

Supplemental table 1: Scoring criteria of the AAPR-CLIP and CLIP staging systems.

Staging system	Variables	0	1	2
Both	Tumour morphology	Uninodular & extension $\leq 50\%$	Multinodular & extension $\leq 50\%$	Massive & extension $> 50\%$
	Portal vein tumour thrombus	No	Yes	--
	AFP, ng/mL	< 400	≥ 400	--
CLIP	Child-Pugh grade	A	B	C
AAPR-CLIP	AAPR	> 0.439	≤ 0.439	

CLIP: The Cancer of the Liver Italian Program; AAPR: albumin-to-alkaline phosphatase ratio;

AFP: alpha fetoprotein.

Supplemental table 2: Pairwise comparison of receiver operating characteristic curves predicting overall survival among the 372 HCC patients treated with TACE in the training cohort.

Survival	System 1	System 2	Difference	P value
3-month	AAPR-TNM	TNM	0.064	< 0.001
	CLIP	TNM	0.077	0.090
	AAPR-CLIP	TNM	0.110	0.012
	AAPR-TNM	CLIP	0.012	0.743
	AAPR-CLIP	AAPR-TNM	0.045	0.189
	AAPR-CLIP	CLIP	0.033	0.021
	AAPR-TNM	TNM	0.047	0.002
	CLIP	TNM	0.076	0.017
	AAPR-CLIP	TNM	0.101	0.001
	AAPR-TNM	CLIP	0.028	0.337
6-month	AAPR-CLIP	AAPR-TNM	0.054	0.040
	AAPR-CLIP	CLIP	0.025	0.021
	AAPR-TNM	TNM	0.058	<0.001
	CLIP	TNM	0.034	0.217
	AAPR-CLIP	TNM	0.068	0.012
	AAPR-TNM	CLIP	0.012	0.629
	AAPR-CLIP	AAPR-TNM	0.010	0.683
	AAPR-CLIP	CLIP	0.033	0.002
	AAPR-TNM	TNM	0.061	< 0.001
	CLIP	TNM	0.017	0.533
1-year	AAPR-CLIP	TNM	0.041	0.117
	AAPR-TNM	CLIP	0.044	0.091
	AAPR-CLIP	AAPR-TNM	0.019	0.383
	AAPR-CLIP	CLIP	0.025	0.015
2-year				

CLIP: The Cancer of the Liver Italian Program; TNM: tumour-node-metastasis; AAPR: albumin-to-alkaline phosphatase ratio.