**S3 APPENDIX. SENSITIVITY ANALYSES**



**Figure S1.** Factors associated with AR, BR, resistance due to MRSA, MR and QR in the sensitivity analyses.

Note: AR: antimicrobial resistance, BR: beta-lactam resistance, MRSA: Methicillin-resistant *Staphylococcus aureus*, MR: multidrug resistance, QR: quinolone resistance. AR group includes those with BR, resistance due to MRSA, MR, and QR.

**Table S2.** Impact of antimicrobial resistance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **AR** | **BR** | **MRSA** | **MR** | **QR** |
| **Unadjusted models** |
| All-cause inpatient mortalitya, OR (95%CI) | 1.28(1.15-1.43) | 0.52(0.31-0.86) | 2.05(1.79-2.34) | 0.69(0.52-0.91) | 0.85(0.49-1.46) |
| Discharge to healthcare facilitiesa, OR (95%CI) | 1.74(1.69-1.79) | 1.43(1.31-1.56) | 2.17(2.07-2.28) | 1.4(1.32-1.47) | 1.19(1.07-1.34) |
| Length of stayb Days (95%CI) | 1.74(1.67 to 1.82) | 0.97(0.64 to 1.29) | 2.36(2.23 to 2.49) | 1.22(1.11 to 1.33) | -0.12(-0.28 to 0.04) |
| Hospital costsc 2016 USD (95%CI) | 2673(2535 to 2811) | 1621(1303 to 1939) | 3854(3601 to 4106) | 1496(1274 to 1717) | 76(-226 to 379) |
| **Adjusted modelsΦ** |
| All-cause inpatient mortalitya, OR (95%CI) | 1.01(0.9-1.14) | 0.5(0.3-0.85) | 1.29(1.12-1.49) | 0.67(0.5-0.9) | 0.82(0.46-1.46) |
| Discharge to healthcare facilitiesa, OR (95%CI) | 1.74(1.69-1.8) | 1.41(1.28-1.54) | 2.12(2.01-2.24) | 1.48(1.4-1.57) | 1.2(1.06-1.36) |
| Length of stayb Days (95%CI) | 1.11(1.05 to 1.18) | 0.76(0.45 to 1.08) | 1.35(1.25 to 1.44) | 0.81(0.72 to 0.9) | -0.06(-0.22 to 0.1) |
| Hospital costsc 2016 USD (95%CI) | 1236(1152 to 1320) | 911(667 to 1156) | 1609(1474 to 1745) | 611(471 to 751) | 135(-113 to 383) |
| *Note: a Logistic models; b Negative binomial regression model, c Generalized linear models, ΦModels were adjusted for a range of socio-demographic and clinical covariates as stated in the Method section. All models were weighted for HCUP weights to generate national estimates, the reference cases were those without antimicrobial resistance. OR: odds ratio, 95%CI: 95% confidence interval. AR: antimicrobial resistance, BR: beta-lactam resistance, MRSA: resistance due to MRSA, MR: multidrug resistance, QR: quinolone resistance. AR group includes those with BR, resistance due to MRSA, MR, and QR.* |