**Supplementary table 1: Carbapenem-resistant *Enterobacteriaceae* surveillance policy at Rambam Health Care Campus**

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| Carbapenem-resistant *Enterobacteriaceae* rectal swab surveillance policy at Rambam Health Care Campus |
| For all high-risk patients within 24 hours of admission:   * Patients referred from long-term care facilities or other hospitals * Patients admitted to another hospital in the past six months, including admissions to hospitals abroad * Patients who attended a hemato-oncology outpatient clinic in the past six months * Medical tourists * Patients transferred from one department to another during hospital admission * Healthcare workers * Hemodialysis patients * First-degree relatives of a known CRE carrier |
| Routinely on 7–10-day intervals for all hospitalized patients in high-risk departments:   * Intensive care units * Bone marrow transplant unit and hematology departments * General surgery * Orthopedics * Neurosurgery * Internal medical departments * Departments with outbreaks as identified by the infection control team |
| Contact tracing of a new Carbapenem-resistant *Enterobacteriaceae* acquisitions |

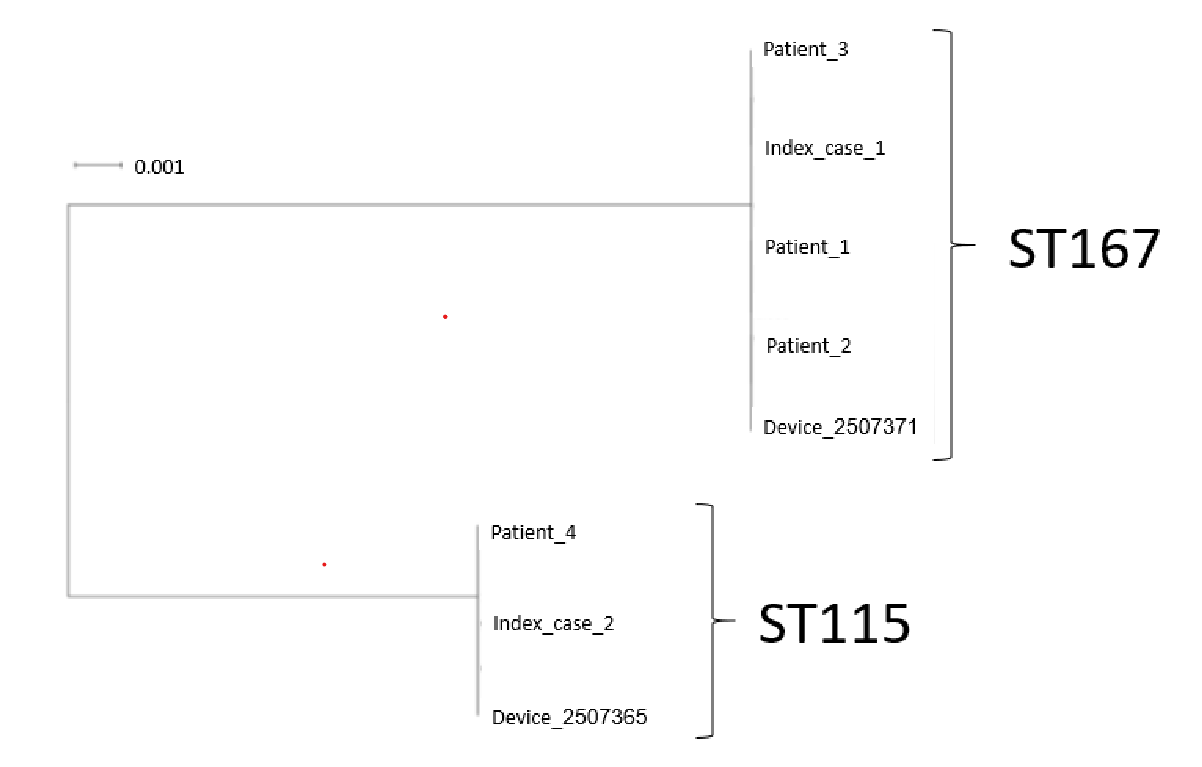
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**Supplementary Table 2: Antibiotics resistance genes found in the *Escherichia coli* isolates**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ID** | **Number** | **seqence type** | ***aac(3)-IIe*** | ***aac(3)-IId*** | ***aadA1*** | ***aph(3')-Ia*** | ***aph(3'')-Ib*** | ***aph(6)-Id*** | ***drfA12*** | ***drfA14*** | ***dfrA36*** | ***Inu(F)*** | ***mdf(A)*** | ***sul1*** | ***sul2*** | ***sul3*** | ***cmlA1*** |
| **event 1** | Patient 3 | 4970441 | 167 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Patient 1 | 4970442 | 167 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Index case 1 | 4970443 | 167 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Patient 2 | 4970444 | 167 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Device\_2507371 | 4970456 | 167 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| **event 2** | Patient 4 | 4972018 | 115 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| Device\_2507365 | 4972028 | 115 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| Index case 2 | 4972160 | 115 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **ID** | **Number** | ***floR*** | ***tet(A)*** | ***tet(M)*** | ***blaNDM-1*** | ***blaNDM-19*** | ***blaTEM-1*** | ***blaTEM-1B*** | ***blaTEM-235*** | ***ant(2'')-Ia*** | ***bla-CTX-M-15*** | ***blaEC-8*** | ***blaOXA-1*** | ***ble*** | ***catA1*** | ***qauEdelta1*** | ***qnrB1*** |
| **event 1** | Patient 3 | 4970441 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Patient 1 | 4970442 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Index case 1 | 4970443 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Patient 2 | 4970444 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Device\_2507371 | 4970456 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **event 2** | Patient 4 | 4972018 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Device\_2507365 | 4972028 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Index case 2 | 4972160 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |

**Supplementary Figure 1: Phylogenetic tree of E coli samples from outbreaks 1 and 2**

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