

Chronic hepatitis C infection treated with direct-acting antiviral agents and occurrence/recurrence of hepatocellular carcinoma: does it still matter?

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Supplementary Table S4. HCC risk calculators.

Tool	Description
FIB-4 ¹	$\text{Age (years)} \times \text{AST [U/L]} / (\text{platelet count [10}^9\text{/L]} \times (\text{ALT [U/L]})^{1/2}$
aMAP ²	$((\text{age [years]} \times 0.06 + \text{gender} \times 0.89 (\text{male: 1, female: 0}) + 0.48 \times ((\log_{10} \text{bilirubin } [\mu\text{mol/L}] + (\text{albumin [g/L]} \times -0.085)) - 0.01 \times \text{platelet count [10}^3\text{/mm}^3]) + 7.4) / 14.77 \times 100$
GALAD ²	$-10.08 + 1.67 \times \text{gender (male: 1, female: 0)} + 0.09 \times \text{age} + 0.04 \times \text{AFP-L3\%}^3 + 2.34 \times \log_{10}\text{AFP} \times \log_{10}\text{DCP}$

Tool	Predictors	Predictor categories
VA HCC model ^{2,4}	AFP, ng/mL	≤ 4
		$> 4 - 6.5$
		$> 6.5 - 10.5$
		$> 10.5 - 14.71$
		> 14.71
	Sex	Male
		Female
	Age, years	≤ 56
		$> 56 - 60$
		$> 60 - 64$
		$> 64 - 67$
		> 67

GES score ²	BMI, Kg/m ²	<div>< 20</div> <div>20- 25</div> <div>25 - 30</div> <div>30- 35</div> <div>> 35</div>
	Race/Ethnicity	<div>White, non-Hispanic</div> <div>Black, non-Hispanic</div> <div>Hispanic</div> <div>Other</div> <div>Declined to answer, missing</div>
	HCV Genotype	<div>Non-3</div> <div>Genotype 3</div>
	Hemoglobin, g/dL	<div>> 15.7</div> <div>> 14.8 - 15.7</div> <div>> 13.7 - 14.8</div> <div>> 12.7 - 13.7</div> <div>≤ 12.7</div>
	Platelet count, x 10 ⁹ /L	<div>> 167</div> <div>> 123 - 167</div> <div>> 87 - 123</div> <div>> 61 - 87</div> <div>≤ 61</div>
	Albumin, g/dL	<div>> 4.0</div> <div>> 3.7 – 4.0</div> <div>> 3.3 - 3.7</div> <div>> 2.9 - 3.3</div> <div>≤ 2.9</div>
	INR, Units	<div>≤ 1.00</div> <div>> 1.00 - 1.20</div> <div>> 1.20 - 1.34</div> <div>> 1.34</div>
	AST/ ¹ ALT	<div>≤ 6.50</div> <div>6.50 - 8.49</div> <div>8.49 - 11.01</div> <div>11.01 - 13.90</div> <div>> 13.90</div>
	Sex	<div>Male</div> <div>Female</div>
	Age, years	<div>≤ 54</div>

		> 54
	Fibrosis stage	F3
		F4
	Albumin, g/dL	≥ 3.8
		< 3.8
	AFP, ng/mL	≤ 20
		> 20
ADRESS-HCC model ²	Age, years	
	Diabetes	Present
		Absent
	Race/Ethnicity	Non-Hispanic white
		Non-white or Hispanic
	Etiology	Autoimmune
		Alcohol/metabolic
		Viral
	Sex	Male
		Female
	Child-Pugh score (severity of liver disease)	5 → 15
Watanabe score ²	Sex	Male
		Female
	Diabetes mellitus	Present
		Absent
	White blood cell count, n x μL	≥ 5,600
		4,223–5,600
		≤ 4,223
	Prothrombin activity, %	≥ 99.7
		87.1–99.7
		≤ 87.1
	FIB-4 index at EOT ⁵	≤ 1.7
		1.7–2.8
		≥ 2.8
	FIB-4 index at SVR	≤ 1.84
		1.84–2.90
		≥ 2.90
	AFP at EOT, ng/mL	≤ 3.0
		3.0–4.6
		≥ 4.6
	AFP at SVR, ng/mL	≤ 2.8

	2.8–4.0
	≥ 4.0
RNN HCC model ²	Age ⁶ , sex, race, HCV genotype ⁷ Cirrhosis development, SVR achievement, BMI ⁸ Bilirubin, AST, AST/ULN, ALT, ALT/ULN, AFP, AFP/ULN, ALP, ALP/ULN, albumin, AST/ALT, FIB-4 score, APRI, blood urea nitrogen, creatinine, glucose, INR, hemoglobin, white blood cell count, platelet count, sodium, potassium, chloride, total protein ^{8,9}

Abbreviations: α -fetoprotein (AFP); α -fetoprotein L1 glycoform (AFP-L1); LCA-reactive α -fetoprotein L3 glycoform (AFP-L3); alkaline phosphatase (ALP); AST-platelet ratio index (APRI); aspartate transaminase (AST); alanine aminotransferase (ALT); body mass index (BMI); des-gamma-carboxy-prothrombin (DCP); advanced liver fibrosis (F3); liver cirrhosis (F4); fibrosis-4 (FIB-4); hepatocellular carcinoma (HCC); hepatitis C virus (HCV); international normalized ratio (INR); lens culinaris agglutinin (LCA); recurrent Neural Network (RNN); sustained virologic response (SVR); upper limit of normal (ULN); Veterans Affairs (VA). ¹ simplified scoring system. ² multivariable HCC risk calculator. ³ calculated as follows: AFP-L3% = AFP-L3 concentration / (AFP-L1 concentration + AFP-L3 concentration) \times 100. ⁴ Four groups (cirrhosis/SVR, cirrhosis/no SVR, no cirrhosis/SVR, no cirrhosis/no SVR). Available online: www.hccrisk.com (accessed on 23 September 2024). ⁵ at end of treatment (EOT). ⁶ at cirrhosis diagnosis. ⁷ all baseline predictors. ⁸ all longitudinal predictors. ⁹ all laboratory blood tests.