**Supplementary materials**

Supplementary table 1. Percent susceptibility of MRSA to available antibiotics for each infection. Panel of antibiotics tested for each isolate was different.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sources of infection (N)** | **Vancomycin**  **(%)** | **Teicoplanin**  **(%)** | **Linezolid**  **(%)** | **Trimethoprim**  **/sulbactam**  **(%)** | **Tetracycline**  **(%)** | **Doxycycline**  **(%)** | **Clindamycin**  **(%)** | **Erythromycin**  **(%)** | **Ciprofloxacin**  **(%)** | **Moxifloxacin**  **(%)** |
| **Skin and soft tissue (31)** | 20/20  (100) | 20/20  (100) | 19/20  (95) | 18/26  (69) | 10/20  (50) | 3/6  (50) | 22/26  (85) | 24/26  (92) | 3/26  (12) | 4/25  (16) |
| **Respiratory tracts (42)** | 35/35  (100) | 33/33  (100) | 35/35  (100) | 32/37  (86) | 24/35  (69) | 2/2  (100) | 5/37  (14) | 4/37  (11) | 2/37  (5) | 2/37  (5) |
| * **Tracheobrochitis (8)** | 5/5  (100) | 5/5  (100) | 5/5  (100) | 4/5  (80) | 4/5  (80) | N/A | 0/5  (0) | 0/5  (0) | 0/5  (0) | 0/5  (0) |
| * **Pneumonia (34)** | 30/30  (100) | 30/30  (100) | 30/30  (100) | 28/32  (88) | 20/30  (67) | 2/2  (100) | 5/32  (16) | 4/32  (13) | 2/32  (6) | 2/32  (6) |
| **Septicemia (12)** | 8/8  (100) | 8/8  (100) | 8/8  (100) | 7/9  (78) | 6/8  (75) | 1/1  (100) | 0/9  (0) | 0/9  (0) | 0/9  (0) | 0/8  (0) |
| * **Primary septicemia (6)** | 6/6  (100) | 5/5  (100) | 6/6  (100) | 5/6  (83) | 5/6  (83) | N/A | 0/6  (0) | 0/6  (0) | 0/6  (0) | 0/6  (0) |
| * **CLABSI (6)** | 2/2  (100) | 3/3  (100) | 2/2  (100) | 2/3  (67) | 1/2  (50) | 1/1  (100) | 0/3  (0) | 0/3  (0) | 0/3  (0) | 0/2  (0) |
| **Other (5)** | 5/5  (100) | 5/5  (100) | 5/5  (100) | 4/5  (80) | 3/5  (60) | N/A | 1/5  (20) | 0/5  (0) | 0/5  (0) | 0/5  (0) |

CLABSI: Central line-associated blood stream infection

Supplementary table 2. Details of patients with MRSA isolation requested for vancomycin minimum inhibitory concentration (MIC) level by Etest.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Principle diagnosis | Site of infection | Age | Vancomycin MIC by Etest | MIC by Vitek 2 | | | | | | | | | |
| Vancomycin | Teicoplanin | Linezolid | Trimet/Sulfa | Tetracycline | Doxycyclin | Clindamycin | Erythromycin | Ciproflxacin | Moxifloxacin |
| 1 | Bacterial pneumonia | Colonization | 1 | 1 | S | S | S | S | S | S | R | R | R | R |
| 2 | Osteosarcoma | Skin and soft tissue | 13 | 0.38 | S | S | S | S | S | S | R | R | R | R |
| 3 | Peripheral arterial disease | Endovascular | 69 | 2 | S | S | S | R | R | S | R | R | R | R |
| 4 | Electrical burn | Septicemia | 49 | 1.5 | S | S | S | R | R | S | R | R | R | R |
| 5 | Cellulitis at left foot | Skin and soft tissue | 71 | 1.5 | S | S | S | S | S | S | R | R | R | R |
| 6 | Intrahepatic bile duct cancer | Colonization | 76 | 1.5 | S | S | S | S | S | S | R | R | R | R |
| 7 | Myopic astigmatism | Skin and soft tissue | 36 | 1 | S | S | S | R | R | S | R | R | R | R |

Supplementary table 3. Subgroup analysis of patients diagnosed with pneumonia; MSSA: methicillin-sensitive S. aureus; MRSA: methicillin-resistant S. aureus

|  |  |  |  |
| --- | --- | --- | --- |
| Patients diagnosed with pneumonia (N, %) | MSSA, N (%) | MRSA, N (%) | P values |
| * With dementia (8, 5.4) * Without dementia (140, 94.6) | 5 (63)  109 (78) | 3 (37)  31 (22) | 0.315 |

Supplementary table 4. Death, readmission and Death or readmission rates at 30, 90, 80 and 365 days. MSSA: methicillin-sensitive S. aureus; MRSA: methicillin-resistant S. aureus

|  |  |  |  |
| --- | --- | --- | --- |
| Survival outcomes | MSSA, N (%) | MRSA, N (%) | P values |
| Death at   * 30 days * 90 days * 180 days * 365 days | 62 (81)  83 (77)  91 (74)  96 (73) | 15 (19)  17 (23)  32 (26)  36 (27) | 0.464  0.048  0.002  <0.001 |
| Readmission at   * 30 days * 90 days * 180 days * 365 days | 57 (85)  132 (83)  175 (82)  217 (82) | 10 (15)  28 (17)  38 (18)  49 (18) | 0.715  0.712  0.551  0.318 |