

HBV Summary Sheet- Based on 2009 American Association for the Study of Liver Diseases (AASLD) guidelines

Definitions

Chronic Hepatitis B (CHB):

HBsAg+ >6 mos, VL>20,000 IU/ml (10⁵ cop/ml), but often VL 2,000-20,000 IU/ml (10⁴-10⁵ cop/ml) in eAg- CHB, bx w mod-sev necroinflam

Inactive HBsAg carrier state

HBsAg+ >6 mos, VL <2,000 IU/ml, eAg-/ eAb+, persistently nl ALT/AST, liver bx without hepatitis

Resolved HBV

Known hx of acute or chronic HBV OR presence of anti-HBc ± anti-HBs, HBsAg-, undetectable HBV Dna, nl ALT

Liver bx is most useful in pts who do not meet clear cut guidelines for treatment. HBV pts with ALT close to ULN may have abnl histology.

Follow-up/Treatment guidelines

HBeAg -	ALT	VL	Comment	Visit frequency
(HbeAb+)	ULN	<2,000 IU/ml or <10 ⁴ copies/ml	check q3 mos for 1st yr to verify true inactive carrier phase	6-12 mos
	ULN	>2,000 IU/ml or >10 ⁴ copies/ml	no treatment	3-6 mos
	1-2x ULN	>2,000 IU/ml or >10 ⁴ copies/ml	consider tx as needed	3 mos
	2 xULN	20,000 IU/ml or >10 ⁵ copies/ml	tx if persistent	1-3 mos
HBeAg+	ALT	VL	Comment	Visit frequency
	ULN	<20,000 IU/ml or <10 ⁵ copies/ml	no treatment	3-6 mos
	ULN	20,000 IU/ml or >10 ⁵ copies/ml	if <35 yrs age, likely immune tolerant phase	3-6 mos
	1-2 ULN	20,000 IU/ml or >10 ⁵ copies/ml	if persistent, cons. tx esp if >40, fam hx HCC, decompens.	3 mos
	2 ULN	20,000 IU/ml or >10 ⁵ copies/ml	if ALT >3-6 mos, consider liver bx & treatment	1-3 mos
** Check eAg status q 6 months				

Response Definition

Biochemical response Decrease in ALT to nl

Virologic response Decr in VL to undetectable, eAg seroconversion

Primary nonresponse Decrease in VL by <2log IU/ml after 24 weeks of tx

Virologic relapse in VL by 1 log₁₀ after d/c tx, measured 2x, 4 wks apt

(*1/3 of VB in clinical trials due to noncompliance)

1st line

Entecavir

Baraclude

21% e serocnvsn rate in 1st yr, more potent than LAM, ADV, 74% undetectbl VL

nucleoside

0.5, 1.0mg

d/c LAM (don't add), use 1mg for LAM resistnt, resistance 3.6% by wk 96, hghr if LAM resistnt

Tenofovir

Viread

more potnt than ADV, 48 wks eAg+ 76% undtctbl VL, eAg- 93%, no resistnc at 72 wk,

nucleotide

300 mg

SE: decr bone density, renal insufficiency, Fanconi, osteomalacia, +emtricitabine=Truvada

2nd line

Adefovir

Hepsera

12-14% e serocnvsn rate, 30% primary nonrsponse, resistance rate=30% by 5 yrs in eAg-, 20% in eAg+,

nucleotide

10 mg

combine w lamivudine to decr resistance, sequential monotx from LAM may lead to dual mutants

Lamivudine

Epivir

well tolerated, 16-18% e serocnvsn in 1st yr, 77% durability, for eAg-, durability<10%

nucleoside

100 mg

14-32% resistance p 1 yr, 60-70% resistance p 5 yrs →consider switching if >2 yrs, if breakthrgh, test for mutns

Telbivudine

Tyzeka

same e serocnvsn rate as LAM, higher undetectabl VL than LAM

nucleoside

600 mg

high resistance, 25% by 2 yrs in eAg+, 11% in eAg-, mutations xresistant w LAM

Breakthrough/Resistance Definition

Biochemical breakthrough- incr in ALT >ULN after normalization

Virologic breakthrough (VB)*- incr in VL by 10x above nadir

Viral rebound- incr in VL to >20,000 IU/ml or above pretx level

Genotypic resistance- detect mutations assoc w NA resistnce

Phenotypic resistance- mutation + in vitro confirmation

Closely monitor s/p discontinuation of meds for viral relapse and hepatitis flares

LAM resistance

If ADV, cont LAM

if TDF, cont LAM

if ETV (not ideal), d/c LAM

ADV resistance

If no other NA exposure, can add LAM, ETV or telbivudine

If also LAM resistant, d/c ADV, and start TDF+LAM, emtricitabine or ETV

ETV resistance

Can use ADV or TDF