**Table S1. Urine Culturing, Antibiotic Use, and Clinical Outcomes Associated with BLADDER Score Implementation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Outcome | Before Intervention(mean) | After Intervention(mean) | Level Effect(95% Confidence Interval) | Sensitivity analysis Level Effect:Censor implementation planning periodIRR (95% Confidence interval) |
| Urine Culturing |  |  |  |  |
| Urine cultures/1000 patient days  | 12.47 | 7.92 | IRR 0.87 (0.67 to 1.12) | IRR 0.90 (0.65 to 1.24) |
| Positive culture proportion | 0.51 | 0.57 | OR 0.90 (0.52 to 1.53) | OR 0.74 (0.39 to 1.40) |
| Antibiotic Use |  |  |  |  |
| Urinary antibiotics DDD/1000 patient days | 40.55 | 25.96 | IRR 0.68 (0.59 to 0.79) | OR 0.81 (0.68 to 0.96) |
| Urinary proportion of total antibiotics | 0.31 | 0.25 | OR 0.67 (0.56 to 0.81) | OR 0.77 (0.63 to 0.95) |
| Non-urinary antibioticsDDD/1000 patient days | 39.36 | 29.73 | IRR 0.97 (0.84 to 1.11) | IRR 0.82 (0.69 to 0.98) |
| Total antibioticsDDD/1000 patient days | 135.55 | 109.96 | IRR 0.85 (079 to 0.92) | IRR 0.96 (0.88 to 1.06) |
| Clinical Outcomes |  |  |  |  |
| Length of Stay (days) | 38.17 | 34.69 | 0.02 (-7.33 to 7.38) | -2.66 (-12.30 to 6.98) |
| Acute Care Transfers/1000 patient days | 2.77 | 2.25 | IRR 0.86 (0.52 to 1.43) | IRR 0.58 (0.30 to 1.13) |
| MortalityDeaths/1000 patient days | 1.40 | 1.62 | IRR 1.00 (0.51 to 1.95) | IRR 1.17 (0.50 to 2.77) |

**Figure S1. Non-Urinary Antibiotic Use Before and After BLADDER Score **

Red line represents the pre intervention and predicted outcome during the study period without the intervention. Black line represents actual model during the post-intervention period. Non urinary antibiotics included clindamycin, cloxacillin, daptomycin, fidaxomicin, macrolides, metronidazole, linezolid, moxifloxacin, penicillin, tetracyclines, vancomycin.

**Figure S2. Mean Length of Stay (in Days) Before and After BLADDER Score**



Red line represents the pre intervention and predicted outcome during the study period without the intervention. Black line represents actual model during the post-intervention period.

**Figure S3. Acute Care Transfers Before and After BLADDER Score**



Red line represents the pre intervention and predicted outcome without the intervention. Black line represents actual model during the post-intervention period.

**Figure S4. Mortality Before and After BLADDER Score**



Red line represents the pre intervention and predicted outcome during the study period without the intervention. Black line represents actual model during the post-intervention period.