|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **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 | 0.99 (0.94-1.04) | 1.01 (0.95-1.07) | 1.04 (0.95-1.14) | 1.03 (0.92-1.15) | 1.08 (0.99-1.19) | 1.10 (0.98-1.22) | 1.00 (0.91-1.10) | 1.01 (0.90-1.13) |
| 50-<60 | 0.97 (0.93-1.01) | 1.01 (0.95-1.07) | 1.02 (0.94-1.10) | 1.01 (0.90-1.13) | 1.02 (0.94-1.10) | 1.07 (0.96-1.20) | 0.95 (0.87-1.03) | 0.96 (0.86-1.07) |
| 60-<70 | 0.99 (0.94-1.05) | 1.01 (0.95-1.07) | 1.02 (0.92-1.13) | 0.99 (0.88-1.12) | 1.00 (0.90-1.11) | 1.02 (0.90-1.15) | 0.96 (0.86-1.07) | 0.99 (0.88-1.12) |
| 70-<80 | 1.00 (0.94-1.05) | 1.01 (0.95-1.08) | 1.11 (1.00-1.23) | 1.10 (0.98-1.24) | 0.93 (0.83-1.04) | 0.95 (0.84-1.08) | 0.93 (0.83-1.04) | 0.89 (0.78-1.01) |
| 80+ | 1.04 (1.00-1.08) | 1.06 (1.00-1.11) | 1.01 (0.93-1.09) | 1.03 (0.93-1.15) | 1.06 (0.98-1.15) | 1.04 (0.94-1.15) | 1.01 (0.93-1.10) | 1.01 (0.91-1.12) |
|  |  |  |  |  |  |  |  |  |
| **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 | 1.01 (0.98-1.04) | 1.04 (1.00-1.07) | 1.06 (1.00-1.12) | 1.06 (0.99-1.13) | 0.99 (0.93-1.05) | 1.01 (0.94-1.08) | 0.99 (0.93-1.05) | 1.01 (0.94-1.08) |
|  |  |  |  |  |  |  |  |  |
| **BMI (kg/m2)** |  |  |  |  |  |  |  |  |
| <18.5 | 1.01 (0.97-1.06) | 1.00 (0.95-1.05) | 1.00 (0.91-1.09) | 1.01 (0.92-1.12) | 1.07 (0.97-1.17) | 1.07 (0.97-1.18) | 1.01 (0.92-1.11) | 1.05 (0.95-1.16) |
| 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 | 1.00 (0.96-1.04) | 0.99 (0.94-1.04) | 1.01 (0.92-1.10) | 0.98 (0.89-1.07) | 0.98 (0.90-1.07) | 1.01 (0.91-1.11) | 0.98 (0.90-1.07) | 1.01 (0.91-1.11) |
| 30-34.9 | 1.02 (0.98-1.07) | 1.01 (0.96-1.06) | 1.01 (0.92-1.11) | 1.03 (0.94-1.14) | 0.98 (0.90-1.08) | 0.98 (0.89-1.09) | 0.99 (0.91-1.09) | 1.02 (0.93-1.13) |
| 35-39.9 | 0.97 (0.93-1.02) | 0.95 (0.91-1.00) | 0.97 (0.88-1.06) | 0.97 (0.88-1.07) | 0.95 (0.86-1.04) | 0.94 (0.85-1.04) | 1.00 (0.91-1.10) | 1.03 (0.93-1.14) |
| ≥40 | 1.03 (0.98-1.08) | 1.02 (0.97-1.07) | 0.93 (0.85-1.03) | 0.94 (0.85-1.04) | 1.01 (0.92-1.11) | 1.00 (0.90-1.11) | 0.98 (0.89-1.08) | 1.02 (0.92-1.13) |
|  |  |  |  |  |  |  |  |  |
| **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 | 1.02 (0.99-1.06) | 1.03 (0.99-1.06) | 1.00 (0.94-1.07) | 1.00 (0.94-1.07) | 0.98 (0.91-1.04) | 0.98 (0.91-1.04) | 0.96 (0.90-1.03) | 0.96 (0.90-1.03) |
| Current | 1.00 (0.95-1.04) | 1.00 (0.96-1.04) | 0.98 (0.90-1.06) | 0.97 (0.89-1.06) | 1.02 (0.94-1.10) | 1.02 (0.94-1.11) | 1.10 (1.01-1.19) | 1.10 (1.01-1.19) |
|  |  |  |  |  |  |  |  |  |
| **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 | 0.99 (0.95-1.04) | 0.99 (0.95-1.04) | 0.92 (0.84-1.01) | 0.93 (0.85-1.02) | 0.98 (0.89-1.07) | 0.98 (0.89-1.08) | 1.12 (1.03-1.23) | 1.12 (1.02-1.23) |
| Asian | 1.02 (0.95-1.08) | 1.00 (0.94-1.07) | 0.97 (0.86-1.10) | 1.00 (0.87-1.14) | 1.07 (0.95-1.21) | 1.07 (0.94-1.22) | 1.07 (0.95-1.22) | 1.06 (0.93-1.22) |
| Mixed | 0.93 (0.87-1.00) | 0.93 (0.87-1.00) | 0.83 (0.72-0.95) | 0.85 (0.73-0.99) | 0.96 (0.84-1.09) | 0.97 (0.84-1.12) | 1.15 (1.01-1.31) | 1.16 (1.01-1.33) |
| Other | 0.94 (0.88-1.01) | 0.94 (0.87-1.02) | 0.87 (0.75-1.00) | 0.91 (0.78-1.06) | 0.90 (0.78-1.04) | 0.91 (0.78-1.06) | 1.04 (0.90-1.20) | 1.04 (0.90-1.21) |
|  |  |  |  |  |  |  |  |  |
| **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 | 1.00 (0.95-1.04) | 0.97 (0.91-1.03) | 1.02 (0.93-1.12) | 1.02 (0.90-1.14) | 1.05 (0.95-1.15) | 1.09 (0.96-1.23) | 1.04 (0.95-1.14) | 1.03 (0.91-1.16) |
| 3 | 1.00 (0.95-1.05) | 0.96 (0.91-1.03) | 1.08 (0.98-1.20) | 1.08 (0.95-1.22) | 1.03 (0.93-1.14) | 1.06 (0.92-1.21) | 0.95 (0.86-1.05) | 0.94 (0.82-1.07) |
| 4 | 1.02 (0.97-1.07) | 0.98 (0.92-1.05) | 1.00 (0.90-1.10) | 0.99 (0.87-1.12) | 1.16 (1.05-1.28) | 1.18 (1.04-1.35) | 1.04 (0.94-1.15) | 1.01 (0.88-1.15) |
| 5 (most deprived) | 0.99 (0.94-1.03) | 0.95 (0.89-1.00) | 0.99 (0.91-1.09) | 0.98 (0.87-1.10) | 1.12 (1.02-1.22) | 1.14 (1.01-1.29) | 1.02 (0.93-1.12) | 1.00 (0.89-1.13) |
|  |  |  |  |  |  |  |  |  |
| **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 | 1.00 (0.94-1.07) | 0.96 (0.90-1.04) | 1.11 (0.98-1.26) | 1.12 (0.98-1.28) | 1.03 (0.91-1.17) | 1.04 (0.91-1.20) | 1.01 (0.89-1.15) | 1.02 (0.89-1.17) |
| High Stage 1 | 0.96 (0.93-1.00) | 0.97 (0.92-1.02) | 1.05 (0.97-1.13) | 1.11 (1.00-1.23) | 1.02 (0.95-1.11) | 1.05 (0.95-1.17) | 0.95 (0.88-1.03) | 0.96 (0.86-1.07) |
| High Stage 2 | 0.97 (0.94-1.01) | 0.96 (0.92-1.01) | 0.99 (0.92-1.07) | 1.00 (0.91-1.10) | 0.98 (0.91-1.05) | 0.96 (0.87-1.06) | 1.01 (0.94-1.09) | 1.01 (0.92-1.11) |
|  |  |  |  |  |  |  |  |  |
| ***Co-morbidities*** |  |  |  |  |  |  |  |  |
| Respiratory disease ex asthma | 1.02 (0.86-1.21) | 1.05 (0.88-1.26) | 1.07 (0.77-1.48) | 1.06 (0.74-1.50) | 0.78 (0.53-1.14) | 0.76 (0.50-1.15) | 0.95 (0.67-1.35) | 0.99 (0.67-1.44) |
| Asthma | 0.79 (0.40-1.58) | 0.94 (0.47-1.87) | 0.82 (0.20-3.28) | 0.94 (0.24-3.78) | 0.41 (0.06-2.88) | 0.50 (0.07-3.59) | 2.03 (0.84-4.87) | 1.49 (0.50-4.41) |
| Chronic heart disease | 0.98 (0.94-1.01) | 0.97 (0.88-1.08) | 0.96 (0.90-1.04) | 0.96 (0.79-1.18) | 1.02 (0.95-1.10) | 1.08 (0.88-1.31) | 0.98 (0.91-1.06) | 0.85 (0.69-1.06) |
| Diabetes | 0.98 (0.95-1.01) | 1.00 (0.94-1.07) | 1.00 (0.93-1.07) | 1.03 (0.92-1.16) | 0.98 (0.92-1.05) | 0.91 (0.80-1.03) | 1.01 (0.94-1.08) | 1.04 (0.92-1.17) |
| Cancer ex haem (in last year) | 0.00 ( .- .) | 0.00 (0.00- .) | 0.00 (0.00- .) | 0.00 (0.00- .) | 0.00 (0.00- .) | 0.00 (0.00- .) | 5.59 (0.78-39.90) | 1.90 (0.11-34.11) |
| Canc haem/ apl anaem /bone mrrw transpl  (last yr) | 1.89 (0.27-13.45) | 0.00 (0.00- .) | 0.00 ( .- .) | 0.00 (0.00- .) | 0.00 ( .- .) | 0.00 (0.00- .) | 7.03 (0.99-50.08) | 5.91 (0.36-98.01) |
| Liver disease | 1.01 (0.95-1.08) | 1.09 (0.95-1.25) | 0.98 (0.86-1.12) | 1.01 (0.77-1.33) | 1.06 (0.93-1.21) | 1.06 (0.80-1.39) | 1.05 (0.92-1.20) | 1.17 (0.88-1.55) |
| Stroke/  dementia | 0.99 (0.93-1.06) | 1.01 (0.94-1.08) | 1.12 (1.00-1.26) | 1.13 (1.00-1.29) | 1.03 (0.91-1.16) | 1.01 (0.89-1.16) | 1.00 (0.88-1.14) | 0.98 (0.85-1.12) |
| Other neurological | 1.00 (0.94-1.07) | 1.01 (0.94-1.08) | 0.92 (0.81-1.05) | 0.93 (0.81-1.07) | 0.98 (0.86-1.11) | 0.97 (0.85-1.11) | 0.81 (0.70-0.93) | 0.80 (0.68-0.93) |
| Kidney disease | 0.97 (0.91-1.04) | 0.97 (0.90-1.04) | 1.00 (0.88-1.14) | 1.01 (0.89-1.16) | 1.06 (0.94-1.20) | 1.08 (0.95-1.23) | 0.98 (0.86-1.11) | 0.97 (0.85-1.12) |
| Organ transplant | 1.78 (0.80-3.97) | 1.26 (0.47-3.37) | 2.03 (0.51-8.14) | 2.26 (0.56-9.04) | 0.00 (0.00- .) | 0.00 (0.00- .) | 2.16 (0.54-8.64) | 2.49 (0.62-9.97) |
| Spleen diseases | 0.96 (0.91-1.01) | 0.97 (0.84-1.11) | 0.95 (0.86-1.05) | 0.90 (0.69-1.17) | 0.99 (0.89-1.09) | 1.02 (0.78-1.34) | 0.98 (0.88-1.08) | 1.16 (0.87-1.54) |
| Rheumatoid/Lupus/ Psoriasis | 0.92 (0.77-1.10) | 0.90 (0.74-1.09) | 1.00 (0.71-1.41) | 1.03 (0.72-1.47) | 1.11 (0.80-1.54) | 1.02 (0.71-1.47) | 0.83 (0.57-1.21) | 0.86 (0.57-1.28) |
| 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?