Supplemental Table 2—Multivariate analysis for factors readily available at admission which were associated with being in hospital length of stay longer than the population median of 2 days: multivariable analysis of factors for the total population and for General and Surgery.

| Baseline variables at admission | Total Population | OR- a | Adj OR | 95% CI | p |
|-------------------------------|-----------------|------|--------|--------|---|
| **Age**                      |                 |      |        |        |   |
| 18-40                         |                 | 0.31 | 0.33   | 0.32-0.33 | <0.001 |
| 41-60                         |                 | 0.59 | 0.61   | 0.60-0.62 | <0.001 |
| 61-75                         |                 | 1.00 |        |        |   |
| 76-85                         |                 | 1.40 | 1.37   | 1.34-1.40 | <0.001 |
| 86+                           |                 | 2.10 | 2.03   | 1.98-2.08 | <0.001 |
| **NEWS2 >5**                 |                 |      |        |        |   |
|                               |                 | 4.01 | 3.25   | 3.16-3.36 | <0.001 |
| **Sex (Females versus Male)** |                 |      |        |        |   |
|                               |                 | 0.99 | 1.04   | 1.03-1.06 | <0.001 |
| **Presenting overnight (1700-0800)** |   |      |        |        |   |
|                               |                 | 1.38 | 1.35   | 1.33-1.37 | <0.001 |
| **Admissions preceding 30 days** |               |      |        |        |   |
|                               |                 | 1.34 | 1.30   | 1.28-1.33 | <0.001 |
| **Year of admission**        |                 |      |        |        |   |
| 2016                          |                 | 1.00 |        |        | <0.001 |
| 2017                          |                 | 0.91 | 0.91   | 0.90-0.93 | <0.001 |
| 2018                          |                 | 0.91 | 0.93   | 0.91-0.95 | <0.001 |
| 2019                          |                 | 0.89 | 0.91   | 0.89-0.93 | <0.001 |
| **Admission quarter** *       |                 |      |        |        |   |
| Dec- Feb                      |                 | 1.0  |        |        | <0.001 |
| Mar- May                      |                 | 0.96 | 0.99   | 0.97-1.01 | <0.001 |
| Jun- Aug                      |                 | 0.91 | 0.95   | 0.93-0.97 | <0.001 |
| Sep-Nov                       |                 | 0.93 | 0.98   | 0.96-1.00 | <0.001 |

**Surgery**

| Baseline variables | OR   | Adj OR | 95% CI | p |
|--------------------|------|--------|--------|---|
| **Age**            |      |        |        |   |
| 18-40              | 0.37 | 0.35   | 0.34-0.37 | <0.001 |
| 41-60              | 0.66 | 0.63   | 0.61-0.65 | <0.001 |
| 61-75              | 1.00 |        |        |   |
| 76-85              | 1.27 | 1.26   | 1.21-1.30 | <0.001 |
| 86+                | 1.80 | 1.68   | 1.60-1.77 | <0.001 |
| **NEWS2 >5**      |      |        |        |   |
|                   | 3.94 | 3.51   | 3.24-3.80 | <0.001 |
| **Sex (Females versus Male)** |   |      |        |        |   |
|                   | 1.24 | 1.29   | 1.26-1.32 | <0.001 |
| **Presenting overnight (1700-0800)** |   |      |        |        |   |
|                   | 1.57 | 1.64   | 1.60-1.68 | <0.001 |
| **Admissions preceding 30 days** |               |      |        |        |   |
|                   | 0.91 | 0.90   | 0.88-0.93 | <0.001 |
| **Year of admission** |     |      |        |        |   |
| 2016              | 1.00 |        |        | <0.015 |
| 2017              | 1.00 | 1.01   | 0.97-1.04 | <0.001 |
| 2018              | 0.98 | 1.00   | 0.97-1.03 | <0.001 |
| 2019              | 0.94 | 0.96   | 0.93-0.96 | <0.001 |

**Medicine**

| Baseline variables | OR   | Adj OR | 95% CI | p |
|--------------------|------|--------|--------|---|
| **Age**            |      |        |        |   |
| 18-40              | 0.29 | 0.32   | 0.31-0.33 | <0.001 |
| 41-60              | 0.56 | 0.59   | 0.58-0.61 | <0.001 |
| 61-75              | 1.00 |        |        |   |
| 76-85              | 1.43 | 1.44   | 1.41-1.49 | <0.001 |
| 86+                | 2.16 | 2.23   | 2.16-2.31 | <0.001 |
|                      | NEWS2 >5 | 2.94  | 2.84-3.04 | <0.001 |
|----------------------|----------|-------|-----------|--------|
| Sex (Females versus Male) | 0.80     | 0.87  | 0.85-0.88 | <0.001 |
| Presenting overnight (1700-0800) | 1.28     | 1.22  | 1.20-1.25 | <0.001 |
| Admissions preceding 30 days | 1.51     | 1.53  | 1.49-1.56 | <0.001 |
| Year of admission       | 2016     | 1.00  |           | <0.001 |
|                        | 2017     | 0.88  | 0.95-1.00 |         |
|                        | 2018     | 0.88  | 0.90-0.95 |         |
|                        | 2019     | 0.99  | 0.93-0.98 |         |
| Admission quarter *    | Dec- Feb | 1.0   |           | <0.001 |
|                        | Mar- May | 0.95  | 0.95-1.00 |         |
|                        | Jun- Aug | 0.88  | 0.90-0.95 |         |
|                        | Sep-Nov  | 0.90  | 0.93-0.98 |         |
