## Supplemental Table 1 Baseline Characteristics of Patients with AIS Hospitalized in SUs and non-SUs

| Variables              | Total, n (%)<br>N=790,811 | Hospitalized in SUs, | Hospitalized in   |      |
|------------------------|---------------------------|----------------------|-------------------|------|
|                        |                           | n (%)                | non-SUs, n (%)    | ASD  |
|                        |                           | N=193,968 (24.5%)    | N=596,843 (75.5%) |      |
| Age, Mean (SE)         | 66.1(12.0)                | 66.3(12.1)           | 66.1(11.9)        | 1.7  |
| Male                   | 494,756 (62.6)            | 121,844 (62.8)       | 372,912 (62.5)    | 0.6  |
| Arrival by EMS         | 82,859 (10.5)             | 25,431 (13.1)        | 57,428 (9.6)      | 11.1 |
| Admission NIHSS score, | 3.0 (2.0–6.0)             | 3.0 (2.0–6.0)        | 3.0 (2.0-6.0)     | 9.7  |
| median (IQR)*          |                           |                      |                   |      |
| 0-3                    | 347,950 (44.0)            | 84,605 (43.6)        | 263,345 (44.1)    | 1.0  |
| 4-14                   | 251,270 (31.8)            | 68,263 (35.2)        | 183,007 (30.7)    | 9.6  |
| ≥15                    | 34,051 (4.3)              | 10,868 (5.6)         | 23,183 (3.9)      | 8.0  |
| Medical history        |                           |                      |                   |      |
| Stroke/TIA             | 263,769 (33.4)            | 61,279 (31.6)        | 202,490 (33.9)    | 4.9  |
| Hypertension           | 509,975 (64.5)            | 124,457 (64.2)       | 385,518 (64.6)    | 0.8  |
| Diabetes mellitus      | 170,334 (21.5)            | 41,312 (21.3)        | 129,022 (21.6)    | 0.7  |
| Dyslipidemia           | 61,111 (7.7)              | 13,579 (7.0)         | 47,532 (8.0)      | 3.8  |
| CHD/previous MI        | 69,357 (8.8)              | 17,334 (8.9)         | 52,023 (8.7)      | 0.7  |
| Atrial fibrillation    | 39,276 (5.0)              | 10,602 (5.5)         | 28,674 (4.8)      | 3.2  |
| Carotid stenosis       | 10,288 (1.3)              | 2,727 (1.4)          | 7,561 (1.3)       | 0.9  |

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|------------------------|---------------------------|----------------------|-------------------|------|
|                        |                           | n (%)                | non-SUs, n (%)    | ASD  |
|                        |                           | N=193,968 (24.5%)    | N=596,843 (75.5%) |      |
| PVD                    | 13,775 (1.7)              | 2,923 (1.5)          | 10,852 (1.8)      | 2.4  |
| Heart failure          | 7,884 (1.0)               | 1,885 (1.0)          | 5,999 (1.0)       | 0.0  |
| Dementia               | 3,743 (0.5)               | 979 (0.5)            | 2,764 (0.5)       | 0.0  |
| Smoking                | 293,172 (37.1)            | 70,897 (36.6)        | 222,275 (37.2)    | 1.2  |
| Alcoholism             | 185,420 (23.4)            | 46,751 (24.1)        | 138,669 (23.2)    | 2.1  |
| Swallowing function    |                           |                      |                   |      |
| Unknown                | 171,110 (21.6)            | 32,420 (16.7)        | 138,690 (23.2)    | 16.3 |
| Normal                 | 556,869 (70.4)            | 142,583 (73.5)       | 414,286 (69.4)    | 9.1  |
| Dysphagia              | 62,832 (7.9)              | 18,965 (9.8)         | 43,867 (7.3)      | 8.9  |
| Hospital complications |                           |                      |                   |      |
| CVD events             | 49,521 (6.3)              | 10,440 (5.4)         | 39,081 (6.5)      | 4.7  |
| Epileptic seizure      | 4,017 (0.5)               | 1,111 (0.6)          | 2,906 (0.5)       | 1.4  |
| Hydrocephaly           | 1,316 (0.2)               | 386 (0.2)            | 930 (0.2)         | 0.0  |
| Atrial fibrillation    | 38,712 (4.9)              | 10,921 (5.6)         | 27,791 (4.7)      | 4.1  |
| MI                     | 3,028 (0.4)               | 727 (0.4)            | 2,301 (0.4)       | 0.0  |
| GIB                    | 6,438 (0.8)               | 1,912 (1.0)          | 4,526 (0.8)       | 2.1  |
| UTI                    | 9,502 (1.2)               | 2,514 (1.3)          | 6,988 (1.2)       | 0.9  |

| Variables                           | Total, n (%)<br>N=790,811 | Hospitalized in SUs, | Hospitalized in   |      |
|-------------------------------------|---------------------------|----------------------|-------------------|------|
|                                     |                           | n (%)                | non-SUs, n (%)    | ASD  |
|                                     |                           | N=193,968 (24.5%)    | N=596,843 (75.5%) |      |
| Cardiac or respiratory arrest       | 1,628 (0.2)               | 551 (0.3)            | 1,077 (0.2)       | 2.0  |
| Discharge outcomes                  |                           |                      |                   |      |
| Length of stay, median (IQR)        | 11.0 (8.0–14.0)           | 11.0 (8.0–14.0)      | 11.0 (8.0–14.0)   | 3.0  |
| In-hospital mortality               | 1,662 (0.2)               | 527 (0.3)            | 1,135 (0.2)       | 2.0  |
| mRS score at discharge <sup>†</sup> |                           |                      |                   |      |
| 0-2                                 | 270,649 (34.2)            | 64,045 (33.0)        | 206,604 (34.6)    | 3.4  |
| ≥3                                  | 119,908 (15.2)            | 33,865 (17.5)        | 86,043 (14.4)     | 8.5  |
| Region                              |                           |                      |                   |      |
| Eastern                             | 367,586 (46.5)            | 90,511 (46.7)        | 277,075 (46.4)    | 0.6  |
| Central                             | 258,162 (32.6)            | 51,377 (26.5)        | 206,785 (34.6)    | 17.7 |
| Western                             | 165,063 (20.9)            | 52,080 (26.8)        | 112,983 (18.9)    | 18.9 |
| Hospital grade                      |                           |                      |                   |      |
| Secondary                           | 307,090 (38.8)            | 63,597 (32.8)        | 243,493 (40.8)    | 16.6 |
| Tertiary                            | 483,721 (61.2)            | 130,371 (67.2)       | 353,350 (59.2)    | 16.6 |

Abbreviations: SUs: stroke units; SE: standard error; IQR: interquartile range; EMS: emergency medical services; NIHSS: National Institute of Health Stroke Scale; TIA: transient ischemic attack; CI: confidence interval; CHD: coronary heart disease; MI: myocardial infarction; PVD: peripheral vascular disease; CVD: cardiovascular disease; GIB: gastrointestinal bleeding; UTI: urinary tract infection; mRS: modified Rankin Scale \*The NIHSS score was missing in 157,540 (19.9%) cases.

 $^{\dagger}$ The mRS score at discharge was missing in 400,254 (50.6%) cases.