

# From a Philosophical Framework to a Valid Prognostic Staging System of the New “Comprehensive Assessment” for Transplantable Hepatocellular Carcinoma

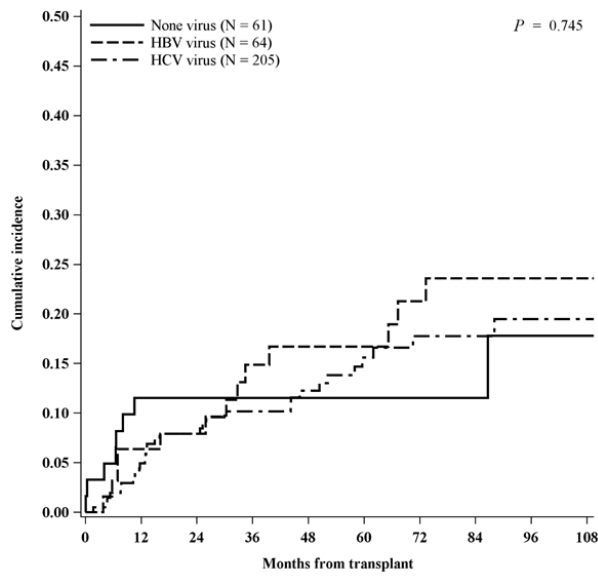
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Table S1. Transplanted patients’ characteristics (N = 330).

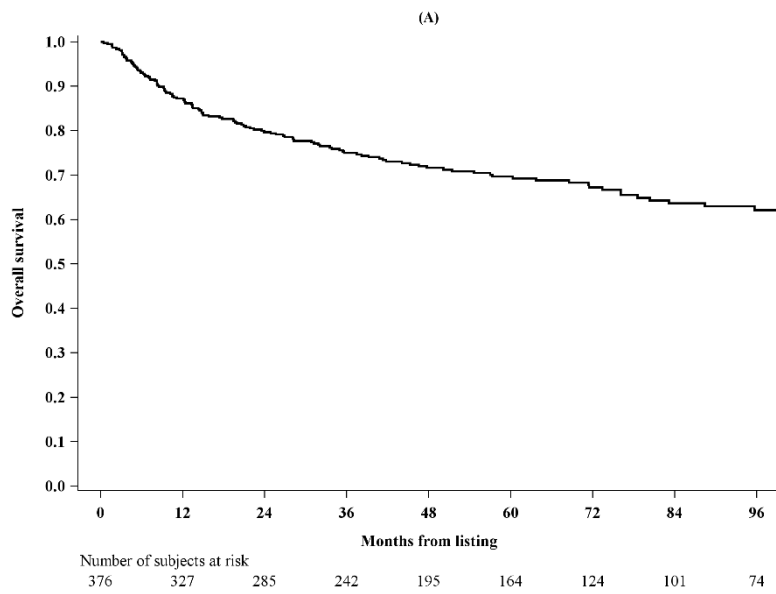
		Transplanted PTs			P <sup>1</sup>
		Low Risk (N = 108)	Intermediate Risk (N = 63)	High Risk (N = 159)	
<b>Characteristics of PTs</b>					
Age, median (IQR)		57 (52–61)	57 (53–61)	57 (52–62)	0.80
Sex, N (%)	Men	91 (84)	52 (83)	146 (92)	0.07
	Women	17 (16)	11 (17)	13 (8)	
Presence of HCV, N (%)	No	47 (44)	23 (37)	55 (35)	0.33
	Yes	61 (56)	40 (63)	104 (65)	
Presence of HBV, N (%)	No	79 (73)	48 (76)	124 (78)	0.66
	Yes	29 (27)	15 (24)	35 (22)	
Abuse of alcohol, N (%)	No	74 (69)	44 (70)	117 (74)	0.64
	Yes	34 (31)	19 (30)	42 (26)	
Other cause of cirrhosis, N (%) <sup>2</sup>	No	105 (97)	59 (94)	149 (94)	0.40
	Yes	3 (3)	4 (6)	10 (6)	
<b>Parameters at listing</b>					
AFP (ng/mL), median (IQR)		8 (5–20)	8 (4–14)	9 (4–25)	0.31
	Missing	6	1	12	
Number of nodules, median (IQR)		1 (1–1)	2 (1–2)	1 (1–2)	<0.0001
Diameter of the largest nodule (mm), median (IQR)		20 (15–27)	23 (16–35)	24 (16–30)	0.04
	Missing	6	3	7	
MELD score, N (%)	≤9	34 (32)	15 (25)	61 (39)	0.0005
	10–19	67 (62)	35 (57)	91 (59)	
	20–29	4 (4)	10 (16)	3 (2)	
	≥30	2 (2)	1 (2)	0 (0)	
	Missing	1	2	4	
CHILD score, N (%)	A	46 (47)	17 (31)	92 (62)	<0.0001
	B	39 (40)	21 (39)	51 (34)	
	C	13 (13)	16 (30)	6 (4)	
	Missing	10	9	10	
Macrovascular invasion, N (%)	No	102 (98)	57 (100)	146 (98)	0.56
	Yes	2 (2)	0 (0)	3 (2)	
	Missing	4	6	10	
Tumor classification, N (%)	T1–T2	102 (100)	43 (72)	119 (78)	<0.0001
	T3–T4	0 (0)	17 (28)	33 (21)	
	Missing	6	3	7	
<b>Parameter at the last restaging</b>					
Restaging, N (%)	TT0c	6 (5.6)			
	TT0L	93 (86.1)			

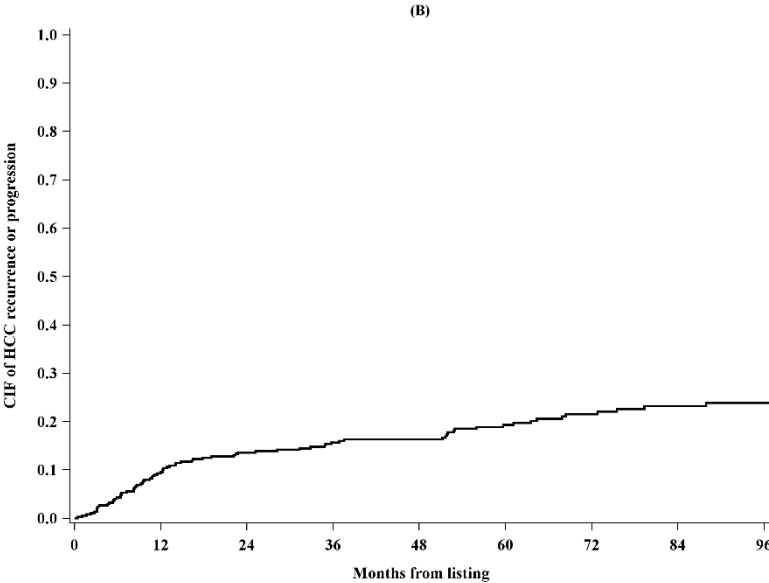
		Transplanted PTs			<i>P</i> <sup>1</sup>
		Low Risk (N = 108)	Intermediate Risk (N = 63)	High Risk (N = 159)	
	TT1	9 (8.3)	-	-	
	TT0 <sub>NT</sub>		15 (23.8)		
	TT <sub>FR</sub>		32 (50.8)		
	TT <sub>UT</sub>		16 (25.4)		
	TT <sub>PR</sub>			80 (50.3)	
	TT <sub>DR</sub>			79 (49.7)	
AFP (ng/mL), median (IQR)		8 (3–36)	8 (4–17)	8 (3–39)	0.98
	<i>Missing</i>	9	3	19	
Number of nodules, median (IQR)		0 (0–0)	1 (0–2)	2 (1–3)	<0.0001
	<i>Missing</i>	4	8	13	
Diameter of the largest nodule (mm), median (IQR)		15 (12–17)	21 (16–28)	17 (14–21)	0.02
	<i>Missing</i>	1	5	13	
Time from the last TRT to restaging (days), median (IQR)		85 (44–217)	67 (5–177)	115 (44–260)	0.52
	<i>Missing</i>	3	0	11	
MELD score, N (%)	≤9	34 (32)	20 (32)	51 (32)	0.0014
	10–19	66 (61)	29 (46)	98 (62)	
	20–29	4 (4)	13 (21)	8 (5)	
	≥30	3 (3)	1 (2)	1 (1)	
	<i>Missing</i>	1	0	1	
CHILD score, N (%)	A	46 (47)	17 (31)	89 (61)	<0.0001
	B	39 (40)	21 (39)	52 (36)	
	C	13 (13)	16 (30)	5 (3)	
	<i>Missing</i>	10	9	13	
Tumor classification, N (%)	T0	88 (85)	15 (29)	0 (0)	<0.0001
	T1–T2	15 (14)	32 (63)	113 (82)	
	T3–T4	1 (1)	4 (8)	25 (18)	
	<i>Missing</i>	4	12	21	
TRT, N (%)	No	9 (8)	48 (76)	0 (0)	<0.0001
	Yes	99 (92)	15 (24)	159 (100)	
<b>Parameters and pathology at LT</b>					
AFP (ng/mL), median (IQR)		7 (4–23)	7 (4–17)	10 (5–34)	0.05
	<i>Missing</i>	13	3	19	
Number of nodules, median (IQR)		1 (0–2)	2 (1–3)	2 (1–3)	<0.0001
Diameter of the largest nodule (mm), median (IQR)		16 (10–20)	25 (15–35)	25 (15–30)	<0.0001
Grade of HCC, N (%)	0	25 (27)	3 (5)	8 (5)	<0.0001
	1	15 (16)	8 (13)	11 (7)	
	2	35 (37)	36 (60)	77 (49)	
	3	19 (20)	13 (22)	61 (39)	
	<i>Missing</i>	11	3	1	
Microvascular invasion, N (%)	No	79 (89)	44 (79)	95 (61)	<0.0001
	Yes	10 (11)	12 (21)	60 (39)	
	<i>Missing</i>	19	7	4	
Macrovascular invasion, N (%)	No	88 (99)	57 (100)	144 (95)	0.06
	Yes	1 (1)	0 (0)	8 (5)	
	<i>Missing</i>	19	6	7	

PTs: patients, IQ: interquartile range, DG: diagnosis, LT: transplant. <sup>1</sup>Chi-square *P* for categorical variables, Wilcoxon *P* for continuous variables. <sup>2</sup>Other causes of cirrhosis include: CRIPTO, HDV, HIV, emacromatosis, Wilson disease, sclerosing cholangitis, cholangitis primary biliary, and secondary biliary cholangitis.



**Figure S1.** Cumulative incidence of HCC recurrence after liver transplantation for all transplanted patients, stratified between patients without HBV and HCV virus (N = 61), patients with HBV virus (N = 64), and patients with HCV or both viruses (N = 205).





**Figure S2.** (A) Intention-to-treat survival and (B) cumulative incidence of HCC recurrence or progression from listing (N = 376).