOT BE PRESENT. DUE TO THE BORDERLINE NATURE OF THIS RESULT, IT IS RECOMMENDED THAT THE PATIENT BE CLOSELY MONITORED OVER TIME (APPROXIMATELY 1 WEEK INTERVALS).