

Online Resource 6: P-values for AKI Temporality in Sepsis patients for patients surviving >48 hours

| Category, N (%) ¹ | Unadjusted | | | Adjusted ² | | |
|---|--------------------|--------------------|--------------------|-----------------------|--------------------|--------------------|
| | 1 vs. 2 P-Value | 1 vs. 3 P-Value | 2 vs. 3 P-Value | 1 vs. 2 P-Value | 1 vs. 3 P-Value | 2 vs. 3 P-Value |
| Demographics/Clinical | | | | | | |
| Age at ICU Admission (years) | 0.189 | 0.297 | 0.850 | | | |
| Male Gender | 0.399 | 0.612 | 0.846 | | | |
| Weight at ICU Admission (kg) | 0.035 | 0.111 | 0.843 | | | |
| Any Comorbid Conditions | 0.416 | 0.687 | 0.788 | | | |
| Admission Diagnosis | | | | | | |
| Shock | <0.001 | 0.005 | 0.832 | | | |
| Medical Cardiac | 1.000 | 0.755 | 0.721 | | | |
| Respiratory Failure | 0.001 | 0.687 | 0.005 | | | |
| Post-Surgical/Minor Trauma | 0.568 | 0.680 | 0.444 | | | |
| CNS Dysfunction | 0.833 | 0.088 | 0.177 | | | |
| Pain/Sedation Management | 0.198 | 0.355 | 0.080 | | | |
| History of Transplant | <0.001 | <0.001 | 0.365 | | | |
| PRISM-III | 0.033 | <0.001 | 0.070 | | | |
| PIM-2 | 0.255 | 0.022 | 0.011 | | | |
| PELOD | 0.233 | 0.002 | 0.067 | | | |
| Any Severity Score >75 th Percentile | 0.891 | 0.124 | 0.197 | | | |
| Outcomes | | | | | | |
| Mechanical Ventilation Use | 0.479 | <0.001 | <0.001 | 0.795 | 0.009 | 0.022 |
| CRRT Use | 0.014 | <0.001 | <0.001 | 0.021 | <0.001 | 0.005 |
| ECMO Use | 1.000 | 0.111 | 0.234 | 0.541 | 0.070 | 0.483 |
| 28-Day Mortality | 0.383 | <0.001 | 0.014 | 0.262 | 0.019 | 0.446 |
| 28-Day MV-Free Days | 0.723 | <0.001 | <0.001 | 0.882 | <0.001 | 0.002 |
| 28-Day ICU-Free Days | 0.470 | <0.001 | <0.001 | 0.408 | <0.001 | <0.001 |
| Complex ICU course | 0.788 | <0.001 | <0.001 | 0.619 | <0.001 | <0.001 |

ICU = Intensive Care Unit, AKI = Acute Kidney Injury, PRISM-III = Pediatric Risk of Mortality 3, PIM-2 = Pediatric Index of Mortality 2, PELOD= Pediatric Logistic Organ Dysfunction, CNS = Central Nervous System, MV = Mechanical Ventilation, CRRT = Continuous Renal Replacement Therapy, ECMO = Extracorporeal Membrane Oxygenation

¹P-values considered at the Bonferroni threshold (0.05 / 3 = 0.017)

²Outcome p-values adjusted for SOI score (i.e., Any SOI > 75th)