**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) | 0.4640.0480.002<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) | 0.7150.7120.5510.318 |