

**Table S1 Proportion of Missing Values in Feature Variables**

Column	MissingCount	MissingPercentage
ALT	0	0
AST	0	0
WBC	84	9.14037
IBIL	0	0
TBIL	0	0
ALP	0	0
TP	0	0
LDH	0	0
Cr	0	0
UA	0	0
BUN	0	0
GGT	0	0
CK	0	0
PLT	0	0
RBC	0	0
ApoA	10	1.088139
ApoB	10	1.088139
HDL	10	1.088139
LDL	10	1.088139
D.D	56	6.09358
Na	0	0
K	0	0
CL	0	0
Ca	0	0
FIB	31	3.373232
PT	30	3.264418
PT1	30	3.264418
PCT	0	0
IL.6	0	0
P	0	0
TG	10	1.088139
LYM	0	0
NE	0	0
MONO	0	0
DBIL	0	0
Hb	0	0
INR	30	3.264418
TT	0	0
APTT	0	0

**Table S2 Balance test of training set and test set for thrombocytopenia risk research samples**

Features	Overall (n=919)	Training set (n=643)	Test set (n=276)	P-value
Age	71.00(63.00, 79.00)	71.00(63.00, 79.50)	70.00(61.00, 79.00)	0.172
BMI (kg/m <sup>2</sup> )	21.78 (19.83, 23.42)	21.80 (19.83, 23.44)	21.66 (19.92, 23.26)	0.447
Treatment sessions/day	7.97 (5.09, 11.99)	8.07 (5.19, 12.00)	7.66 (5.04, 11.92)	0.272
ICU admission	414 (45.05)	296 (46.03)	118 (42.75)	0.360
Gender in mechanical assisted ventilation [n (%)]	285 (31.01)	210 (32.66)	75 (27.17)	0.099
Male	708 (77.04)	492 (76.52)	216 (78.26)	0.564
Female	211 (22.96)	151 (23.48)	60 (21.74)	
Maintenance dose [n (%)]				0.073
≤100 mg/d	655 (71.27)	447 (69.52)	208 (75.36)	
≥200 mg/d	264 (28.73)	196 (30.48)	68 (24.64)	
Comorbidities [n (%)]				
Hypertension	337 (36.67)	235 (36.55)	102 (36.96)	0.906
Glycuresis	221 (24.05)	156 (24.26)	65 (23.55)	0.817
Coronary disease	108 (11.75)	76 (11.82)	32 (11.59)	0.923
Chronic obstructive pulmonary disease	176 (19.15)	120 (18.66)	56 (20.29)	0.565
Therionia	176 (19.15)	120 (18.66)	56 (20.29)	0.565
Personal history [n (%)]	173 (18.82)	121 (18.82)	52 (18.84)	0.994
Alcohol consumption history	18 (1.96)	12 (1.87)	6 (2.17)	0.758
Smoking history	49 (5.33)	32 (4.98)	17 (6.16)	0.464
Concomitant medications [n (%)]				
Cefoperazone and Sulbactam	293 (31.88)	209 (32.50)	84 (30.43)	0.537
Meropenem	269 (29.27)	182 (28.30)	87 (31.52)	0.326
Piperacillin-Tazobactam	100 (10.88)	70 (10.89)	30 (10.87)	0.994
Infection site [n (%)]				
Lungs	727 (79.11)	505 (78.54)	222 (80.43)	0.517
Abdominal cavity	116 (12.62)	79 (12.29)	37 (13.41)	0.639
Skin	37 (4.03)	27 (4.20)	10 (3.62)	0.684
Detected bacteria [n (%)]				
Acinetobacter baumannii	578 (62.89)	402 (62.52)	176 (63.77)	0.719
Klebsiella pneumoniae	329 (35.80)	227 (35.30)	102 (36.96)	0.632
Enterococcus faecalis	30 (3.26)	22 (3.42)	8 (2.90)	0.683
E. coli	65 (7.07)	44 (6.84)	21 (7.61)	0.678
Staphylococcus aureus-associated liver disease	57 (6.20)	39 (6.07)	18 (6.52)	0.793
	138 (15.02)	105 (16.33)	33 (11.96)	0.089

**Table S2 Balance test of training set and test set for thrombocytopenia risk research samples**

Features	Overall (n=919)	Training set (n=643)	Test set (n=276)	P-value
ALT(U·L <sup>-1</sup> )	16.20(10.40, 29.95)	15.20(10.10, 29.05)	17.70(10.97, 32.48)	0.061
AST(U·L <sup>-1</sup> )	23.70 (16.50, 36.70)	23.60 (16.55, 34.95)	23.80 (16.50, 39.38)	0.588
ALP(U·L <sup>-1</sup> )	81.00 (64.00, 108.50)	79.30 (64.00, 106.55)	84.00 (62.90, 110.55)	0.275
GGT(U·L <sup>-1</sup> )	35.50 (22.00, 65.00)	34.00 (22.00, 66.50)	38.25 (23.95, 65.00)	0.149
TBIL/ $\mu$ mol·L <sup>-1</sup>	8.70 (6.10, 13.30)	8.80 (6.00, 13.45)	8.65 (6.18, 13.00)	0.849
IBIL/ $\mu$ mol·L <sup>-1</sup>	5.30 (3.60, 8.20)	5.30 (3.50, 8.20)	5.20 (3.60, 7.90)	0.915
DBIL/ $\mu$ mol·L <sup>-1</sup>	3.10 (1.90, 5.10)	3.10 (1.90, 5.10)	3.05 (1.80, 5.10)	0.656
TP/g·L <sup>-1</sup>	65.20 (59.20, 71.40)	65.20 (59.60, 71.70)	65.20 (57.80, 70.93)	0.454
Cr/ $\mu$ mol·L <sup>-1</sup>	71.00 (54.00, 99.67)	71.80 (54.00, 102.30)	68.00 (53.75, 92.25)	0.255
UA/ $\mu$ mol·L <sup>-1</sup>	284.00 (196.00, 393.80)	288.00 (200.00, 399.00)	271.05 (191.60, 384.65)	0.264
BUN/mmol·L <sup>-1</sup>	5.80 (4.10, 8.77)	5.80 (4.07, 9.10)	5.83 (4.27, 8.25)	0.557
CK(U·L <sup>-1</sup> )	73.00 (42.00, 167.00)	69.70 (42.00, 164.00)	74.85 (45.53, 172.00)	0.558
ApoA/g·L <sup>-1</sup>	0.72 (0.53, 0.91)	0.72 (0.52, 0.90)	0.73 (0.58, 0.91)	0.324
ApoB/g·L <sup>-1</sup>	0.59 (0.40, 0.76)	0.58 (0.39, 0.75)	0.61 (0.44, 0.78)	0.077
HDL/mmol·L <sup>-1</sup>	0.93 (0.68, 1.22)	0.93 (0.69, 1.22)	0.92 (0.68, 1.21)	0.917
WBC/10 <sup>9</sup> ·L <sup>-1</sup>	9.96 (7.49, 13.20)	9.93 (7.41, 13.11)	10.12 (7.68, 13.33)	0.215
LDH(U·L <sup>-1</sup> )	237.10 (187.00, 319.50)	238.90 (187.00, 317.00)	231.50 (187.00, 325.95)	0.999
PLT/10 <sup>9</sup> ·L <sup>-1</sup>	223.00 (178.00, 288.00)	221.00 (176.00, 286.00)	229.00 (183.75, 288.00)	0.218
RBC/10 <sup>12</sup> ·L <sup>-1</sup>	3.91 (3.34, 4.41)	3.88 (3.34, 4.40)	3.95 (3.39, 4.41)	0.443
D-D/mg·L <sup>-1</sup>	2.02 (0.92, 4.66)	2.06 (0.89, 4.71)	1.98 (0.98, 4.25)	0.715
FIB/g·L <sup>-1</sup>	4.64 (3.30, 6.25)	4.74 (3.36, 6.27)	4.63 (3.24, 6.01)	0.439
PT/s	12.00 (10.90, 13.20)	12.00 (10.90, 13.30)	11.80 (10.90, 13.10)	0.140
APTT/s	29.70 (25.40, 36.15)	30.00 (25.60, 36.75)	28.71 (25.38, 34.55)	0.095
PCT/ng·mL <sup>-1</sup>	0.59 (0.19, 2.97)	0.66 (0.19, 3.04)	0.49 (0.19, 2.48)	0.307
IL-6/pg·mL <sup>-1</sup>	142.50 (68.78, 250.76)	143.58 (69.98, 255.25)	134.62 (67.75, 225.94)	0.348
PT%	89.80 (80.29, 99.10)	89.00 (79.50, 98.60)	91.65 (82.05, 99.60)	0.070
TG/mmol·L <sup>-1</sup>	0.99 (0.72, 1.37)	0.98 (0.71, 1.37)	1.06 (0.72, 1.38)	0.229
LY/10 <sup>9</sup> ·L <sup>-1</sup>	0.83 (0.51, 1.29)	0.84 (0.49, 1.30)	0.79 (0.53, 1.26)	0.816
NE/10 <sup>9</sup> ·L <sup>-1</sup>	8.92 (6.40, 12.19)	8.93 (6.40, 12.25)	8.88 (6.43, 11.85)	0.949
MONO/%	0.50 (0.31, 0.73)	0.51 (0.33, 0.74)	0.48 (0.30, 0.73)	0.389

**Table S2 Balance test of training set and test set for thrombocytopenia risk research samples**

Features	Overall (n=919)	Training set (n=643)	Test set (n=276)	P-value
HGB/g·L <sup>-1</sup>	113.00(91.00, 131.00)	114.00(92.00, 132.00)	113.00(90.00, 128.00)	0.504
INR	1.04 (0.95, 1.15)	1.05 (0.95, 1.16)	1.03 (0.95, 1.14)	0.119
TT/s	17.80 (16.50, 19.20)	17.80 (16.40, 19.13)	17.90 (16.70, 19.30)	0.110
Na/mmol·L <sup>-1</sup>	135.30 (131.00, 139.20)	135.20 (131.00, 139.30)	135.30 (131.00, 139.03)	0.864
K/mmol·L <sup>-1</sup>	3.74 (3.38, 4.17)	3.73 (3.37, 4.14)	3.78 (3.41, 4.18)	0.346
Cl <sup>-</sup> /mmol·L <sup>-1</sup>	99.60 (95.70, 104.35)	100.00 (95.85, 104.65)	99.05 (95.45, 103.40)	0.169
Ca <sup>2+</sup> /mmol·L <sup>-1</sup>	2.14 (2.02, 2.27)	2.14 (2.02, 2.27)	2.12 (2.02, 2.25)	0.169
P/mmol·L <sup>-1</sup>	0.99 (0.77, 1.21)	0.98 (0.76, 1.20)	1.00 (0.79, 1.23)	0.252