Supplementary Table 1: CPT-4 and ICD-10 codes used for initial eligibility screening

Renal Replacement Therapy	CPT-4 Code
Hemodialysis procedure with single physician evaluation	90935
Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis prescription	90937
Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single physician evaluation	90945
Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated physician evaluations, with or without substantial revision of dialysis prescription	90947
Liver Disease	**ICD-10 Code**
Fibrosis and cirrhosis of liver	K74.XX
Alcoholic cirrhosis of liver	K70.3X
Cardiac cirrhosis	K76.1X
Hereditary hemochromatosis	E83.110
Hepatorenal syndrome	K76.7X

Key: X (includes all sub-codes), CPT (Current Procedural Terminology), ICD (International Classification of Diseases). ICD-10 codes also include related codes previous used in ICD-9.

Supplementary Table 2: Comparison between 341 non-listed patients treated with renal replacement therapy and 159 patients not offered renal replacement therapy for acute kidney injury and cirrhosis

	Treated with RRT (n = 341)	Not Treated with RRT (n = 159)	P value
Age (years)	58 [57, 59]	61 [59, 63]	0.02
Female sex (%)	111 (33%)	39 (25%)	0.07
White race (%)	257 (75%)	117 (74%)	0.67
Non-Hispanic ethnicity (%)	24 (7%)	12 (8%)	0.84
Co-morbidities (%)			
Diabetes mellitus	126 (37%)	52 (33%)	0.36
Coronary artery disease	98 (29%)	48 (30%)	0.74
Chronic kidney disease	54 (16%)	33 (21%)	0.18
Hypertension	187 (55%)	99 (62%)	0.12
Reason for admission (%)			<0.001
Complications of cirrhosis	96 (28%)	64 (40%)	
Acute kidney injury	43 (13%)	33 (21%)	
Infection	126 (37%)	31 (20%)	
Other	76 (22%)	31 (20%)	
Other hospitalization characteristics (%)			
Sepsis	206 (60%)	83 (53%)	0.10
Admission/transfer to intensive care unit	287 (84%)	90 (57%)	<0.001
Intravenous vasopressor use	260 (76%)	84 (53%)	<0.001
Mechanical ventilation	197 (39%)	48 (30%)	<0.001
Length of stay (days)	21 [19, 23]	12 [10, 13]	<0.001
Etiology of cirrhosis (%)*			0.49
Alcohol	134 (39%)	62 (39%)	
Hepatitis C	59 (17%)	27 (17%)	
Non-alcoholic steatohepatitis	21 (6%)	12 (8%)	
Multifactorial	45 (13%)	29 (18%)	
Other	79 (23%)	29 (18%)	
Prior complications of liver disease (%)			
Ascites	263 (77%)	139 (87%)	0.007
Encephalopathy	186 (55%)	102 (64%)	0.04
Gastrointestinal bleeding	215 (63%)	108 (68%)	0.29
Spontaneous bacterial peritonitis	61 (18%)	41 (26%)	0.04
Hepatocellular carcinoma	29 (9%)	40 (25%)	<0.001
MELD score	34 [33, 35]	40 [39, 42]	<0.001
CLIF-C ACLF score	60 [59, 62]	63 [61, 65]	0.03
Etiology of acute kidney injury (%)			<0.001
Hepatorenal syndrome (HRS)	56 (16%)	68 (43%)	
Acute tubular necrosis (ATN)	285 (84%)	91 (57%)	
Laboratory values			
Sodium (mEq/L)	136 [135, 1136]	135 [134, 136]	0.55
Blood urea nitrogen (mg/dL)	65 [61, 69]	91 [85, 96]	<0.001
Creatinine (mg/dL)	4.3 [4.1, 4.5]	5.6 [5.3, 5.8]	<0.001
White blood count (K/uL)	14.8 [13.7, 15.9]	14.9 [13.6, 16.1]	0.93

Hemoglobin (g/dL)	9.3 [9.2, 9.5]	9.7 [9.4, 10.0]	0.03
Platelets (K/uL)	102 [95, 110]	123 [110, 135]	0.01
Albumin (g/dL)**	2.9 [2.8, 3.0]	3.0 [2.9, 3.1]	0.28
International normalized ratio (INR)	2.1 [2.0, 2.2]	2.7 [2.4, 2.9]	<0.001
Total bilirubin (mg/dL)	12 [10, 13]	16 [14, 19]	<0.001
Aspartate aminotransferase (U/L)***	577 [390, 764]	407 [183, 631]	0.25
Alanine aminotransferase (U/L)***	189 [138, 241]	125 [80, 171]	0.07
Alkaline phosphatase (U/L)***	162 [145, 178]	145 [129, 161]	0.14
Mean survival (days)****	46 [39, 53]	6 [4, 8]	<0.001

Subjects not treated with renal replacement therapy were subjects with cirrhosis, severe acute kidney injury (serum creatinine >4 mg/dL) with documented discussion that renal replacement therapy was not offered due to patient/provider decision.
Key: RRT (renal replacement therapy), MELD (Model for End Stage Liver Disease), CLIF-C ACLF (CLIF Consortium Organ Failure Acute on Chronic Liver Failure Score)
Cells represent N (percent) for categorical variables and mean [95% confidence interval] for continuous variables
* n = 2 missing in the treated group
** n = 1 missing in the treated group
***n = 3 missing in the treated group
**** Mean survival from initiation of renal replacement in the treated group and from the date of peak creatinine in the not-treated group.