|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Hospital admission HR (95% CI)** | | **ITU admission HR (95% CI)** | | **Death HR (95% CI)** | | **Composite HR (95% CI)** | |
|  | Age-sex adj | Fully adj | Age-sex adj | Fully adj | Age-sex adj | Fully adj | Age-sex adj | Fully adj |
| **Age** |  |  |  |  |  |  |  |  |
| 18-<40 | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| 40-<50 | 1.02 (0.97-1.06) | 1.01 (0.95-1.07) | 0.97 (0.88-1.06) | 0.98 (0.87-1.11) | 0.97 (0.91-1.04) | 0.99 (0.91-1.08) | 0.96 (0.91-1.02) | 0.98 (0.91-1.05) |
| 50-<60 | 1.01 (0.97-1.05) | 1.03 (0.97-1.09) | 0.99 (0.92-1.08) | 1.00 (0.88-1.13) | 1.06 (1.00-1.12) | 1.08 (0.99-1.17) | 1.04 (0.99-1.09) | 1.05 (0.98-1.13) |
| 60-<70 | 1.00 (0.95-1.05) | 1.00 (0.94-1.07) | 0.99 (0.89-1.09) | 1.02 (0.90-1.17) | 1.05 (0.98-1.13) | 1.08 (0.98-1.18) | 1.03 (0.97-1.09) | 1.06 (0.98-1.14) |
| 70-<80 | 0.99 (0.93-1.04) | 1.00 (0.93-1.07) | 1.00 (0.90-1.11) | 0.95 (0.83-1.10) | 1.02 (0.95-1.10) | 1.07 (0.97-1.18) | 1.01 (0.95-1.07) | 1.03 (0.95-1.12) |
| 80+ | 1.00 (0.96-1.04) | 1.01 (0.96-1.07) | 1.02 (0.94-1.10) | 0.99 (0.88-1.10) | 1.04 (0.98-1.09) | 1.00 (0.93-1.08) | 1.03 (0.98-1.08) | 0.99 (0.93-1.06) |
|  |  |  |  |  |  |  |  |  |
| **Sex** |  |  |  |  |  |  |  |  |
| Female | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| Male | 0.99 (0.96-1.01) | 0.98 (0.94-1.01) | 0.97 (0.92-1.03) | 1.01 (0.94-1.09) | 1.00 (0.96-1.04) | 0.98 (0.93-1.04) | 0.99 (0.96-1.03) | 0.99 (0.95-1.04) |
|  |  |  |  |  |  |  |  |  |
| **BMI (kg/m2)** |  |  |  |  |  |  |  |  |
| <18.5 | 1.02 (0.96-1.09) | 1.02 (0.95-1.09) | 1.02 (0.90-1.16) | 1.00 (0.87-1.14) | 0.91 (0.83-1.00) | 0.92 (0.83-1.01) | 0.95 (0.88-1.03) | 0.94 (0.87-1.02) |
| 18.5-24.9 | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| 25-29.9 | 0.97 (0.92-1.02) | 0.98 (0.92-1.03) | 1.03 (0.93-1.14) | 1.04 (0.93-1.15) | 1.05 (0.98-1.13) | 1.07 (0.99-1.15) | 1.04 (0.98-1.10) | 1.05 (0.99-1.12) |
| 30-34.9 | 0.98 (0.93-1.03) | 1.00 (0.94-1.05) | 1.02 (0.92-1.13) | 1.02 (0.91-1.13) | 0.98 (0.91-1.06) | 0.98 (0.90-1.05) | 0.99 (0.93-1.05) | 0.98 (0.92-1.05) |
| 35-39.9 | 1.01 (0.96-1.06) | 1.00 (0.95-1.06) | 0.97 (0.88-1.08) | 0.98 (0.88-1.10) | 1.01 (0.94-1.09) | 1.03 (0.95-1.11) | 1.00 (0.94-1.06) | 1.01 (0.95-1.08) |
| ≥40 | 1.00 (0.95-1.05) | 1.00 (0.95-1.06) | 1.01 (0.91-1.11) | 1.03 (0.93-1.14) | 0.99 (0.92-1.06) | 1.00 (0.93-1.08) | 0.99 (0.93-1.05) | 1.01 (0.95-1.07) |
|  |  |  |  |  |  |  |  |  |
| **Smoking** |  |  |  |  |  |  |  |  |
| Never | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| Former | 0.98 (0.95-1.02) | 0.98 (0.94-1.01) | 1.02 (0.96-1.09) | 1.04 (0.96-1.12) | 0.97 (0.93-1.01) | 0.95 (0.91-1.00) | 0.99 (0.95-1.03) | 0.98 (0.94-1.02) |
| Current | 0.99 (0.95-1.03) | 0.98 (0.93-1.03) | 0.98 (0.90-1.06) | 0.99 (0.90-1.09) | 0.94 (0.89-1.00) | 0.93 (0.87-0.99) | 0.96 (0.91-1.00) | 0.95 (0.90-1.00) |
|  |  |  |  |  |  |  |  |  |
| **Ethnicity\*** |  |  |  |  |  |  |  |  |
| White | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| Black | 1.03 (0.98-1.07) | 1.00 (0.95-1.05) | 0.99 (0.91-1.08) | 1.01 (0.91-1.13) | 1.02 (0.96-1.09) | 0.98 (0.91-1.06) | 1.01 (0.96-1.07) | 0.98 (0.92-1.05) |
| Asian | 0.96 (0.91-1.03) | 0.96 (0.89-1.04) | 1.04 (0.92-1.17) | 1.08 (0.93-1.25) | 1.01 (0.92-1.10) | 0.99 (0.89-1.10) | 1.01 (0.94-1.09) | 1.02 (0.93-1.11) |
| Mixed | 1.04 (0.97-1.11) | 1.00 (0.92-1.08) | 0.92 (0.80-1.05) | 0.84 (0.70-0.99) | 1.01 (0.93-1.11) | 1.00 (0.89-1.12) | 0.98 (0.91-1.06) | 0.96 (0.87-1.06) |
| Other | 1.03 (0.96-1.10) | 1.01 (0.93-1.10) | 1.04 (0.91-1.19) | 1.01 (0.85-1.19) | 0.97 (0.88-1.07) | 0.97 (0.86-1.10) | 1.00 (0.92-1.08) | 0.99 (0.90-1.09) |
|  |  |  |  |  |  |  |  |  |
| **IMD quintile** |  |  |  |  |  |  |  |  |
| 1 (least deprived) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| 2 | 0.99 (0.95-1.03) | 0.99 (0.93-1.05) | 1.02 (0.94-1.11) | 1.03 (0.90-1.17) | 0.99 (0.93-1.05) | 1.00 (0.91-1.09) | 1.00 (0.95-1.06) | 1.02 (0.95-1.10) |
| 3 | 0.98 (0.94-1.03) | 0.97 (0.90-1.04) | 0.97 (0.89-1.07) | 0.97 (0.84-1.12) | 0.96 (0.90-1.03) | 0.95 (0.86-1.05) | 0.97 (0.92-1.03) | 0.97 (0.89-1.06) |
| 4 | 0.99 (0.95-1.04) | 1.00 (0.94-1.07) | 1.00 (0.91-1.10) | 1.05 (0.92-1.19) | 1.00 (0.94-1.07) | 1.03 (0.94-1.13) | 1.00 (0.95-1.06) | 1.04 (0.97-1.13) |
| 5 (most deprived) | 1.00 (0.95-1.04) | 0.99 (0.92-1.06) | 1.01 (0.92-1.10) | 1.06 (0.92-1.21) | 0.98 (0.92-1.04) | 0.97 (0.89-1.07) | 0.99 (0.94-1.04) | 1.01 (0.93-1.09) |
|  |  |  |  |  |  |  |  |  |
| **Blood pressure** |  |  |  |  |  |  |  |  |
| Normal | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) | 1.00 (ref) |
| Elevated | 1.02 (0.97-1.07) | 1.00 (0.94-1.06) | 0.95 (0.86-1.06) | 0.97 (0.85-1.10) | 1.00 (0.93-1.07) | 1.01 (0.92-1.10) | 0.98 (0.93-1.05) | 1.00 (0.93-1.07) |
| High Stage 1 | 1.01 (0.98-1.04) | 1.01 (0.97-1.05) | 0.95 (0.89-1.02) | 0.97 (0.89-1.06) | 0.97 (0.93-1.02) | 0.97 (0.91-1.02) | 0.96 (0.92-1.00) | 0.97 (0.92-1.02) |
| High Stage 2 | 1.02 (0.99-1.06) | 1.02 (0.98-1.07) | 0.94 (0.88-1.01) | 0.97 (0.89-1.06) | 0.95 (0.90-0.99) | 0.96 (0.90-1.02) | 0.95 (0.91-0.99) | 0.96 (0.92-1.01) |
|  |  |  |  |  |  |  |  |  |
| ***Co-morbidities*** |  |  |  |  |  |  |  |  |
| Respiratory disease ex asthma | 0.91 (0.77-1.07) | 0.99 (0.76-1.28) | 0.99 (0.72-1.36) | 0.92 (0.55-1.55) | 0.92 (0.73-1.15) | 0.94 (0.64-1.37) | 0.95 (0.79-1.15) | 0.94 (0.69-1.28) |
| Asthma | 0.86 (0.47-1.55) | 0.50 (0.19-1.34) | 2.26 (1.07-4.74) | 2.67 (1.10-6.44) | 0.47 (0.15-1.45) | 0.26 (0.04-1.86) | 1.10 (0.59-2.04) | 1.11 (0.50-2.47) |
| Chronic heart disease | 1.01 (0.98-1.05) | 0.98 (0.88-1.09) | 1.00 (0.93-1.08) | 1.09 (0.88-1.34) | 1.02 (0.97-1.08) | 1.03 (0.89-1.20) | 1.02 (0.98-1.06) | 1.04 (0.92-1.18) |
| Diabetes | 1.01 (0.97-1.04) | 0.95 (0.89-1.02) | 1.02 (0.95-1.08) | 1.05 (0.92-1.19) | 1.00 (0.95-1.05) | 0.95 (0.86-1.05) | 1.01 (0.97-1.05) | 0.99 (0.91-1.07) |
| Cancer ex haem (in last year) | 1.03 (0.97-1.10) | 1.15 (0.96-1.37) | 1.06 (0.94-1.19) | 0.93 (0.62-1.38) | 1.04 (0.95-1.14) | 1.15 (0.89-1.49) | 1.05 (0.97-1.12) | 1.05 (0.84-1.31) |
| Canc haem/ apl anaem /bone mrrw transpl  (last yr) |  |  |  |  |  |  |  |  |
| Liver disease | 1.02 (0.96-1.09) | 0.96 (0.77-1.19) | 1.04 (0.92-1.19) | 1.08 (0.68-1.72) | 1.03 (0.93-1.13) | 0.93 (0.68-1.27) | 1.03 (0.96-1.12) | 0.99 (0.76-1.29) |
| Stroke/  dementia | 0.99 (0.89-1.10) | 0.97 (0.81-1.15) | 1.01 (0.82-1.24) | 1.03 (0.74-1.45) | 1.04 (0.91-1.20) | 0.95 (0.75-1.22) | 1.03 (0.91-1.16) | 0.98 (0.80-1.20) |
| Other neurological |  |  |  |  |  |  |  |  |
| Kidney disease | 0.93 (0.81-1.07) | 1.19 (1.02-1.39) | 0.90 (0.67-1.20) | 0.86 (0.60-1.24) | 0.91 (0.75-1.12) | 1.08 (0.86-1.36) | 0.92 (0.78-1.09) | 1.01 (0.83-1.23) |
| Organ transplant | 0.99 (0.37-2.63) | 0.95 (0.31-2.96) | 0.94 (0.13-6.66) | 1.18 (0.17-8.40) | 0.46 (0.07-3.29) | 0.00 ( .- .) | 0.65 (0.16-2.61) | 0.42 (0.06-2.97) |
| Spleen diseases | 1.01 (0.96-1.06) | 1.09 (0.95-1.26) | 0.97 (0.88-1.08) | 0.90 (0.69-1.19) | 1.01 (0.94-1.09) | 0.99 (0.81-1.21) | 1.00 (0.95-1.07) | 0.97 (0.82-1.14) |
| Rheumatoid/Lupus/ Psoriasis | 0.97 (0.82-1.14) | 0.81 (0.65-1.01) | 1.07 (0.78-1.46) | 1.00 (0.67-1.49) | 0.88 (0.69-1.13) | 0.69 (0.49-0.96) | 0.91 (0.75-1.12) | 0.76 (0.58-0.99) |
| Endocrine disease | (later) |  |  |  |  |  |  |  |
| **Immunosuppression not classified elsewhere** | (later) |  |  |  |  |  |  |  |

**GREY HIGHLIGHT = DUMMY DATA - NOT REAL; YELLOW HIGHLIGHT = YET TO BE IMPLEMENTED**

FOOTNOTES: Ethnicity/BMI from a CC model? Adjustment for age slpine?