

West Haven criteria of altered mental state in hepatic encephalopathy.

	Stage I	Stage II	Stage III	Stage IV	Stage V
PHYSICAL SIGN	prodrome	impending coma	stupor	coma	coma
mental status	alert; slow mentation; Euphoria, occasional depression, confusion; sleep pattern reversal	stage I signs amplified; lethargic, sleepy,	arousable, but generally asleep; marked confusion	unarousable or responds only to pain	unarousable
behavior	restless, irritable, disordered speech	combative, sullen, loss of sphincter control	sleeping, confusion, incoherent speech	none	none
spontaneous motor activity	uncoordinated with tremor	yawning, grimacing, blinking	decreased, severe tremor	absent	none
asterixis	absent	present	present	absent	absent
reflexes	normal	hyperactive	hyperactive + Babinski	hyperactive + Babinski	absent
respirations	regular or hyperventilating	hyperventilating	hyperventilating	irregular	apnea
oculocephalic oculovestibular	normal	normal	normal	partial dysconjugate	absent
EEG	normal	normal	generalized slowing	markedly abnormal	markedly abnormal
<u>Glasgow coma scale</u>	15	15	11-13	3-9	3-4
eye opening	spontaneous = 4	spontaneous = 4	spontaneous = 4 or only to sound = 3	to pain only = 2 or never = 1	
motor	obeys commands = 6	obeys commands = 6	obeys commands = 6 or localizes pain = 5	normal flexion = 4 or abnormal flexion = 3 or extension = 2 or no response = 1	extension = 2 or no response = 1
verbal	oriented = 5	oriented = 5	confused = 4 or inappropriate responses = 3	inappropriate = 3, or incomprehensible = 2 or no response = 1	no response = 1
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Child's grade ?

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Grading of the symptoms of hepatic encephalopathy is as follows:

- Grade 0 - Clinically normal mental status but minimal changes in memory, concentration, intellectual function, and coordination
- Grade 1 - Mild confusion, euphoria, or depression; decreased attention; slowing of ability to perform mental tasks; irritability; and disordered sleep pattern, such as inverted sleep cycle
- Grade 2 - Drowsiness, lethargy, gross deficits in ability to perform mental tasks, obvious personality changes, inappropriate behavior, and intermittent disorientation, usually regarding time
- Grade 3 - Somnolent but can be aroused, unable to perform mental tasks, disorientation about time and place, marked confusion, amnesia, occasional fits of rage, present but incomprehensible speech
- Grade 4 - Coma with or without response to painful stimuli

Grading system for cirrhosis: the Child-Pugh score

Score	Bilirubin (mg/dl)	Albumin (g/l)	PT (Sec)	Hepatic encephalopathy	Ascites (grade)
1	< 2	> 35	1 - 4	None	None
2	2 - 3	28 - 35	4 - 6	1 - 2	Mild
3	> 3	< 28	> 6	3 - 4	Severe

Child class: A= 5 - 6, B= 7 - 9, C= > 9

Other poor prognostic indicators include:

Low serum Sodium (<120mmol/l)

Failure of response to therapy

Persistent hypotension

Aetiology (eg.continued drinking in alcoholic cirrhosis).