**Table S1. KDIGO AKI classification**

|  |  |  |
| --- | --- | --- |
| Stage | Serum creatinine | Urine Output |
| 1 | 1.5-1.9 times baseline OR ≥µmol/ increase | <0.5ml/kg/h for 6-12 hours |
| 2 | 2.0-2.9 times baseline | <0.5ml/kg/h for ≥ 12 hours |
| 3 | ≥3.0 times baseline OR increase in serum creatinine to ≥353.9 µmol/L OR renal replacement therapy | <0.3ml/kg/h for ≥ 24 hours of anuria for ≥ 12 hours |

**Table S2. Baseline characteristics AKI progression**

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristics | No AKI progression (*n*=185 [78.7%]) | AKI progression (*n*=52 [21.3%])  | *p*-value |
| Age (years) | 63 [55, 71] | 65 [50, 70] | 0.785 |
| Gender (% female) | 64 (34.6) | 25 (50.0) | 0.068 |
| BMI (kg/m2) | 22.4 [20.6, 24.9] | 23.7 [20.7, 26.9] | 0.086 |
| baseline creatinine ($µ$mol/L) | 79 [69, 95] | 92 [70, 101] | 0.113 |
| Comorbidities  |  |  |  |
|  CKD (%) | 10 (5.4) | 3 (6.0) | 1.000 |
|  CVD (%) | 20 (10.9) | 9 (18.0) | 0.271 |
|  DM (%) | 33 (17.8) | 11 (22.0) | 0.642 |
|  Malignancy (%) | 16 (8.7) | 3 (6.0) | 0.736 |
| Operation (%) | 121 (65.4) | 33 (66.0) | 1.000 |
| Infection\* (%) | 34 (18.4) | 13 (26.0) | 0.319 |
| Sepsis (%) | 28 (19.2) | 13 (26.0) | 0.384 |
|  SIRS  | 2 [1, 3] | 3 [2, 3] | 0.565 |
|  SOFA | 6 [2, 7] | 7 [5, 9] | **0.001** |
|  qSOFA | 0 [0, 1] | 1 [0, 0] | 0.142 |
| Mechanical ventilation (%) | 127 (6.0) | 46 (92.0) | **0.002** |
| Vital parameters |  |  |  |
|  Heart rate (bpm)  | 80 [70, 92] | 95 [80, 104] | **0.001** |
|  MAP (mmHg) | 85.0 [73.3, 98.0] | 79.8 [69.1, 93.4] | 0.143 |
|  Respiratory rate (resp / min) | 16.0 [14.0, 23.0] | 20.0 [16,0 25.0] | 0.114 |
|  Body temperature (˚C) | 36.1 [35.4, 37.2] | 37.1 [35.4, 37.4] | 0.630 |
| Laboratory values |  |  |  |
|  CRP (mg/L) | 6.90 [2.05, 37.00] | 9.65 [6.45, 70.80] | **0.018** |
|  Leucocytes(10^9/L) | 12.5 [9.3, 16.3] | 13.1 [10.8, 17.9] | 0.274 |
|  Thrombocytes (10^9/L) | 188 [150, 242] | 185 [127, 253] | 0.801 |
|  Bilirubin (umol/L) | 9 [6, 14] | 12 [8, 19] | **0.038** |
|  Albumin (g/L)  | 30 [25, 34] | 28 [24, 33] | 0.084 |
|  Creatinine (µmol/L) | 72 [59, 88] | 91 [72, 121] | **0.001** |
|  Calprotectin (µg/mL)  | 4.33 [2.45, 6.62] | 4.60 [2.64, 8.08] | 0.300 |
|  Thiols (µmol/L) | 256.24 [162.72, 359.70] | 230.49 [116.14, 326.12] | 0.073 |
| APACHE II | 15 [11, 20] | 17 [13, 21] | 0.058 |
| APACHE IV | 46 [34, 66] | 60 [46, 91] | **<0.001** |
| <7 day Mortality (%) | 8 (4.3) | 4 (8.0) | 0.493 |
| <28 day Mortality (%) | 18 (9.7) | 7 (14.0) | 0.542 |

Data are presented as median [IQR] of proportions. P-values were calculated using a two-tailed Mann Whitney U test or Chi-squared test, while significant differences are indicated in bold. \*infection is a confirmed infection. AKI progression is defined as change in KDIGO stage, within 48 hours after ICU admission. The highest KDIGO stage in 48 hours is used. CKD, chronic kidney disease; CVD, cardiovascular disease; DM, diabetes mellitus; SIRS, Systemic Inflammatory Response Syndrome; SOFA, sequential organ failure assessment score; qSOFA, quick SOFA; CPR, Cardiopulmonary resuscitation; MAP, mean arterial pressure; CRP, C-reactive protein; APACHE, Acute Physiology And Chronic Health Evaluation.