**Population Structure Drives Differential Methicillin-resistant *Staphylococcus aureus* Colonization Dynamics**

**Supplemental Material**

**Table S1** Transitions and Equations for the Single Staff Type (SST) Model of MRSA Acquisition

|  |  |  |  |
| --- | --- | --- | --- |
| Process | Event | Transition | Equation |
| MRSA Acquisition & Transmission | Staff Contaminated | SU to SC |  |
| Patient Colonized | PU to PC |  |
| MRSA Decolonization | Natural De-colonization | PC to PU | μ |
| Hand Hygiene and Decontamination | Hand Decontamination | SC to SU |  |
| PPE Change | SC to SU |  |
| Patient Admissions and Discharge | PU Discharge to PU Admission\* |  |  |
| PU Discharge to PC Admission\* |  |  |
| PC Discharge to PU Admission\* |  |  |
| PC Discharge to PC Admission\* |  |  |

\* Note that patient discharge to patient admissions are not true “transitions” of a single individual, but rather the instantaneous replacement of a discharged patient with a newly admitted patient to maintain a steady population state. See 37 for details.