Hepatocellular carcinoma decreases the chance of successful hepatitis C virus therapy with direct-acting antivirals

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Table S1. Characteristics of HCV+ Patients with Cirrhosis at time of DAA Initiation

Characteristics	Non-HCC (n=220)	HCC Active Tumor (n=59)	HCC nonactive tumor (n=18)	P Value*
Age, mean, years	60 ± 8.8	64 ± 7.1	64 ± 7.7	0.01
Male, no. (%)	139 (63)	48 (81)	10 (56)	0.02
Race/Ethnicity, no. (%)				
Caucasian	133 (64)	42 (71)	10 (56)	0.06
African American	33 (16)	8 (14)	4 (22)	
Hispanic	32 (15)	8 (14)	1 (6)	
Other	22 (10)	1 (1)	3 (16)	
BMI (kg/m^2), mean	29 ± 5.2	28 ± 5	27 ± 3.4	0.09
Former Alcohol Use, no. (%)	52 (24)	22 (37)	1 (6)	0.01
Calculated MELD	11 ± 4.2	10 ± 2.9	10 ± 4.2	0.16
Child Turcotte-Pugh Class, no. (%)				P=0.76†
A	143 (65)	39 (67)	13 (72)	
B	75 (34)	18 (31)	5 (28)	
C	2 (0.7)	1 (0.3)	0 (0)	
Ascites, no. (%)	69 (31)	15 (25)	3 (17)	0.32
Hepatic Encephalopathy, no. (%)	52 (24)	9 (15)	3 (17)	0.33
AFP (ng/mL)	23 ± 46	74 ± 158.6	29 ± 29.7	0.0002
Creatinine (mg/dL)	1.05 ± 1.43	0.88 ± 0.25	0.87 ± 0.26	0.58
Total Bilirubin (mg/dL)	1.52 ± 1.17	1.25 ± 0.68	1.08 ± 0.55	0.78
Albumin (g/dL)	3.57 ± 0.65	3.50 ± 0.57	3.53 ± 0.63	0.73
INR	1.23 ± 0.31	1.21 ± 0.22	1.33 ± 0.68	0.43
AST (units/L)	81 ± 49	93 ± 83.8	87 ± 51.7	0.33
ALT (units/L)	72 ± 53.4	86 ± 110.8	78 ± 55.4	0.38
Platelets (μL)	124 ± 90.4	120 ± 77.6	119 ± 55.5	0.92
Sodium (mmol/L)	137 ± 2.87	138 ± 3.09	137 ± 2.85	0.13
HBsAg present, no. (%)	3 (1)	1 (2)	0 (0)	0.85
HBcIgG present, no. (%)	45 (23)	21 (39)	7 (44)	0.02
Log HCV viral load	13.3 ± 2.1	13.0 ± 2.4	13.2 ± 1.3	0.65

Treatment Experienced, no. (%)	133 (60)	27 (46)	14 (78)	0.03
HCV Genotype				0.15
1	189 (86)	51 (86)	14 (78)	
2	12 (5)	0 (0)	2 (11)	
3	16 (7)	8 (14)	2 (11)	
Other	3 (1)	0 (0)	0 (0)	
Treatment Regimen (%)				
SOF/SIM 12 weeks	113 (51)	19 (32)	10 (56)	n/a
SOF/LDV 12 weeks	26 (12)	18 (31)	1 (6)	
SOF/LDV 24 weeks	41 (19)	6 (10)	3 (17)	
SOF/RBV	29 (13)	7 (12)	0 (0)	
SOF/LDV/RBV	3 (1)	6 (10)	3 (17)	
SOF/SIM 24 weeks	3 (1)	2 (4)	0 (0)	
3D/RBV	3 (1)	0 (0)	0 (0)	
3D	1 (0.5)	0 (0)	0 (0)	
Treatment Classification* (%)				
Inadequate	144 (65)	26 (44)	14 (78)	0.004
Adequate	76 (35)	33 (56)	4 (22)	
Treatment Failure (%)	32 (15)	27 (46)	0 (0)	P<0.0001

*Treatment classified as inadequate or adequate based on current HCV treatment standards. Inadequate treatment was defined as simeprevir/sofosbuvir 12 weeks or sofosbuvir/ledipasivir 12 weeks in treatment-experienced patients or sofosbuvir/ribavirin regimens.

**Not enough power to generate a p value

† Comparisons between Child's A versus Child's B or C

Table S2. Multivariable Predictors of DAA Treatment Failure Among HCV+ Patients with Cirrhosis

Covariate	Odds Ratio	95% Confidence Interval	P Value
Age (per year)	0.99	0.95-1.03	0.62
Male Gender	1.28	0.59-2.74	0.53
White Race	0.50	0.17-1.47	0.21
Hispanic Ethnicity	2.16	0.59-7.82	0.24
Childs class (A versus B and C)	1.26	0.62-2.59	0.52
Platelets (per 1 µL)	1.00	0.99-1.00	0.16
Genotype 3 (versus 1 or 4)	1.65	0.60-4.57	0.33
HbCIgG Present	0.59	0.26-1.33	0.20
Inadequate Regimen	2.90	1.27-6.63	0.01
Active tumor	5.80	2.55-13.20	<0.001

N of final multivariate model = X. 27 patients are excluded as no patient with inactive tumor (n=18) or genotype 2 (n=9) failed treatment

Abbreviations: HbCIgG, Hepatitis B Core IgG;

Table S3. Multivariate Predictors of DAA Treatment Failure in the Entire Population, Excluding Genotype 3

Covariate	Odds Ratio	95% Confidence Interval	P Value
Age (per year)	0.99	0.95-1.03	0.75
Male Gender	1.38	0.63-3.05	0.42
White Race	0.78	0.30-2.03	0.61
Hispanic Ethnicity	1.40	0.44-4.41	0.57
Childs class (A versus B and C)	1.46	0.71-3.00	0.31
Platelets (per 1 µL)	0.99	0.99-1.00	0.07
Genotype 4 (versus 1)	1.64	0.15-17.96	0.68
HbCIgG Present	0.64	0.30-1.35	0.24
Inadequate Regimen*	2.44	1.10-5.37	0.03
Active Tumor	7.38	3.26-16.72	<0.001

Abbreviations: HbCIgG, Hepatitis B Core IgG

Patients with Genotype 2 are excluded from the model as there were no Genotype 2 treatment failures.

*Treatment classified as inadequate or adequate based on current HCV treatment standards. Inadequate treatment was defined as simeprevir/sofosbuvir 12 weeks or sofosbuvir/ledipasivir 12 weeks in treatment-experienced patients or sofosbuvir/ribavirin regimens.