

Table S1 Multivariate models based on BALAD, BALAD-2 and BAA-BS in hepatitis B virus-related HCC patients (N=208)

Variable	BALAD multivariate model		BALAD-2 multivariate model		BAA-BS model	
	HR (95%CI)	P value	HR (95%CI)	P value	HR (95%CI)	P value
Largest tumor size (cm) ^a	1.09(1.03-1.15)	0.002**	1.12(1.07-1.18)	<0.001**	1.11(1.05-1.17)	<0.001**
BMI (kg/m ²) ^a	0.91(0.85-0.97)	0.006**	0.90(0.84-0.97)	0.004**	0.90(0.84-0.97)	0.006**
BALAD score ^b	1.51(1.25-1.82)	<0.001**				
BALAD-2 score ^c			1.57(1.07-2.31)	0.022*		
Total bilirubin (μmol/L) ^d					1.47(1.10-1.96)	0.009**
Albumin (g/L) ^e					1.79(1.26-2.55)	0.001**
AFP (ng/mL) ^f					1.95(1.33-2.87)	0.001**
Harrell-C statistic (95%CI)	0.721(0.668-0.774)		0.693(0.638-0.748)		0.722(0.669-0.775)	

* $P < 0.05$, ** $P < 0.01$; HRs are calculated: [per increase of 1: a; per increase of 1 classification: b(0, 1, 2, ≥ 3), c (≤ 2 , 3, 4), d(< 17.1, 17.1–34.2, >34.2), e(> 35, 28-35, <28), f(≤ 400 , > 400)]

Table S2 Multivariate models based on BALAD, BALAD-2 and BAA-BS in normal weight HCC patients (18.5 kg/m² < BMI < 25.0 kg/m²) (N=195)

Variable	BALAD multivariate model		BALAD-2 multivariate model		BAA-BS model	
	HR (95%CI)	P value	HR (95%CI)	P value	HR (95%CI)	P value
Largest tumor size (cm) ^a	1.12(1.06-1.18)	<0.001**	1.14(1.08-1.20)	<0.001**	1.14(1.08-1.20)	<0.001**
BMI (kg/m ²) ^a	0.88(0.77-0.98)	0.034*	0.86(0.76-0.98)	0.023*	0.85(0.75-0.96)	0.011*
BALAD score ^b	1.40(1.15-1.72)	0.001**				
BALAD-2 score ^c			1.54(1.03-2.31)	0.039**		
Total bilirubin (μmol/L) ^d					1.30(1.03-1.74)	0.035*
Albumin (g/L) ^e					1.68(1.18-2.40)	0.004**
AFP (ng/mL) ^f					1.50(1.09-2.27)	0.024*
Harrell-C statistic (95%CI)	0.716 (0.659-0.773)		0.707 (0.650-0.764)		0.718 (0.659-0.776)	

* $P < 0.05$, ** $P < 0.01$; HRs are calculated: [per increase of 1: ^a; per increase of 1 classification: ^b(0, 1, 2, ≥ 3), ^c(≤ 2 , 3, 4), ^d(< 17.1, 17.1–34.2, ≥ 34.2), ^e(> 35, 28-35, <28), ^f(≤ 400 , > 400)]