**Supplementary Table 1:** Baseline demographics of the patients with AMS recommendations during the ward round

|  |  |
| --- | --- |
| Demographics and clinical characteristics (n = 202) | n (%) |
| **Age**, *median* (IQR) | 63 (51.7-73.4) |
| **Sex** (male: female) | 108 (53.5):94 (46.5) |
| **ICU length-of-stay** (days), *median* (IQR) –  *first ICU review* | 3.5 (2.5-8) |
| **ICU mortality** (n, %) | 13 (6.4) |
| **Antibiotic allergies** (n, %) | 48 (23.8) |
| **Admitting unit** (n, %)  Medical  Surgical | 105 (52.0)  97 (48.0) |
| **Immunocompromised host admitting unit** (n, %)  Liver transplant  Haematology/Oncology | 20 (9.9)  12 (5.9) |
| **Screening swabs** *during current admission* (n, %)a  VRE (vanA or vanB) colonised  MRSA colonised  MDR-GN colonised | 18 (8.9)  0 (0)  5 (2.5) |

VRE, Vancomycin-resistant enterococci; MRSA, Methicillin-resistant *Staphylococcus aureus*; MDR-GN, Multi-drug resistant gram negative

**a** Screening for VRE, MRSA and MDR gram negatives is performed on a weekly basis in ICU patients

**Supplementary Table 2: Potential factors that affect the uptake of recommendations by ICU clinicians**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Recommendations accepted  n (%) | Total | *p* value |
| Immunocompromised patient | 72 (92.3) | **78** |  |
| Non-immunocompromised patient | 283 (84.7) | **334** |  |
| Total | **355** | **412** | 0.10 |
|  |  |  |  |
| ≥ 7 days in ICU | 165 (90.7) | **182** |  |
| < 7 days ICU | 190 (82.6) | **230** |  |
| Total | **355** | **412** | 0.02 |
|  |  |  |  |
| No consultant on ICU-AMS round | 47 (88.7) | **53** |  |
| Consultant on ICU-AMS round | 308 (85.8) | **359** |  |
| Total | **355** | **412** | 0.67 |
|  |  |  |  |
| Antibiotic allergy | 103 (86.6) | **119** |  |
| No antibiotic allergy | 252 (86.0) | **293** |  |
| Total | **355** | **412** | 1.00 |
|  |  |  |  |
| Admitted under a medical unit | 185 (86.9) | **213** |  |
| Admitted under a surgical unit | 170 (85.4) | **199** |  |
| Total | **355** | **412** | 0.78 |
|  |  |  |  |
| MRSA colonised | 7 (100) | **7** |  |
| Not MRSA colonised | 348 (86.0) | **405** |  |
| Total | **355** | **412** | 0.60 |
|  |  |  |  |
| VRE (vanA or vanB) colonisation | 48 (90.6) | **53** |  |
| No VRE colonisation | 307 (85.5) | **359** |  |
| Total | **355** | **412** | 0.40 |
|  |  |  |  |
| MDR-GN colonisation | 15 (93.8) | **16** |  |
| No MDR-GN colonisation | 340 (85.6) | **396** |  |
| Total | **355** | **412** | 0.71 |
|  |  |  |  |
| > 60 years old | 185 (86.4) | **214** |  |
| ≤ 60 years old | 170 (85.9) | **198** |  |
| Total | **355** | **412** | 0.89 |
|  |  |  |  |
| Female | 153 (86.9) | **176** |  |
| Male | 202 (85.6) | **236** |  |
| Total | **355** | **412** | 0.77 |

VRE, Vancomycin-resistant enterococci; MRSA, Methicillin-resistant *Staphylococcus aureus*; MDR-GN, Multi-drug resistant gram negative

**Supplementary Table 3:** Potential factors that affect the uptake of recommendations by ICU clinicians

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical factor** | **Moment 1 (n = 63)**  **Recommendations accepted** | | **Moment 2 (n = 63)**  **Recommendations accepted** | | **Moment 3 (n = 173)**  **Recommendations accepted** | | **Moment 4 (n = 49)**  **Recommendations accepted** | | **Moment 5 (n = 64)**  **Recommendations accepted** | |
| **n (%)** | ***p* value** | **n (%)** | ***p* value** | **n (%)** | ***p* value** | ***p* (%)** | ***p* value** | **n (%)** | ***p* value** |
| Sex (female)  Sex (male) | 22 (95.7)  35 (87.5) | 0.40 | 28 (93.3)  26 (78.8) | 0.15 | 65 (85.5)  80 (82.5) | 0.68 | 9 (81.8)  35 (92.1) | 0.31 | 29 (80.6)  26 (92.9) | 0.28 |
| Age > 60 years  Age ≤ 60 years | 23 (85.2)  34 (94.4) | 0.39 | 27 (84.4)  27 (87.1) | 1.00 | 76 (84.4)  69 (83.1) | 0.84 | 27 (96.4)  17 (81.0) | 0.15 | 32 (86.5)  23 (85.2) | 1.00 |
| MDR GN  No-MDR GN | 6 (100.0)  51 (89.5) | 1.00 | 1 (100.0)  53 (85.5) | 1.00 | 5 (83.3)  140 (83.8) | 1.00 | 2 (100.0)  42 (89.4) | 1.00 | 1 (100.0)  54 (85.7) | 1.00 |
| VRE (vanA or vanB)  No-VRE | 14 (87.5)  43 (91.5) | 0.64 | 5 (100)  49 (84.5) | 1.00 | 16 (88.9)  129 (83.2) | 0.74 | 4 (100)  40 (88.9) | 1.00 | 9 (90.0)  46 (85.2) | 1.00 |
| MRSA  No -MRSA | 3 (100.0)  54 (90.0) | 1.00 | 0 (0)  54 (85.7) | 1.00 | 2 (100.0)  143 (83.6) | 1.00 | 1 (100.0)  43 (89.6) | 1.00 | 1 (100.0)  54 (85.7) | 1.00 |
| Medical admitting  Surgical admitting | 29 (90.6)  28 (90.3) | 1.00 | 34 (85.0)  20 (87.0) | 1.00 | 73 (86.9)  72 (80.9) | 0.31 | 23 (85.2)  21 (95.5) | 0.36 | 26 (86.7)  29 (85.3) | 1.00 |
| Antibiotic allergy  No antibiotic allergy | 22 (84.6)  35 (94.6) | 0.22 | 9 (81.8)  49 (86.5) | 0.65 | 46 (88.5)  99 (81.8) | 0.37 | 13 (86.7)  31 (91.2) | 0.64 | 15 (88.2)  40 (85.1) | 1.00 |
| ICH  Non-ICH | 14 (87.5)  43 (91.5) | 0.64 | 7 (100.0)  47(83.9) | 0.58 | 31 (88.6)  114 (82.6) | 0.61 | 6 (100.0)  38 (88.4) | 1.00 | 14 (100.0)  41 (82.0) | 0.19 |
| >7 days ICU  < 7 days ICU | 33 (89.2)  24 (92.3) | 1.00 | 22 (75.9)  32 (94.1) | 0.07 | 71 (89.9)  74 (78.7) | 0.06 | 23 (82.1)  21 (100) | 0.06 | 18 (85.7)  37 (86.0) | 1.00 |
| No ICU-AMS consultant ICU-AMS consultant | 2 (100.0)  55 (90.2) | 1.00 | 2 (66.7)  52 (86.7) | 0.38 | 4 (80.0)  141 (83.9) | 0.59 | 0 (0)  44 (89.8) | 1.00 | 4 (100.0)  51 (85.0) | 1.00 |

VRE, Vancomycin-resistant enterococci; MRSA, Methicillin-resistant *Staphylococcus aureus*; MDR-GN, Multi-drug resistant gram negative; ICH, immunocompromised host