Table S2. Characteristics of patients with hemorrhagic stroke by the eGFR levels at admission

|  |  |  |
| --- | --- | --- |
| Variable | eGFR mL/min/1.73 m2 | 　 |
| Total (N=4631) | ≥90 (n=1277) | 60-89 (n=2011) | 30-59 (n=1013) | <30 (n=153) | <15 or dialysis(n=177) | p-value |
| n | % | n | % | n | % | n | % | n | % | n | % |
| Hemorrhagic stroke sub-type |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 |
| Intracerebral hemorrhage | 3563 | 76.94 | 984 | 77.06 | 1561 | 77.62 | 750 | 74.04 | 117 | 76.47 | 151 | 85.31 |  |
| Subarachnoid hemorrhage | 1068 | 23.06 | 293 | 22.94 | 450 | 22.38 | 263 | 25.96 | 36 | 23.53 | 24 | 14.69 |  |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  | 0.03 |
| Female | 1749 | 37.77 | 508 | 39.78 | 738 | 36.70 | 360 | 35.54 | 62 | 40.52 | 81 | 45.76 |  |
| Male | 2882 | 62.23 | 769 | 60.22 | 1273 | 63.30 | 653 | 64.46 | 91 | 59.48 | 96 | 54.24 |  |
| Age, years |  |  |  |  |  |  |  |  |  |  |  |  | <.0001 |
| < 60 | 2065 | 44.59 | 897 | 70.24 | 809 | 40.23 | 242 | 23.89 | 42 | 27.45 | 75 | 42.37 |  |
| 60-70 | 1048 | 22.63 | 288 | 22.55 | 460 | 22.87 | 221 | 21.82 | 26 | 16.99 | 53 | 29.94 |  |
| 71-80 | 942 | 20.34 | 79 | 6.19 | 512 | 25.46 | 275 | 27.15 | 44 | 28.76 | 32 | 18.08 |  |
| > 80 | 576 | 12.44 | 13 | 1.02 | 230 | 11.44 | 275 | 27.15 | 41 | 26.80 | 17 | 9.60 |  |
| Median (Q1, Q3)  | 62.26(52.41,73.43) | 54.45(46.36,61.40) | 64.26(53.93,74.25) | 71.68(60.56,80.68) | 72.09(58.70,80.46) | 63.88(53.71,70.93) | <.0001 |
| BMI, kg/m2  |  |  |  |  |  |  |  |  |  |  |  |  | <.0001 |
| < 18.5 | 236 | 5.10 | 48 | 3.76 | 93 | 4.62 | 64 | 6.32 | 12 | 7.84 | 19 | 10.73 |  |
| 18.5-25 | 2421 | 52.28 | 645 | 50.51 | 1038 | 51.62 | 543 | 53.60 | 87 | 56.86 | 108 | 61.02 |  |
| ≥ 25 | 1974 | 42.63 | 584 | 45.73 | 880 | 43.76 | 406 | 40.08 | 54 | 35.29 | 50 | 28.25 |  |
| Median (Q1, Q3) | 24.30(21.82,27.34) | 24.56(22.06,27.54) | 24.39(22.01,27.47) | 24.07(21.63,27.05) | 23.55(20.54,26.49) | 22.77(20.00,25.86) | <.0001 |
| Comorbidity |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Smoking |  |  |  |  |  |  |  |  |  |  |  |  | 0.02 |
| Current | 1126 | 24.31 | 387 | 30.31 | 486 | 24.17 | 188 | 18.56 | 34 | 22.22 | 31.00 | 17.51 |  |
| Past | 481 | 10.39 | 109 | 8.54 | 207 | 10.29 | 131 | 12.93 | 18 | 11.76 | 16.00 | 9.04 | <.0001 |
| Atrial fibrillation  | 140 | 3.02 | 18 | 1.41 | 56 | 2.78 | 47 | 4.64 | 14 | 9.15 | 5 | 2.82 | <.0001 |
| Previous stroke history | 884 | 19.09 | 153 | 11.98 | 396 | 19.69 | 255 | 25.17 | 46 | 30.07 | 34 | 19.21 | <.0001 |
| Ischemic heart disease | 331 | 7.15 | 53 | 4.15 | 119 | 5.92 | 107 | 10.56 | 23 | 15.03 | 29 | 16.38 | <.0001 |
| Congestive heart failure | 56 | 1.21 | 4 | 0.31 | 14 | 0.70 | 19 | 1.88 | 12 | 7.84 | 7 | 3.95 | <.0001 |
| Diabetes mellitus | 1264 | 27.29 | 283 | 22.16 | 479 | 23.82 | 337 | 33.27 | 75 | 49.02 | 90 | 50.85 | <.0001 |
| Systolic blood pressure, mm Hg  |  |  |  |  |  |  |  |  |  |  |  |  | <.0001 |
| <120 | 250 | 5.40 | 70 | 5.48 | 90 | 4.48 | 68 | 6.71 | 10 | 6.54 | 12 | 6.78 |  |
| 120-139 | 551 | 11.90 | 187 | 14.64 | 227 | 11.29 | 103 | 10.17 | 16 | 10.46 | 18 | 10.17 |  |
| 140-159 | 896 | 19.35 | 299 | 23.41 | 378 | 18.80 | 165 | 16.29 | 30 | 19.61 | 24.00 | 13.56 |  |
| 160-179 | 954 | 20.6 | 261 | 20.44 | 434 | 21.58 | 204 | 20.14 | 27 | 17.65 | 28 | 15.82 |  |
| 180-199 | 858 | 18.53 | 223 | 17.46 | 404 | 20.09 | 171 | 16.88 | 25 | 16.34 | 35 | 19.77 |  |
| ≥200 | 1122 | 24.33 | 237 | 18.56 | 478 | 23.77 | 302 | 29.81 | 45 | 29.41 | 60 | 33.90 |  |
| Median (Q1, Q3) | 172(148,199) | 165(144,192) | 173(150,198) | 175(150,205) | 172(149,205) | 183(151,210) | <.0001 |
| Diastolic blood pressure, mm Hg |  |  |  |  |  |  |  |  |  |  |  |  | 0.007 |
| < 80 | 889 | 19.20 | 217 | 16.99 | 355 | 17.65 | 230 | 22.70 | 39 | 25.49 | 48 | 27.12 |  |
| 80-89 | 770 | 16.63 | 221 | 17.31 | 332 | 16.51 | 165 | 16.29 | 29 | 18.95 | 23 | 12.99 |  |
| 90-99 | 776 | 16.76 | 240 | 18.79 | 339 | 16.86 | 148 | 14.61 | 21 | 13.73 | 28 | 15.82 |  |
| 100-109 | 746 | 16.11 | 211 | 16.52 | 337 | 16.76 | 157 | 15.50 | 16 | 10.46 | 25 | 14.12 |  |
| 110-119 | 601 | 12.98 | 169 | 13.23 | 259 | 12.88 | 131 | 12.93 | 17 | 11.11 | 25 | 14.12 |  |
| ≥ 120 | 849 | 18.33 | 219 | 17.15 | 389 | 19.34 | 182 | 17.97 | 31 | 20.26 | 28 | 15.82 |  |
| Median (Q1, Q3) | 98(83,114) | 98(84,113) | 99(84,114) | 97(81,114) | 94(79,116) | 96(78,113) | <.0001 |
| Cholesterol, mg/dL |  |  |  |  |  |  |  |  |  |  |  |  | 0.01 |
| < 120 | 1578 | 34.07 | 401 | 31.40 | 711 | 35.36 | 367 | 36.23 | 47 | 30.72 | 52 | 29.38 |  |
| 120-159 | 1051 | 22.69 | 284 | 22.24 | 461 | 22.92 | 217 | 21.42 | 45 | 29.41 | 44 | 24.86 |  |
| 160-199 | 1011 | 21.83 | 283 | 22.16 | 431 | 21.43 | 234 | 23.1 | 22 | 14.38 | 41 | 23.16 |  |
| ≥ 200 | 991 | 21.40 | 309 | 24.2 | 408 | 20.29 | 195 | 19.25 | 39 | 25.49 | 40 | 22.60 |  |
| Median (Q1, Q3) | 149(101,192) | 154(106,198) | 147(99,191) | 146(100,187) | 145(105,187) | 154(113194) | <.0001 |
| Hemoglobin, g/dLMedian (Q1, Q3)  | 14.0(12.6,15.3) | 14.5(13.2,15.5) | 14.3(13.1,15.5) | 13.6(12.2,15.0) | 11.8(10.3,13.3) | 10.6(9.4,11.6) | <.0001 |
| HbA1c, %,Median (Q1, Q3)  | 7.40(6.40,7.78) | 7.55(6.50,7.81) | 7.40(6.30,7.69) | 7.37(6.40,7.63) | 7.37(6.67,7.70) | 7.44(6.60,7.84) | 0.92 |
| Albumin, g/dLMedian (Q1, Q3)  | 3.75(3.50,3.91) | 3.83(3.67,3.90) | 3.79(3360,3.90) | 3.67(3.40,3.86) | 3.49(3.00,3.76) | 3.55(3.20,3.83) | 0.001 |
| LDL cholesterol, mg/dLMedian (Q1, Q3) | 72.5(43.0,85.0) | 76.2(46.0,93.0) | 69.3(43.0,82.0) | 69.3(42.0,83.0) | 71.0(41.0,79.2) | 72.0(41.0,79.9) | <.0001 |
| NIHSS score at admission |  |  |  |  |  |  |  |  |  |  |  |  | <.0001 |
| ≤ 5 | 2169 | 46.84 | 657 | 51.45 | 938 | 46.64 | 449 | 44.32 | 59 | 38.56 | 66 | 37.29 |  |
| 6-20 | 1656 | 35.76 | 450 | 35.24 | 761 | 37.84 | 342 | 33.76 | 47 | 30.72 | 56 | 31.64 |  |
| > 20 | 806 | 17.40 | 170 | 13.31 | 312 | 15.51 | 222 | 21.92 | 47 | 30.72 | 55 | 31.07 |  |
| Median (Q1, Q3)  | 6(4,15) | 5(4,13) | 6(4,14) | 7(4,19) | 9(4,24) | 11(4,25) | <.0001 |
| Medicine before admission |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Antiplatelet | 457 | 9.87 | 74 | 5.79 | 187 | 9.30 | 142 | 14.02 | 27 | 17.65 | 27 | 15.25 | <.0001 |
| Warfarin | 95 | 2.05 | 9 | 0.70 | 40 | 1.99 | 31 | 3.06 | 12 | 7.84 | 3 | 1.69 | 0.0004 |
| Statin | 349 | 7.54 | 99 | 7.75 | 143 | 7.11 | 80 | 7.90 | 15 | 9.80 | 12 | 6.78 | 0.72 |
| Discharge disposition |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Death | 391 | 8.44 | 61 | 4.78 | 134 | 6.66 | 116 | 11.45 | 31 | 20.26 | 49 | 27.68 | <.0001 |
| Home  | 3387 | 73.14 | 1025 | 80.27 | 1494 | 74.29 | 690 | 68.11 | 91 | 59.48 | 87 | 49.15 | <.0001 |
| Nursing home  | 356 | 7.69 | 70 | 5.48 | 159 | 7.91 | 93 | 9.18 | 15 | 9.80 | 19 | 10.73 | 0.004 |
| Respiratory Care Ward | 431 | 9.31 | 112 | 8.77 | 198 | 9.85 | 94 | 9.28 | 13 | 8.50 | 14 | 7.91 | 0.79 |
| Transfer | 66 | 1.43 | 9 | 0.70 | 26 | 1.29 | 20 | 1.97 | 3 | 1.96 | 8 | 4.52 | <.0001 |

Abbreviations: eGFR, estimated glomerular ﬁltration rate; Q1, 25th percentile; Q3, 75th percentile; BMI, body mass index; HbA1c, glycohemoglobin; LDL, low-density lipoprotein; NIHSS, National Institutes of Health Stroke Scale.