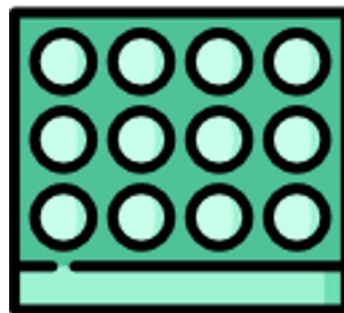




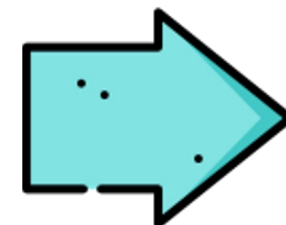
Blood test for hepatitis B
is HBsAg screening

- Presence of HBsAg confirms hepatitis B - acute or chronic
- Chronic infection is defined as persistence of HBsAg for six months or more
- In some cases, it is important to define chronicity of infection based on additional blood tests (order them, if there are facilities in your lab)



- Anti-HBs
- Anti-HBc
- IgM anti-HBc
- HBeAg ... not commonly available, and often negative in precore mutants
- HBsAg

In some countries, these are ordered as a Hep B combo test



Types of serological markers

Antigens	Antibodies
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HBsAg Hepatitis B surface Antigen

Anti-HBs

HBcAg Hepatitis B core Antigen

IgM anti-HBc

(absent in blood)

IgG anti-HBc

HBeAg Hepatitis B e Antigen

Anti-HBe

HBV DNA (Viral load) | Quantitative or qualitative

Interpretation of serological markers of hepatitis B virus

HBsAg	Anti-HBc IgG	Anti-HBc IgM	Anti-HBs	Interpretation
-	-	-	-	Never exposed (susceptible)
-	+	-	+	Past infection, cleared; natural immunity acquired
-	+	-	-	Past infection, cleared; natural immunity has waned over time
-	-	-	+	Immunity due to vaccination
-	-	+	+	Recent infection, recovered; immunity achieved
+	-	+	-	Acute ongoing infection
+	+	-	-	Chronic ongoing infection

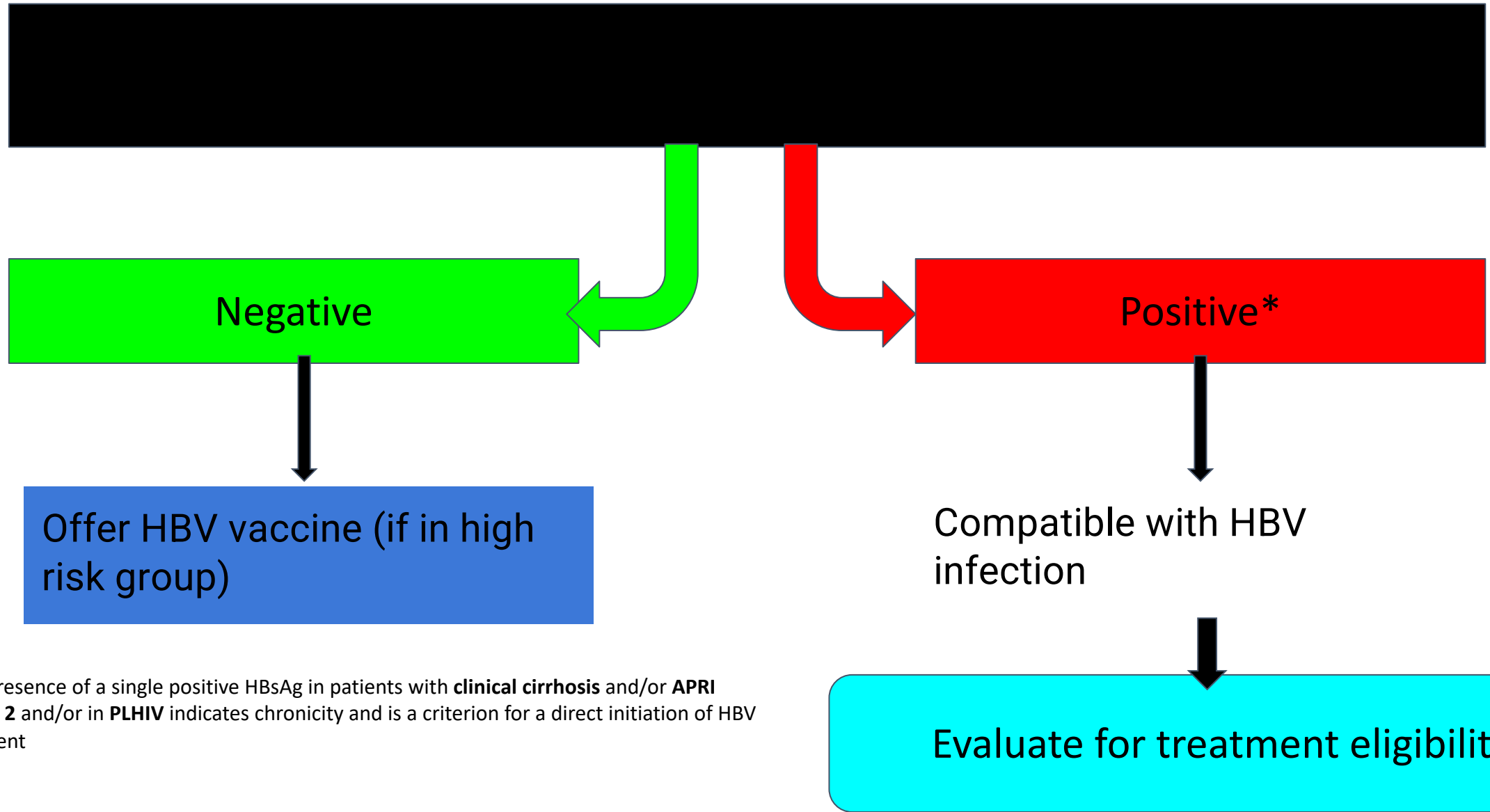
Groups for hepatitis B screening

Group	Initial	Results	Intervention
High risk group*	Systematic screening every 6 months, if not vaccinated	HBsAg -ve HBsAg +ve	Vaccinate and check anti-HBs See comments
Pregnant women	Systematic screening at 1st contact; then at labour, if not vaccinated	HBsAg -ve HBsAg +ve	Provide vaccine and check anti-HBs See comments
Symptomatic	Systematic screening at 1st contact, if not vaccinated	HBsAg -ve HBsAg +ve	Provide vaccine and check anti-HBs See comments
General population (endemic)	Propose screening once a year, if not vaccinated	HBsAg -ve HBsAg +ve	Provide vaccine and check anti-HBs See comments

*Refer to module 1 for more information on high risk groups

All HBsAg +ve - evaluate and refer for treatment; special recommendation for pregnant women

Algorithm for screening and diagnosis of chronic hepatitis B virus infection



*The presence of a single positive HBsAg in patients with **clinical cirrhosis** and/or **APRI score > 2** and/or in **PLHIV** indicates chronicity and is a criterion for a direct initiation of HBV treatment