Supplementary Table 1 Child-Turcotte-Pugh score

Points	1	2	3
Ascites	Absent	Slight	Moderate
Serum Bilirubin(mg/dl)	< 2	2-3	>3
Serum albumin(g/dl)	>3.5	2.8-3.5	< 2.8
PT ratio or INR	< 4 < 1.7	4-6 1.7-2.3	>6 > 2.3
HE	None	Grade I-II	Grade III-IV

PT-Prothrombin time; INR-International Normalization Ratio; HE-Hepatic encephalopathy.

Supplementary Table 2 Machine learning techniques

Learning type	Model building	Examples
Supervised	Algorithms or models learn from labelled data(task-driven approach)	Classification, Regression
Unsupervised	Algorithms or models learn from unlabeled data(Data-driven approach)	Clustering, associations, dimentionality reduction
Semi-supervised	Models are built using combined data(labeled+ unlabeled)	Classification, clustering
Reinforcement	Models are based on reward or penalty(environment-driven approach)	Classification, control

Various machine learning techniques, how they are built and examples.

Supplementary Table 3 Pre-allocation survival outcomes following liver transplantation score

Risk factor	Points allotted
Age > 60	4
BMI > 35	2
One previous transplant	9
Two previous transplants	14
Previous abdominal surgery	2
Albumin < 2g/dL	2
Dialysis prior to transplantation	3
Intensive care unit pre-transplant	6
Admitted to hospital pre-transplant	3
MELD score > 30	4
Life support pre-transplant	9
Encephalopathy	2
Portal vein thrombosis	5
Ascites pre-transplant	3

BMI: Body mass index; MELD: Model for End stage Liver Disease.

Supplementary Table 4 Score to predict survival outcomes following liver transplantation score

Risk factor	Points allotted
p-SOFT score	Total from table 1
Portal bleed, 48 h pre-transplant	6
Donor age 10-20 yr	-2
Donor age > 60 yr	3
Donor cause of death from cerebral vascular accident	2
Donor serum creatinine >1.5 mg/dl	2
National allocation	2
Cold ischemia time 0-6hrs	-3

Supplementary Table 5 Balance of risk

Parameter	Category	Points allotted
MELD score points	6-15	0
	>15-25	5
	>25-35	10
	>35	14
Re-transplantation	No	0
	Yes	4
Recipient life support	No	0
	Yes	3
Recipient age in years	≤ 40	0
	>40-60	1
	>60	3
Cold ischemia time in hours	0-6	0
	>6-12	1
	>12	2
Donor age in years	≤ 40	0
	>40	1

MELD: Model for End Stage Liver Disease.

Supplementary Table 6 Chronic liver failure-sequential organ failure assessment score

Points	0	1	2
Liver Bilirubin(mg/dl)	< 1.2	≥1.2- < 2.0	≥2.0- < 6.0
Renal creatinine(mg/dl)	< 1.2	≥1.2- < 2.0	≥ 2.0- < 3.5
Neurological HE grade	-	1	2
Haematological INR	< 1.1	≥ 1.1- < 1.25	≥ 1.25- < 1.5
Circulation MAP(mmHg)	≥ 70	< 70	Dopamine ≤ 5 or Dobutamine or Terlipressin
Respiratory PaO2/FiO2 or SpO2/FiO2	➢ 400; >512	➢ 300 -≤ 400;> 357- ≤ 512	➢ 200 -≤ 300; > 214 - ≤ 357

FORMULA

FORMULA 1 (CLIF-C ACLFS):

CLIF-C ACLF=10 x (0.33 x CLIF-OFs +0.04 x Age + 0.63 x ln [(WBC count)-2] (1)

FORMULA 2 (ABIC score)

ABIC score=(Age x0.1)+(Serum bilirubin x 0.08)+(serum creatinine x0.3)+(INR x0.8),where age is in years, bilirubin in mg/dl and creatinine in mg/dl. (5)

Interpretation:

ABIC cutoff values of 6.71 and 9 were identified as key values in estimating survival rates at 90 days and 1 year.Based on this,the following risk groups were created;ABIC score < 6.71:LOW risk;ABIC score 6.71- < 9:INTERMEDIATE risk;ABIC score >9:High risk

Survival rates at 90 days:Low risk:100%;Intermediate risk:70%;High risk:25%

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Conilyn Llander Llander Ocampo
Global Open Research Support Specialist
Author Service

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