

Supplementary Table 1 Profile of mean RRI according to the clinical characteristics of study participants (*n* = 200)

| Parameters | mean \pm SD of RRI | <i>P</i> value |
|--|--|-----------------------|
| Age ^a | | |
| < 50 years | 0.679 \pm 0.0943 | 0.957 |
| \geq 50 years | 0.679 \pm 0.0928 | |
| Gender ^a | | |
| Male | 0.683 \pm 0.0942 | 0.227 |
| Female | 0.663 \pm 0.0891 | |
| Comorbidity ^a | | |
| Yes | 0.661 \pm 0.1002 | 0.169 |
| No | 0.683 \pm 0.0912 | |
| BMI ^a | | |
| Underweight/Normal | 0.682 \pm 0.0915 | 0.305 |
| Overweight/Obese | 0.662 \pm 0.1031 | |
| Abdominal circumference (cm) | | |
| < 100 cm | 0.634 \pm 0.0891 | < 0.001* |
| \geq 100 cm | 0.716 \pm 0.1031 | |
| Ascites ^a | | |
| Yes | 0.708 \pm 0.0748 | < 0.001* |
| No | 0.585 \pm 0.0796 | |
| Ascites Grade ^a (<i>n</i> = 153) | | |
| II | 0.685 \pm 0.0759 | < 0.001* |
| III | 0.727 \pm 0.0686 | |
| GI Bleed ^a | | |
| Yes | 0.585 \pm 0.0764 | < 0.001* |
| No | 0.740 \pm 0.0739 | |
| ACLF Grade ^d (<i>n</i> = 27) | | |
| I | 0.767 \pm 0.0361 | 0.928 |
| II | 0.770 \pm 0.0408 | |
| III | 0.775 \pm 0.0384 | |

| | | |
|--|----------------|----------|
| Etiology of cirrhosis ^c | | |
| Alcohol | 0.690 ± 0.0900 | 0.234 |
| NAFLD | 0.665 ± 0.0948 | |
| Viral | 0.690 ± 0.0799 | |
| Others | 0.650 ± 0.1175 | |
| AKI ^a | | |
| No | 0.602 ± 0.0802 | < 0.001* |
| Yes | 0.721 ± 0.0699 | |
| AKI type ^c (<i>n</i> = 129) | | |
| Pre-renal AKI | 0.632 ± 0.0759 | < 0.001* |
| ATN-AKI | 0.800 ± 0.0238 | |
| HRS-AKI | 0.736 ± 0.0338 | |
| AKI stage ^c (<i>n</i> = 129) | | |
| I | 0.705 ± 0.0762 | < 0.001* |
| II | 0.716 ± 0.0681 | |
| III | 0.756 ± 0.0480 | |
| CTP Class ^c | | |
| A | 0.563 ± 0.0839 | < 0.001* |
| B | 0.654 ± 0.0836 | |
| C | 0.718 ± 0.0738 | |
| MELD-Na Score ^a | | |
| < 21 | 0.651 ± 0.0967 | < 0.001* |
| ≥ 21 | 0.700 ± 0.0851 | |
| MAP (mmHg) ^b | | |
| < 70 | 0.784 ± 0.0319 | < 0.001* |
| ≥ 70 | 0.664 ± 0.0895 | |
| Heart Rate (bpm) ^b | | |
| ≤ 100 | 0.667 ± 0.0906 | < 0.001* |
| > 100 | 0.783 ± 0.0328 | |

| Outcome ^b | | |
|----------------------|--------------|----------|
| In hospital Death | 0.74 ± 0.047 | < 0.001* |
| Discharged | 0.64 ± 0.090 | |

^aIndependent sample's *t*-test; ^bMann-Whitney *U* test; ^cOne-way ANOVA; ^dKruskal-Wallis test.

Supplementary Table 2 Predictors of high RRI (> 0.73) in study participants (n = 200)

| Predictor | cOR (95%CI) | <i>P</i> value | aOR (95%CI) | <i>P</i> value |
|----------------|----------------------|----------------|--------------------|----------------|
| Age (in years) | 1.00 (0.97-1.03) | 0.811 | 0.99 (0.96-1.03) | 0.88 |
| Gender | | | | |
| Male | 1.651 (0.79-3.42) | 0.177 | 1.26 (0.49-3.21) | 0.62 |
| Female | 1 | - | 1 | - |
| Sepsis | | | | |
| Present | 6.037 (3.13-11.61) | < 0.001 | 1.97 (0.87-4.46) | 0.10 |
| Absent | 1 | - | 1 | - |
| Ascites Grade | | | | |
| Grade III | 41.78 (9.42-185.18) | < 0.001 | 2.36 (0.29-18.99) | 0.41 |
| Grade II | 14.00 (3.14-62.28) | < 0.001 | 1.312 (0.16-10.20) | 0.79 |
| No Ascites | 1 | - | 1 | - |
| ACLF Grade | | | | |
| Grade III | 4.77 (1.22-18.65) | 0.02 | 0.48 (0.08-2.75) | 0.41 |
| Grade II | 4.17 (1.04-16.73) | 0.04 | 0.64 (0.12-3.29) | 0.60 |
| Grade I | 8.95 (1.02-78.35) | 0.04 | 1.07 (0.09-11.85) | 0.95 |
| No ACLF | 1 | - | 1 | - |
| AKI | | | | |
| Present | 35.81 (10.68-119.99) | < 0.001 | 11.52 (2.12-62.49) | 0.005 |
| Absent | 1 | - | 1 | - |
| MELD-Na | 1.09 (1.04-1.14) | < 0.001 | 1.02 (0.96-1.08) | 0.39 |
| MAP (mmHg) | 0.75 (0.65-0.86) | < 0.001 | 0.86 (0.76-0.98) | 0.02 |

cOR: Crude odds ratio; aOR: Adjusted Odds Ratio; Nagelkaerke R²: 0.365, sepsis includes SBP and cellulitis.

Supplementary Table 3 Predictors of mortality in study participants with AKI (n = 129)

| Predictor | cOR (95%CI) | P value | aOR (95%CI) | P value |
|---------------------|-------------------|----------|-------------------|---------|
| Age (in years) | 1.00 (0.97-1.03) | 0.85 | 1.03 (0.99-1.07) | 0.10 |
| Gender | | | | |
| Male | 0.88 (0.33-2.02) | 0.66 | 0.57 (0.19-1.73) | 0.32 |
| Female | 1 | - | 1 | - |
| ACLF Grade | | | | |
| Grade-III | 3.51 (0.88-14.02) | 0.07 | 2.51 (0.44-14.26) | 0.29 |
| Grade-II | 1.97 (0.52-7.43) | 0.31 | 1.35 (0.25-7.21) | 0.72 |
| Grade-I | 2.63 (0.46-15.05) | 0.27 | 1.25 (0.16-9.29) | 0.82 |
| No ACLF | 1 | - | 1 | - |
| Etiology | | | | |
| Alcohol | 0.50 (0.14-1.73) | 0.27 | 0.51 (0.11-2.21) | 0.37 |
| NAFLD | 0.51 (0.13-1.93) | 0.32 | 0.45 (0.10-2.00) | 0.30 |
| Viral | 0.66 (0.17-0.54) | 0.54 | 0.74 (0.16-3.30) | 0.69 |
| Others [#] | 1 | - | 1 | - |
| MELD-Na | 1.01 (0.97-1.07) | 0.464 | 0.98 (0.92-1.05) | 0.68 |
| MAP | 0.86 (0.78-0.95) | 0.005* | 0.87 (0.77-0.98) | 0.02* |
| Sepsis* | | | | |
| Present | 2.33 (1.15-4.73) | 0.01* | 1.80 (0.74-4.34) | 0.19 |
| Absent | 1 | - | 1 | - |
| RRI | | | | |
| High (> 0.73) | 3.92 (1.85-8.55) | < 0.001* | 3.18 (1.35-7.49) | 0.008* |
| Low (≤ 0.73) | 1 | - | 1 | - |

#Others includes BCS and Cryptogenic cirrhosis; *Sepsis includes those with SBP or cellulitis. cOR: Crude odds ratio; aOR: Adjusted odds ratio; Nagelkaerke R²: 0.219.