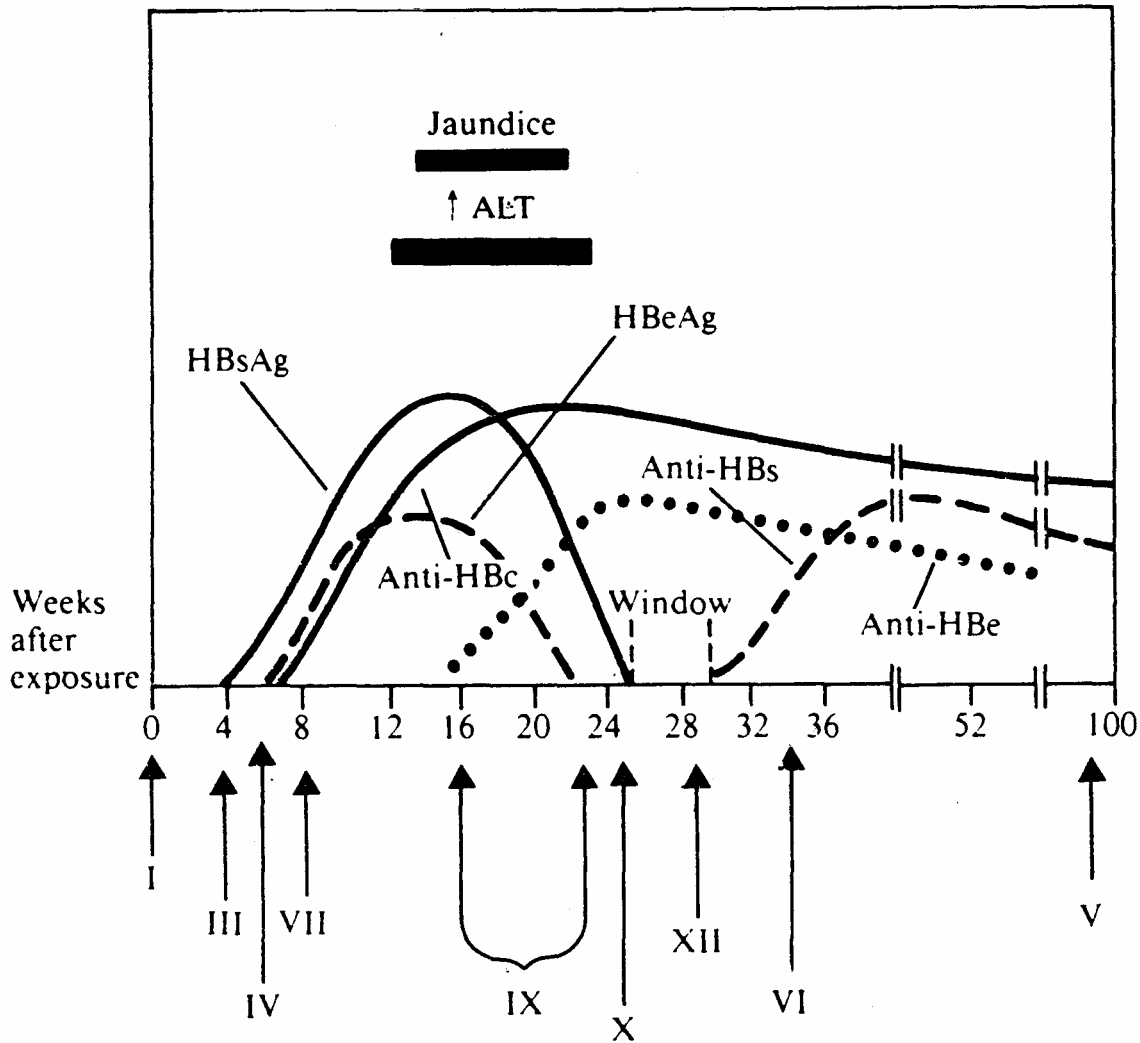


Interpreting Hepatitis B Markers

Pattern Number	Hepatitis B Markers					Interpretations
	HBsAg	HBeAg	Anti HBc	Anti HBe	Anti HBs	
I						Indicates susceptibility to hepatitis B infection. Patient has never had hepatitis B infection or is in the early incubation period of infection.
II					+	May indicate past resolved infection with selective loss of anti-HBc and anti-HBe or immunisation without infection – either passive temporary immunisation with HBIG or active long-term immunisation with hepatitis B vaccine. Noninfectious.
III	+					Late incubation or very early stage of acute infection. Infectious
IV	+	+				Early state of acute infection. Highly infectious
V			+		+	Like pattern VI, this indicates past resolved HBV infection but anti-HBe not persistent or detectable. Suggests immunity to subsequent infections. Noninfectious
VI			±	+	+	Indicates past resolved HBV infection; suggests immunity to subsequent infections. Noninfectious
VII	+	+	+			Acute or chronic infection. Highly infectious
VIII	+		+			Acute or chronic infection: stage after HBeAg has disappeared but anti-HBe not yet detectable. Follow-up serology indicated. Infectious
IX	+	+	+	+		Mid-to-late stage of acute infection or chronic carrier state. Period of seroconversion from HBcAg to anti-HBe. Follow-up serology indicated. Infectious
X	+		+	+		Mid-to-late stage of acute infection or chronic carrier state. Follow-up serology indicated. Potentially infectious
XI			+			This most often represents remote resolved infection with selective loss of anti-HBs. This may also represent the 'window' phase of an acute infection; chronic infection with HBsAg below the limits of detection; or an erroneous test result. Remotely potentially infectious
XII			+	+		This may represent resolving infection with anti-HBs not yet detectable; infection in the distant past with non-persistent anti-HBs; or, rarely, current infection with HBsAg below the limits of detection. Remotely potentially infectious
XIII		+				A rare profile that most likely represents an erroneous test result. Repeat serology indicated.
XIV				+		Probably erroneous test result. If anti-HBe were truly positive, then anti-HBc and perhaps anti-HBs should also be positive. Repeat serology indicated.
XV	+		+	+	+	A profile observed occasionally that could indicate circulating immune complexes of HBsAg in similar proportions so that both remain detectable; HBsAg and anti-HBs of different subtypes; or an erroneous anti-HBs test result. Infectious

Typical Serologic Profile of Acute HBV Infection



If applicable, marker patterns can be plotted on the graphic indicating the points at which they are most likely to occur.

In general for a resolving infection, HBeAg is present more transiently than HBsAg. Anti-HBe may not be detected even in a resolved infection.

HBV = hepatitis B virus
 HBsAg = hepatitis B surface antigen
 HBeAg = hepatitis B antigen
 Anti-HBc = antibody to hepatitis B core antigen
 Anti-Hbe = antibody to hepatitis B antigen
 Anti-HBs = antibody to hepatitis B surface antigen

A day is wasted when you haven't laughed