

SUPPLEMENTARY APPENDIX

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Title: Diagnostic Accuracy and Cost-Effectiveness of the CAR-OLT Score in Predicting Cardiac Risk for Liver Transplantation
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Table S1. Characteristics of patients

Variable	Entire cohort (n=342)
Mean age (years)	57.5
Smokers: active	27.8%
Past	31.9%
Blood group: ZERO	42.6%
A	37.2%
B	14.9%
AB	5.3%
Obesity	22.2%
Mean Body Mass Index (BMI)	26.6
Alcoholic liver disease	50.9%
Hepatitis C virus	28.4%
Hepatitis B virus	23.4%
Metabolic dysfunction-Associated SteatoHepatitis (MASH)	22.5%
Autoimmune hepatitis	7.3%
Other etiologies	6.4%
Portal vein thrombosis	17.8%
Mean MELD at listing	16.3
Mean MELD at transplant	18.8
TIPS	8.5%
Hypercholesterolemia	10.5%
CAD familiarità	38.6%
CAD	15.5%
Carotid artery stenosis	9.6%
Previous TIA/stroke	2.9%
PAOD	7.9%
Chronic kidney disease	13.5%
Renal Replaced Therapy	1.7%
Chronic Obstructive Pulmonary Disease	19.9%
Antiplatelet therapy	9.5%
Anticoagulant therapy	9.5%
Beta-blockers therapy	52.8%
ACE inhibitors/sartans therapy	8.6%

Statins therapy	7.7%
Metformin therapy	13.1%
Insulin therapy	22.8%

Abbreviations: ACE= Angiotensin Converting Enzyme; CAD= Coronary artery disease; MELD= Model for End-stage Liver Disease; NS= Not Significant; PAOD= Peripheral Artery Obstructive Disease; TIA= Transient Ischemic Attack; TIPS = Transjugular Intrahepatic Portosystemic Shunt;

Table S2. Noninvasive cardiac work-up

<u>Variable</u>	<u>Entire cohort (n=342)</u>
Echocardiogram	
mean Ejection Fraction	63.1%
Grade 1 Diastolic dysfunction	40.0%
Grade 2 Diastolic dysfunction	14.9%
mean PAPS (mmHg)	30.3
PAPS \geq 40 mmHg	26 (7.6%)
mean TAPSE (mm)	24.8
Exercise electrocardiogram	
Tests performed	54 (15.8%)
Valid Tests	44 (81.5%)
Result: negative	35 (79.5%)
doubtful	7 (15.9%)
positive	2 (4.5%)
Myocardial perfusion imaging	
Tests performed	206 (61.1%)
Stress type: exercise	140 (68.0%)
dipyridamole	59 (28.6%)
adenosine	7 (3.4%)
Result: negative	140 (67.3%)
doubtful	17 (8.2%)
positive	51 (24.5%)
Dobutamine Stress echocardiogram	
Tests performed	14 (4.1%)

Result: negative	13 (92.9%)
doubtful	1 (7.1%)
positive	0
Coronary computed tomography angiography	
Tests performed	34 (9.9%)
Result: negative	18 (52.9%)
non-significant stenosis	12 (35.5%)
significant stenosis	4 (11.8%)

Table S3. Predictors of cardiac contraindication to LT listing.

	Univariate analysis		Multivariable analysis	
	OR (95% I.C.)	p	OR (95% I.C.)	p
Sex (female)	0.82 (0.27-2.44)	0.72		
Age	1.11 (1.03 – 1.19)	0.004	0.95 (0.83 – 1.08)	0.42
Body Mass Index	1.05 (0.95 – 1.17)	0.34		
MELD at listing	0.99 (0.85 – 1.15)	0.89		
Hepatocellular carcinoma	0.46 (0.19 – 1.11)	0.08		
Hepatitis C virus	0.47 (0.17 – 1.29)	0.14		
Alcoholic Liver Disease	1.56 (0.68 – 3.60)	0.29		
Hepatitis B virus	0.16 (0.02 – 1.19)	0.07		
MASH	1.38 (0.50 – 3.80)	0.53		
Race white	Reference			
Race black	2.09 (0.26 – 16.75)	0.45		
Active workers	0.54 (0.22 – 1.34)	0.54		
Educational level degree	0.83 (0.10 – 6.37)	0.86		
Atrial fibrillation	17.88 (5.99 – 53.29)	<0.001	22.73 (1.43 – 361.55)	0.03
CAD familiarità	1.35 (0.27 – 6.82)	0.71		
Pulmonary hypertension	3.16 (1.00 – 9.99)	0.05	3.55 (0.63 – 19.94)	0.15
Diabetes mellitus	2.71 (1.17 – 6.26)	0.02	0.76 (0.12 – 4.95)	0.78
Arterial hypertension	4.45 (1.85 – 10.68)	<0.01	0.25 (0.03 – 1.94)	0.18
Heart failure	43.71 (1.07 – 126.81)	<0.001	56.01 (6.18 – 507.63)	0.001
Hypercholesterolemia	2.48 (0.89 – 6.92)	0.08		
CAD	26.52 (10.63 – 66.20)	<0.001	67.03 (8.48 – 529.33)	0.001
Significant CAD				

Previous TIA/ictus	1.97 (0.24 – 15.63)	0.52		
Carotid artery stenosis	0.90 (0.20 – 4.01)	0.89		
PAOD	4.25 (1.35 – 13.34)	0.01	0.65 (0.04 – 9.61)	0.76
Chronic kidney disease	3.03 (1.24 – 7.34)	0.01	2.50 (0.44 – 13.92)	0.29
COPD	3.03 (1.24 – 7.35)	0.01	2.96 (0.39 – 22.07)	0.29
Never smokers	Reference			
Past smokers	0.80 (0.30 – 2.16)	0.67		
Active smokers	0.84 (0.30 – 2.36)	0.74		

Abbreviations: COPD=Chronic obstructive pulmonary disease; CAD= Coronary artery disease; MELD= Model for End-stage Liver Disease; MASH=Metabolic dysfunction-Associated SteatoHepatitis; PAOD = Peripheral artery obstructive disease; TIA= Transient Ischemic Attack;