Table1. Comparative baseline demographics of the death set and survival set.

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| **Variables** | **Total (n = 21680)** | **Survival (n = 17909)** | **Death(n = 3771)** | **P value** |
| Age, Median (Q1,Q3) | 67 (56, 78) | 66 (55, 77) | 71 (59, 81) | < 0.001 |
| Sex, n (%) |  |  |  | 0.316 |
| Female | 9720 (45) | 8001 (45) | 1719 (46) |  |
| Male | 11960 (55) | 9908 (55) | 2052 (54) |  |
| Race, n (%) |  |  |  | < 0.001 |
| White | 15239 (70) | 12744 (71) | 2495 (66) |  |
| Black or Africa American | 1885 (9) | 1577 (9) | 308 (8) |  |
| Hispanic or Lattin | 868 (4) | 725 (4) | 143 (4) |  |
| Others race | 3688 (17) | 2863 (16) | 825 (22) |  |
| LOS ICU, Median (Q1,Q3) | 3.33 (2, 6.5) | 3 (2, 6) | 4.29 (2.5, 8.85) | < 0.001 |
| SOFA, Median (Q1,Q3) | 5 (3, 7) | 4 (3, 7) | 6 (3, 9) | < 0.001 |
| GCS, Median (Q1,Q3) | 13 (8, 14) | 13 (9, 14) | 8 (3, 13) | < 0.001 |
| Vasopressors, Median (Q1,Q3) | 0 (0, 1) | 0 (0, 1) | 0 (0, 1) | < 0.001 |
| Penicillin/cephalosporins, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | < 0.001 |
| Quinolone, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.971 |
| Macrolides, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.083 |
| Sulfa, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.001 |
| Vancomycin, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 1) | < 0.001 |
| Metronidazole, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | < 0.001 |
| Tetracycline, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.623 |
| Aminoglycosides, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.02 |
| Meropenem, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.544 |
| Linezolid, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.751 |
| Other antibiotics, Median (Q1,Q3) | 0 (0, 0) | 0 (0, 0) | 0 (0, 0) | 0.031 |
| CRRT, n (%) |  |  |  | < 0.001 |
| No use | 20369 (94) | 16921 (94) | 3448 (91) |  |
| Use | 1311 (6) | 988 (6) | 323 (9) |  |
| Hematocrit min, Median (Q1,Q3) | 29.7 (25.4, 34.3) | 29.8 (25.5, 34.3) | 29.1 (24.8, 34.4) | < 0.001 |
| Hematocrit max, Median (Q1,Q3) | 33.2 (29.2, 37.8) | 33.3 (29.4, 37.7) | 32.8 (28.5, 38) | 0.001 |
| Hemoglobin min, Median (Q1,Q3) | 9.8 (8.4, 11.3) | 9.8 (8.4, 11.4) | 9.5 (8.1, 11.2) | < 0.001 |
| Hemoglobin max, Median (Q1,Q3) | 10.9 (9.5, 12.5) | 10.9 (9.6, 12.5) | 10.7 (9.2, 12.4) | < 0.001 |
| Platelet min, Median (Q1,Q3) | 162 (109, 229) | 164 (113, 230) | 153 (86, 227) | < 0.001 |
| Platelet max, Median (Q1,Q3) | 193 (135, 265) | 194 (139, 264) | 186 (114, 269) | < 0.001 |
| BUN min, Median (Q1,Q3) | 10.9 (7.4, 15.5) | 10.7 (7.4, 15.2) | 11.6 (7.5, 16.7) | < 0.001 |
| BUN max, Median (Q1,Q3) | 14.2 (9.9, 19.7) | 14 (9.8, 19.4) | 15.3 (10.2, 21.42) | < 0.001 |
| Anion gap min, Median (Q1,Q3) | 12 (10, 15) | 12 (10, 14) | 14 (11, 16) | < 0.001 |
| Anion gap max, Median (Q1,Q3) | 15 (12, 18) | 14 (11, 18) | 17 (13.65, 21) | < 0.001 |
| Bicarbonate min, Median (Q1,Q3) | 21 (18, 24) | 21 (18, 24) | 19 (16, 23) | < 0.001 |
| Bicarbonate max, Median (Q1,Q3) | 23 (21, 26) | 24 (21, 26) | 22 (19, 26) | < 0.001 |
| BUN min, Median (Q1,Q3) | 23 (14, 38) | 21 (14, 36) | 30 (18, 48) | < 0.001 |
| BUN max, Median (Q1,Q3) | 26 (17, 44) | 25 (16, 41) | 35 (23, 55) | < 0.001 |
| Calcium min, Median (Q1,Q3) | 7.9 (7.3, 8.4) | 7.9 (7.4, 8.4) | 7.8 (7.1, 8.3) | < 0.001 |
| Calcium max, Median (Q1,Q3) | 8.3 (7.8, 8.8) | 8.3 (7.8, 8.8) | 8.3 (7.7, 8.8) | 0.347 |
| Chloride min, Median (Q1,Q3) | 104 (99, 108) | 104 (99, 108) | 103 (98, 107) | < 0.001 |
| Chloride max, Median (Q1,Q3) | 107 (102, 111) | 107 (103, 111) | 106 (101, 111) | < 0.001 |
| Creatinine min, Median (Q1,Q3) | 1.1 (0.73, 1.8) | 1.01 (0.7, 1.7) | 1.35 (0.88, 2.3) | < 0.001 |
| Creatinine max, Median (Q1,Q3) | 1.3 (0.9, 2.2) | 1.2 (0.85, 2.02) | 1.64 (1.01, 2.72) | < 0.001 |
| Glucose min, Median (Q1,Q3) | 115 (95, 143) | 115 (96, 142) | 116 (92, 147) | 0.171 |
| Glucose max, Median (Q1,Q3) | 146 (116, 195) | 144 (115, 191) | 158 (122, 216) | < 0.001 |
| Sodium min, Median (Q1,Q3) | 137 (134, 140) | 137 (134, 140) | 137 (133, 141) | < 0.001 |
| Sodium max, Median (Q1,Q3) | 140 (137, 143) | 140 (137, 143) | 140 (136, 144) | 0.005 |
| Potassium min, Median (Q1,Q3) | 3.9 (3.5, 4.3) | 3.8 (3.5, 4.2) | 3.9 (3.4, 4.4) | 0.001 |
| Potassium max, Median (Q1,Q3) | 4.4 (4, 4.9) | 4.3 (3.9, 4.8) | 4.5 (4, 5.1) | < 0.001 |
| Lactate min, Median (Q1,Q3) | 1.4 (1, 2.05) | 1.4 (1, 1.9) | 1.8 (1.3, 2.9) | < 0.001 |
| Lactate max, Median (Q1,Q3) | 2.1 (1.4, 3.4) | 2 (1.3, 3.2) | 2.8 (1.7, 5.2) | < 0.001 |
| Heart rate min, Median (Q1,Q3) | 74 (63, 86) | 73 (63, 85) | 76 (64, 90) | < 0.001 |
| Heart rate max, Median (Q1,Q3) | 108 (94, 124) | 107 (93, 122) | 113 (97, 130) | < 0.001 |
| SBP min, Median (Q1,Q3) | 85 (76, 96) | 86 (77, 96) | 82 (73, 92) | < 0.001 |
| SBP max, Median (Q1,Q3) | 142 (128, 158) | 142 (128, 158) | 140 (125, 157) | < 0.001 |
| DBP min, Median (Q1,Q3) | 44 (38, 51) | 44 (38, 51) | 42 (34, 49) | < 0.001 |
| DBP max, Median (Q1,Q3) | 83 (72, 97) | 83 (72, 97) | 84 (72, 98) | 0.371 |
| MBP min, Median (Q1,Q3) | 56 (49, 63.5) | 57 (50, 64) | 54 (46, 61) | < 0.001 |
| MBP max, Median (Q1,Q3) | 99 (88, 112) | 99 (88, 112) | 98 (87, 112) | 0.011 |
| Resp rate min, Median (Q1,Q3) | 13 (11, 16) | 13 (10.5, 16) | 14 (11, 17) | < 0.001 |
| Resp rate max, Median (Q1,Q3) | 28 (24, 33) | 28 (24, 33) | 30 (25, 35) | < 0.001 |
| Temperature min, Median (Q1,Q3) | 36.4 (36, 36.7) | 36.44 (36.06, 36.72) | 36.33 (35.7, 36.61) | < 0.001 |
| Temperature max, Median (Q1,Q3) | 37.4 (37, 38.1) | 37.44 (37, 38.11) | 37.33 (36.9, 38) | < 0.001 |
| SpO2 min, Median (Q1,Q3) | 92 (89, 95) | 93 (90, 95) | 91 (87, 94) | < 0.001 |
| SpO2 max, Median (Q1,Q3) | 100 (100, 100) | 100 (100, 100) | 100 (100, 100) | 0.985 |
| Urine, Median (Q1,Q3) | 1180 (395, 2062.5) | 1280 (500, 2160) | 750 (125, 1495) | < 0.001 |
| Trainset, n (%) |  |  |  | 0.121 |
| No | 8819 (41) | 7328 (41) | 1491 (40) |  |
| Yes | 12861 (59) | 10581 (59) | 2280 (60) |  |

Abbreviation: LOS ICU, Length of stay in ICU; WBC, White blood cells; BUN, Blood urea nitrogen; SBP, Systolic blood pressure; DBP, Diastolic blood pressure; MBP, Mean arterial pressure; Resp rate, Respiratory rate; SOFA, Sequential Organ Failure Assessment; GCS, Glasgow Coma Scale; CRRT, continuous renal replacement therapy.