**Table S1** Comparison of clinical characteristics among four groups according to the status of AKI and sepsis.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Non-AKI/non-sepsisn = 180 | Non-AKI/sepsisn = 110 | AKI/non-sepsisn = 30 | AKI/sepsisn = 22 | *P* value |
| Age, months | 14.5 [3.0-52.3] | 12.0 [3.0-45.0]\* | 50.0 [25.5-97.3]\*# | 13.5 [3.3-66.5]& | 0.001 |
| Body weight, kg | 10.0 [6.0-17.0] | 5.7 [10.0-15.3]\* | 16.3 [12.4-25.0]\*# | 10.0 [6.8-17.8]& | 0.001 |
| Male, n | 119 (66.1) | 73 (66.4) | 21 (70.0) | 13 (59.1) | 0.876 |
| PRISM III score | 2 [0-6] | 5 [2-12]\* | 9 [4-17]\*# | 11 [5-14]\*# | ＜0.001 |
| MODSa, n | 8 (4.4) | 10 (9.1) | 8 (26.7)\*# | 9 (40.9)\*# | ＜0.001 |
| Shock/DICa, n | 5 (2.8) | 13 (11.8)\* | 5 (16.7)\* | 11 (50.0)\*#& | ＜0.001 |
| MVa, n | 26 (14.4) | 43 (39.1)\* | 13 (43.3)\* | 12 (54.5)\* | ＜0.001 |
| Duration of MVa, hours | 0 [0-0] | 0 [0-134.8]\* | 0 [0-98.5]\* | 11.3 [0-114.0]\* | ＜0.001 |
| Hemofiltrationa, n | 5 (2.8) | 4 (3.6) | 7 (23.3)\*# | 1 (4.5) | 0.002 |
| Furosemidea, n | 11 (6.1) | 11 (10.0) | 10 (33.3)\*# | 7 (31.8)\*# | ＜0.001 |
| Steroida, n | 86 (47.8) | 78 (70.9)\* | 15 (50.0)# | 14 (63.6) | 0.001 |
| Antibiotica, n | 129 (71.7) | 105 (95.5)\* | 19 (63.6)# | 20 (90.9)& | ＜0.001 |
| Inotropea, n | 11 (6.1) | 13 (11.8) | 5 (16.7)\* | 5 (22.7)\* | 0.030 |
| PICU LOS, hours | 70.9 [44.0-128.8] | 132.4 [84.3-209.1]\* | 105.5 [41.6-165.8] | 128.0 [33.3-264.1] | ＜0.001 |
| PICU death, n | 6 (3.3) | 8 (7.3) | 10 (33.3)\*# | 6 (27.3)\*# | ＜0.001 |
| Initial uCXCL10, ng/mg uCr | 0.078[0.031-0.214] | 0.129[0.059-0.384]\* | 0.117[0.034-0.667] | 0.698[0.158-3.064]\*#& | ＜0.001 |
| Peak uCXCL10, ng/mg uCr | 0.102[0.043-0.279] | 0.151[0.074-0.576]\* | 0.187[0.042-1.032] | 1.178[0.173-3.064]\*#& | ＜0.001 |

Values are median [interquartile range]. Numbers in parentheses denote percentages.

AKI acute kidney injury, DIC disseminated intravascular coagulation, LOS length of stay, MODS multiple organ dysfunction syndrome, MV mechanical ventilation, PICU pediatric intensive care unit, PRISM III pediatric risk of mortality III.

aAdministered and developed during PICU stay.

\**P* <0.05 vs. Non-AKI/non-sepsis. #*P* <0.05 vs. Non-AKI/sepsis. &*P* <0.05 vs. AKI/non sepsis.

**Table S2** Association between urinary CXCL10 and septic AKI in children with sepsis (n = 132\*)

|  |  |
| --- | --- |
|  | Septic AKI |
| **Initial uCXCL10** |
| OR (95% CI) | 3.347 (1.696-6.604) |
| *P* value | ＜0.001 |
| AOR (95% CI) | 3.028 (1.499-6.115)a |
| *P* value | 0.002 |
| AUC (95% CI) | 0.72 (0.59-0.85) |
| Optimal off value, ng/mg | 0.88 |
| Sensitivity | 50.0% |
| Specificity | 92.7% |
| **Peak uCXCL10** |
| OR (95% CI) | 2.994 (1.563-5.733) |
| *P* value | 0.001 |
| AOR (95% CI) | 2.660 (1.364-5.189)a |
| *P* value | 0.004 |
| AUC (95% CI) | 0.73 (0.60-0.85) |
| Optimal cutoff value, ng/mg | 0.94 |
| Sensitivity | 59.1% |
| Specificity | 87.3% |

AKI acute kidney injury, AOR adjusted odds ratio, AUC the area under the ROC curve, CI confidence interval.

\*Among 132 of critically ill children with sepsis, 22 were diagnosed with AKI.

aAfter adjustment for body weight and pediatric risk of mortality III (PRISM III) score.

**Table S3** Comparison of demographic and clinical characteristics between survivors and non-survivors

|  |  |  |  |
| --- | --- | --- | --- |
|  | Survivorsn = 312 | Non-survivors n = 30 | *P* value |
| Age, months | 15.0 [3.0-52.0] | 19.5 [5.6-71.3] | 0.254 |
| Body weight, kg | 10.5 [6.0-17.0] | 11.5 [7.0-21.3] | 0.415 |
| Male, n | 205 (65.7) | 21 (70.0) | 0.692 |
| PRISM III score | 3 [0-9] | 15 [7-28] | ＜0.001 |
| AKIa, n | 36 (11.5) | 16 (53.3) | ＜0.001 |
|  AKI stage 1, n | 16 (5.1) | 7 (23.3) | ＜0.001 |
|  AKI stage 2, n | 14 (4.5) | 0 (0) |
|  AKI stage 3, n | 6 (1.9) | 9 (30.0) |
| Sepsisb, n | 118 (37.8) | 14 (46.7) | 0.342 |
| MODSb, n | 17 (5.4) | 18 (60.0) | ＜0.001 |
| Shock/DICb, n | 25 (8.0) | 9 (30.0) | 0.001 |
| MVb, n | 67 (21.5) | 27 (90.0) | ＜0.001 |
| Duration of MVb, hours | 0 [0-0] | 105.5 [21.3-207.1] | ＜0.001 |
| Hemofiltrationb, n | 12 (3.8) | 5 (16.7) | 0.011 |
| Furosemideb, n | 26 (8.3) | 13 (43.3) | ＜0.001 |
| Steroidb, n | 172 (55.1) | 21 (70.0) | 0.127 |
| Antibioticb, n | 248 (79.5) | 25 (83.3) | 0.650 |
| Inotropeb, n | 24 (7.7) | 10 (33.3) | ＜0.001 |
| PICU LOS, hours | 90.0 [46.6-154.2] | 167.8 [64.6-391.6] | 0.007 |
| Initial uCXCL10, ng/mg uCr | 0.096 [0.038-0.251] | 0.701 [0.142-2.681] | ＜0.001 |
| Peak uCXCL10, ng/mg uCr | 0.114 [0.053-0.386] | 2.039 [0.362-4.111] | ＜0.001 |

Values are median [interquartile range]. Numbers in parentheses denote percentages.

AKI acute kidney injury, DIC disseminated intravascular coagulation, LOS length of stay, MODS multiple organ dysfunction syndrome, MV mechanical ventilation, PICU pediatric intensive care unit, PRISM III pediatric risk of mortality III.

aDeveloped during the first week after PICU admission. bAdministered and developed during PICU stay.