

Hepatitis and pregnancy

Pierre-Jean Malè MD

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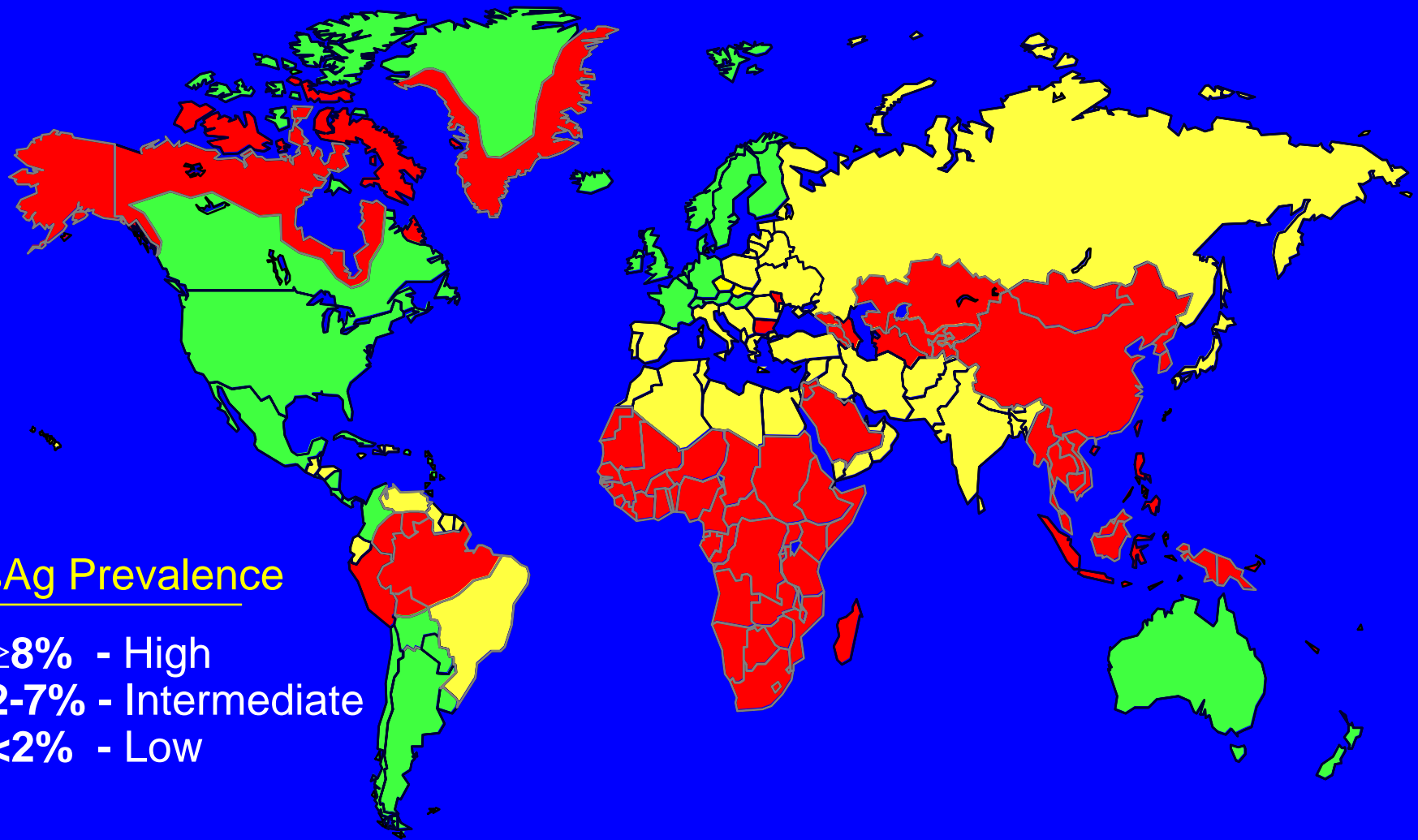
Liver disease and pregnancy: three possible etiologic relationship

- *the patient has a liver disease induced by pregnancy : acute fatty liver disease of pregnancy, intrahepatic cholestasis of pregnancy, hyperemesis gravidarum, preeclampsia or HELLP syndrome*
- *the patient has developed a new liver disease during pregnancy mainly hepatobiliary disease*

Liver disease and pregnancy: three possible etiologic relationship

- *the patient has preexisting chronic liver disease, mainly chronic hepatitis B and C*
- *- this topic review will discuss this last issue*

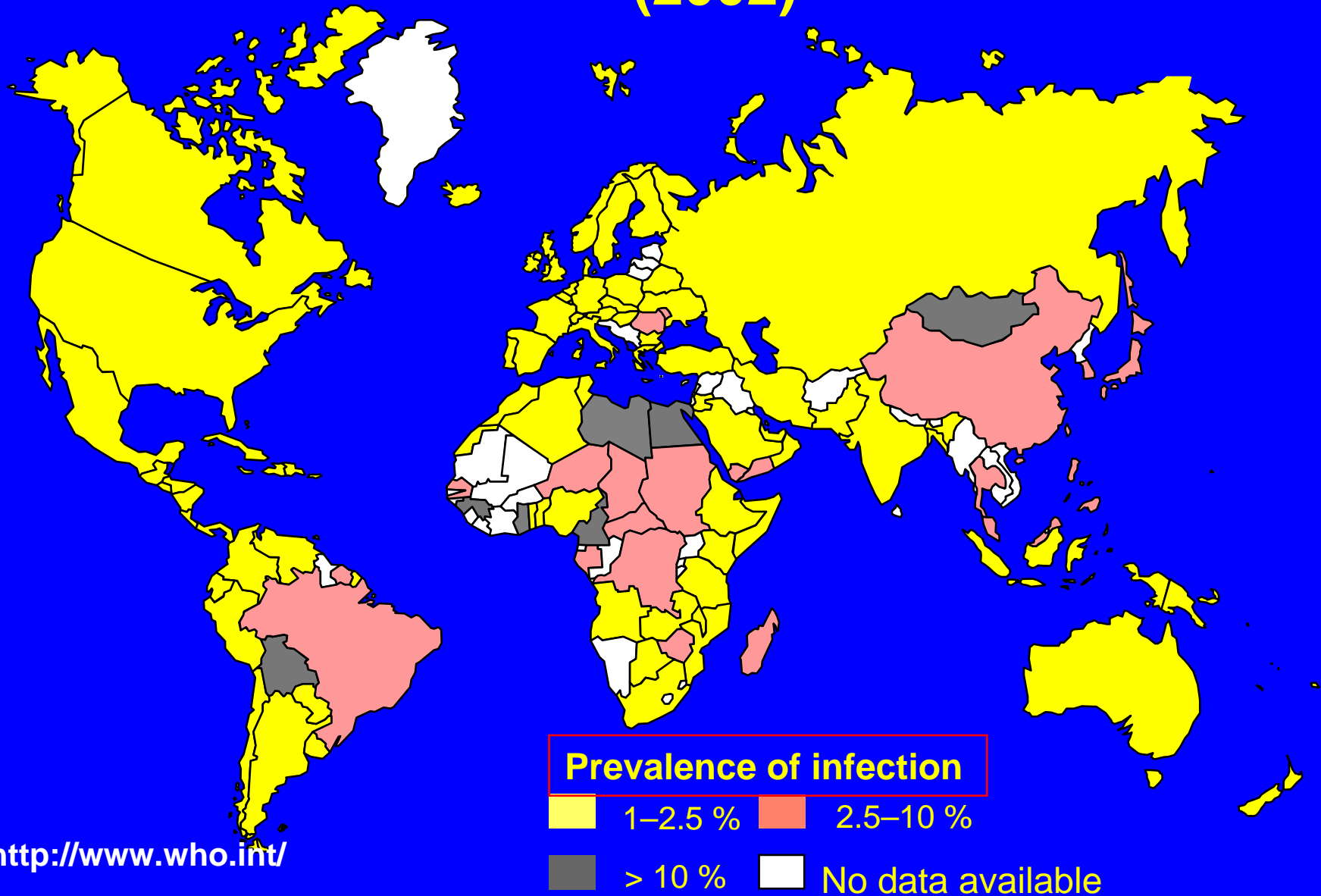
Geographic Distribution of Chronic HBV Infection



HBsAg Prevalence

- $\geq 8\%$ - High
- 2-7% - Intermediate
- $< 2\%$ - Low

Prevalence of Chronic Hepatitis C (2002)



Hepatitis and pregnancy

- *in women with severe chronic liver disease, pregnancy is unusual:*
 - *most such women are not of child-bearing age*
 - *the chronic liver disease is associated with anovulatory state*

Cirrhosis and portal hypertension

The main problem for a pregnant women is cirrhosis and portal hypertension:

- worsening jaundice with progressive liver failure*
- ascites*
- hepatic coma*

Cirrhosis and portal hypertension

The increase in total blood volume associated with pregnancy may worsen preexisting portal hypertension and variceal hemorrhage during pregnancy and labor has been described, but is a rare situation

Cirrhosis and portal hypertension

Women with known cirrhosis who desire pregnancy should be endoscoped to look for varices before pregnancy

If present, patients should be informed of the increased risk with pregnancy

Cirrhosis and portal hypertension

Patients at high risk for variceal bleeding should be considered for primary prophylaxis with non-selective beta blockers (eg propranolol or nadolol)

Newborns should be monitored during the first days of life because of risks of hypoglycemia and bradycardia.

Chronic hepatitis B or C and pregnancy

Complete evaluation of the patient:

- clinical examination, liver tests, prothrombine time, albumines, HBV-DNA, HCV-RNA*
- if you suspect a cirrhosis, perform an upper GI endoscopy to look for varices*

Chronic hepatitis B and pregnancy

Pregnancy is well tolerated by women who are chronic carriers of hepatitis B

The placenta forms an excellent barrier against transmission of this large virus and intrauterine infection is rare

Chronic hepatitis B and pregnancy

The major problem for women who are chronic carriers of HBV is the risk of maternal to infant (vertical) transmission at delivery due to exposure to maternal blood in the birth canal

Routine prenatal screening of all pregnant women for HBsAg and universal hepatitis B vaccination of all newborns at birth is the standard of care

Chronic hepatitis B and pregnancy

Transmission at birth is more likely if the mother is :

HBeAg positive B

or

has high circulating levels of HBV-DNA

Chronic hepatitis B and pregnancy

*Active (vaccine) and passive (HBIG)
immunisation interrupts transmission in
over 90 %*

*What could be proposed to try to reach
100 % ?*

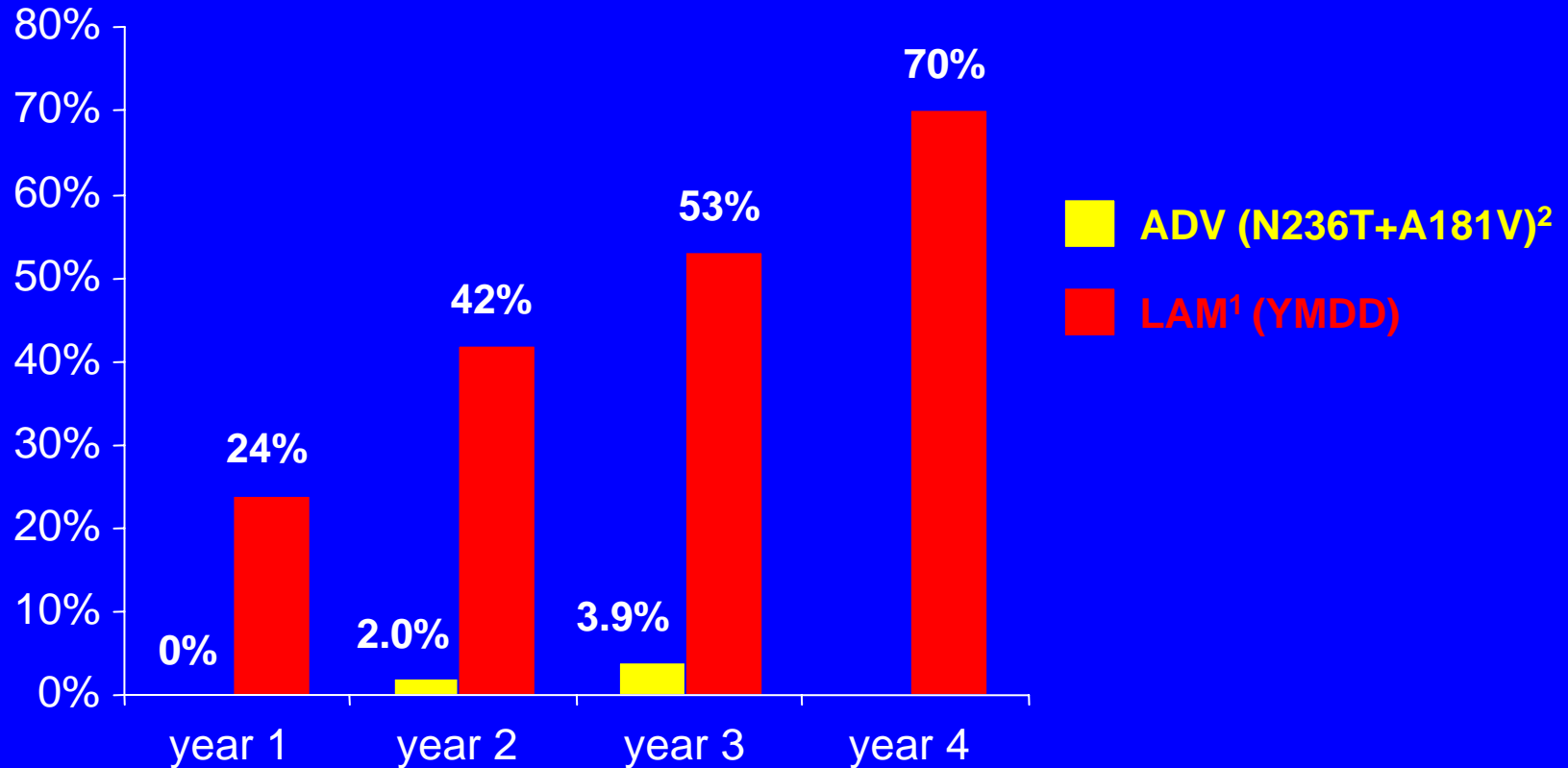
Lamivudine during pregnancy

A small study has been performed in Taiwan in women becoming pregnant during a treatment with lamivudine: some agreed to continue the treatment during the pregnancy:

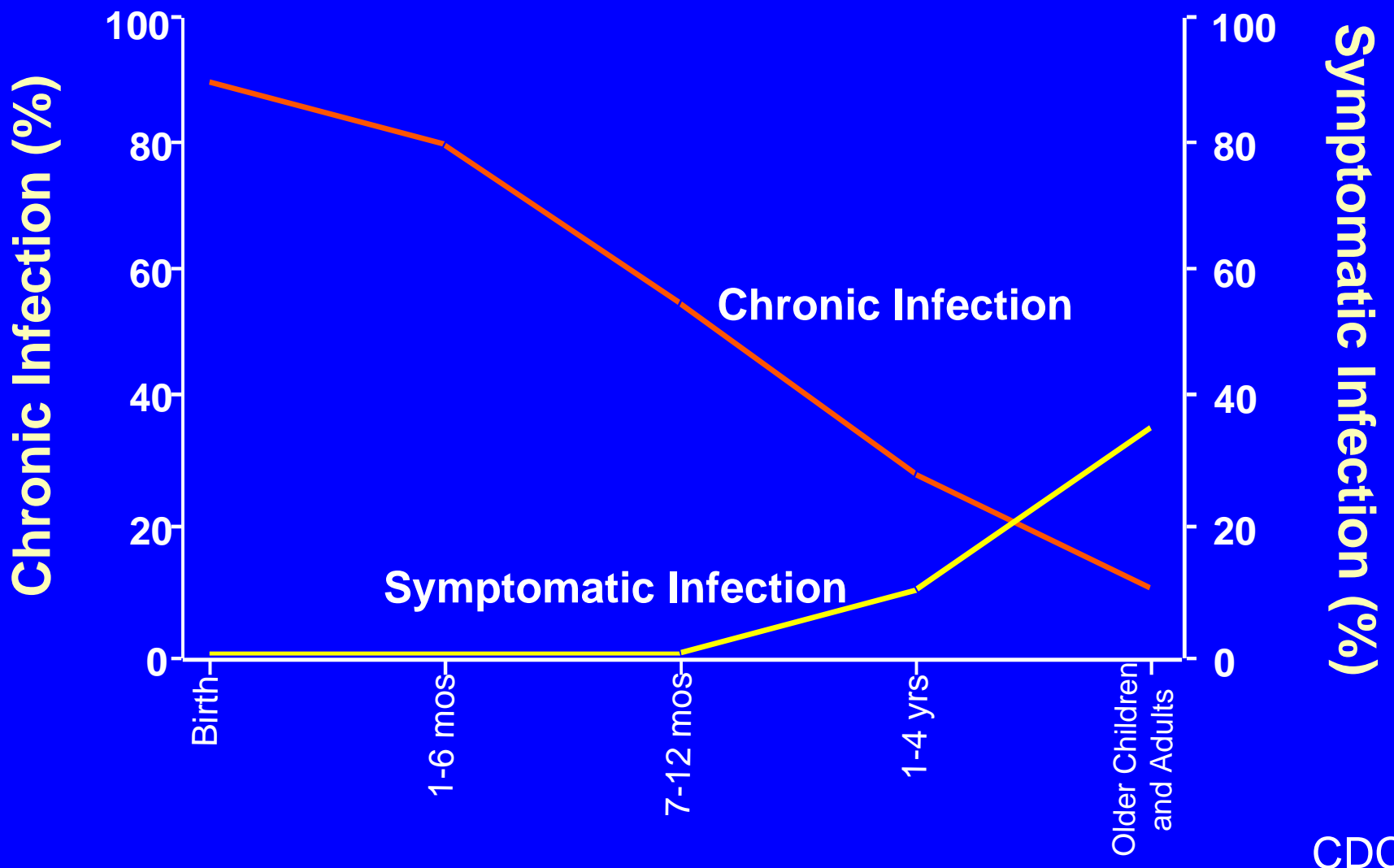
*the treatment was safe for the baby: no increase of stillbirths or premature delivery
the protection reached 100 %*

Incidence of ADV Compared to Lamivudine Resistance

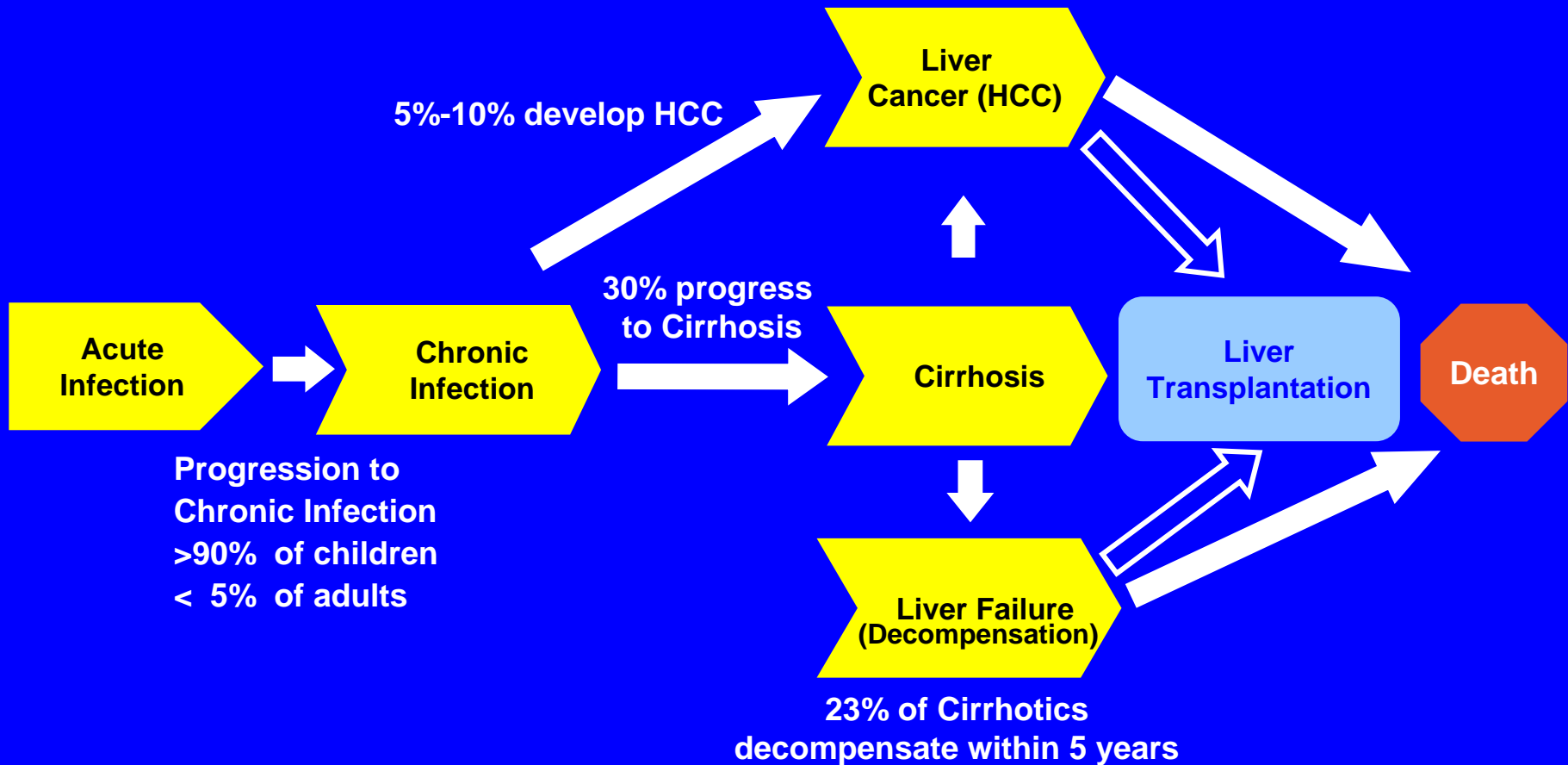
- Delayed and infrequent emergence of adefovir resistance mutations



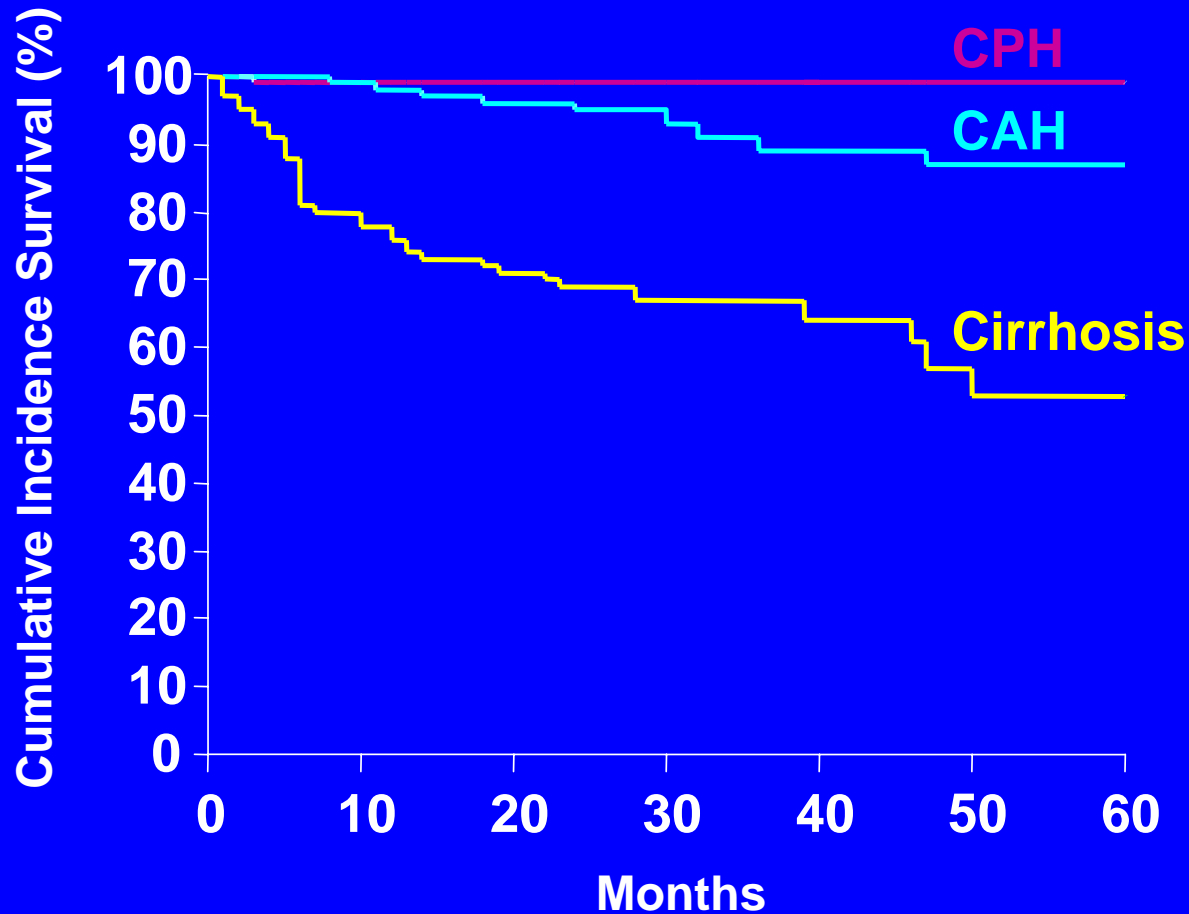
Outcome of Hepatitis B Virus Infection by Age at Infection



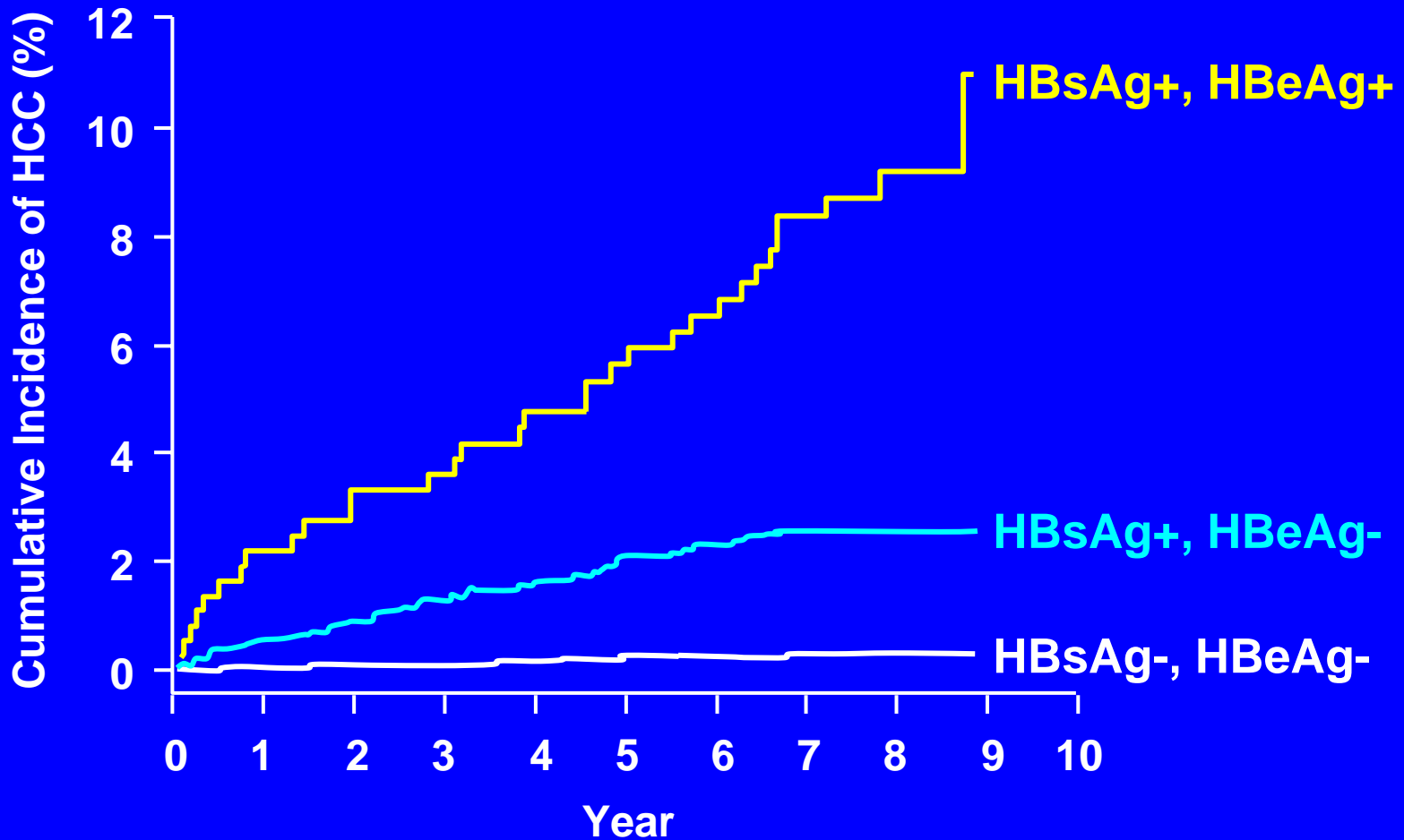
Hepatitis B Disease Progression



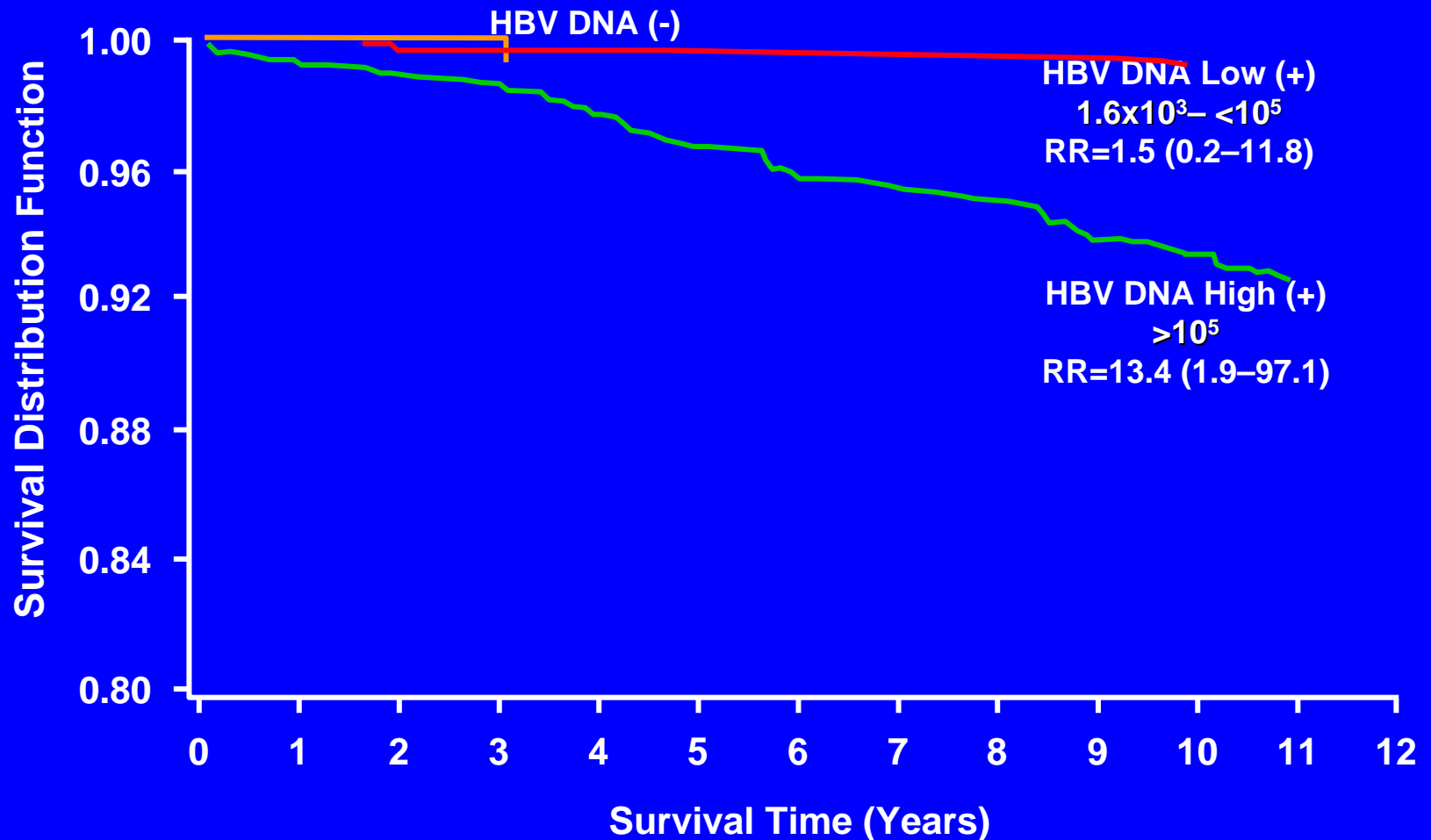
5 Year Survival in Chronic Hepatitis B



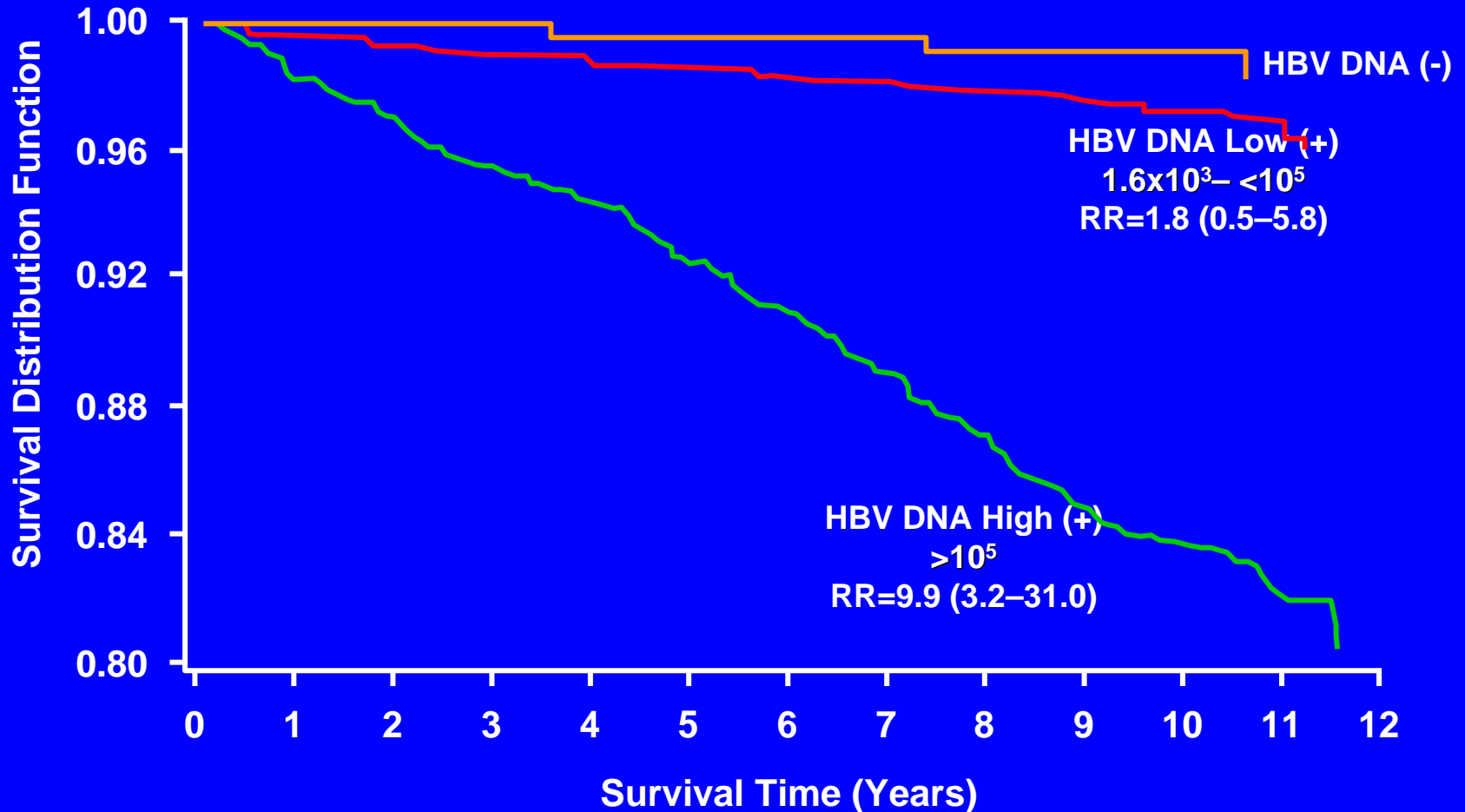
Hepatitis B and Risk of HCC

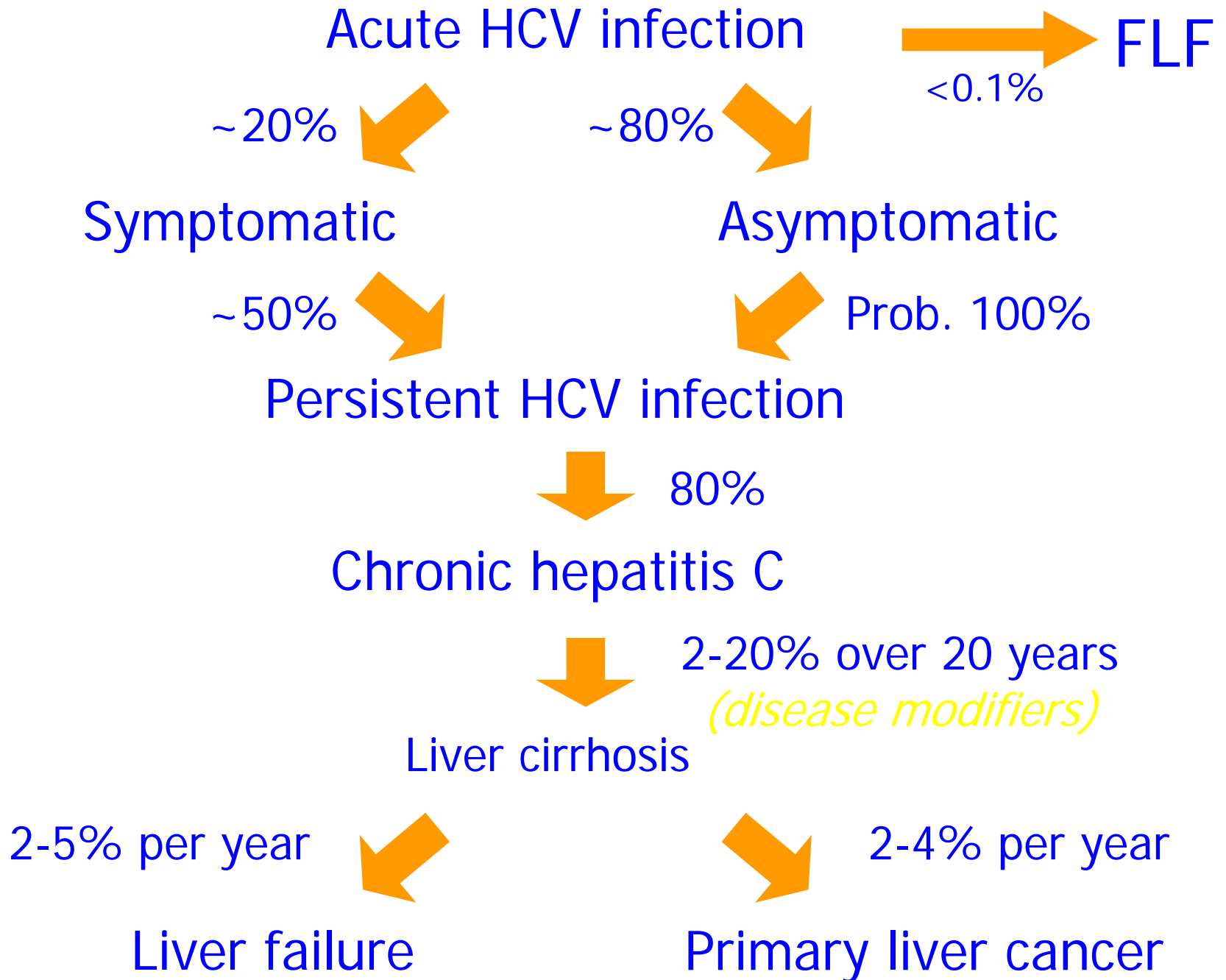


Chronic Liver Disease Mortality by HBV Viral Load at Baseline



HCC Mortality by HBV Viral Load at Baseline





Factors affecting fibrogenesis and response to therapy in HCV infection

Factor	Affects fibrogenesis	Affects treatment response
Age	Yes	Yes
Sex	Yes	Yes
Genotype	Unclear	Yes
Viral load	No	Yes
Alcohol abuse	Yes	Yes
HIV coinfection	Yes	Yes
HBV coinfection	Yes	Unclear
Overweight	Yes	Yes
Steatosis	Yes	Yes
Insulin resistance	Yes	Yes

Thank you for your attention

Merci de votre attention