1231. Patient-Level Factors Associated with Vancomycin-Resistant Enterococci Transmission to Healthcare Workers Gowns or Gloves

Disclosures. All authors: No reported disclosures.

Methods. We sequenced our 55 representative isolates and selected other 285 genomes, from public databases, obtained across different regions (36 countries), different sources (animal, commensal, and clinical strains) and a wide range of dates of isolation (1946–2017). We characterized the genomes by presence/absence of resistance, virulence and mobile elements, and of CRISPR-Cas systems. We analyzed the phylogeny of the entire population, selected the genomes belonging to clade A to examine recombination patterns and performed Bayesian molecular clock analysis excluding recombinant regions.

Results. Two major clades were identified, as previously reported. However, a higher degree of variation in clade A was found. Indeed, we identified a subclade (sub-clade I) that diverged ~894 years ago, and clearly distinguished clinical isolates from those of animal origin (distributed among a number of smaller early-branaching sub-clades). A further split within the clinical subclade (subclade II) that diverged around ~371 years ago was also evident. Latin American isolates were distributed within sub-clades I (48%) and II (44%). Isolates in “animal” branches exhibited an average recombination of 34 Kbp, where it was 5 Kbp and 21 Kbp for subclades I and II, respectively. More resistance determinants were found in subclade II (62%), followed by I (54%) and absence of cas was the norm in the clinical subclades.

Conclusion. Inclusion of E. faecium isolates from diverse geographical region supports a continuous evolution of these organisms causing human infections. Important evolutionary events seem to favor emergence of novel subclades capable to cause important morbidity and mortality.

1233. An Automated E-mail Notification Systemic to Infectious Disease Specialists and Effect on the Management of Staphylococcus aureus Bacteremia in a Community Hospital setting

Disclosures. All authors: No reported disclosures.

Methods. Cases of staphylococcus aureus bacteremia were identified from the microbiology database by at least one positive blood culture. The automated e-mail notification system was implemented in December 2014. ID providers were encouraged to verbally contact primary providers for positive results. Cases of bacteremia prior to implementation of the automated notification system were compared with those post-intervention. Patients under age 18 were excluded. Data gathered included mortality, re-admission rates, and compliance with IDSA guidelines. Due to complications from a lack of ID consultation, a notification system consisting of automated e-mails to ID providers was implemented. The objective of this study was to review the impact of the automatic notification to ID consultants with positive blood culture results in a community hospital system.

Results. There were no significant differences in inpatient mortality (9 vs. 18%, P = 0.180), 30-day mortality between the two groups (18 vs. 20%, P = 0.815). The 30-day readmission rate among surviving patients was reduced by 50% (40% vs. 19%, P = 0.014). Compliance with antibiotic duration in complicated bacteremia increased post-intervention (57% vs. 85%, P = 0.04).

Conclusion. An automatic notification to ID specialists reporting patients with Staphylococcus aureus bacteremia led to improved compliance with IDSA guidelines regarding antibiotic duration and reduced re-admission rates. There was no effect on overall mortality.

Table 1: Patient Demographics

|                          | Pre Intervention (N = 57) | Post Intervention (N = 60) | Pvalue |
|--------------------------|--------------------------|----------------------------|--------|
| Average patient age (years) | 64.4                     | 62.2                       | 0.448  |
| Male                     | 63%                      | 63%                        | 1      |
| Immunosuppressed         | 16%                      | 13%                        | 0.80   |
| Complicated bacteremia   | 70%                      | 69%                        | 1      |

Table 2: Patient Outcomes

|                          | Preintervention (N = 57) | Postintervention (N = 60) | Pvalue |
|--------------------------|--------------------------|----------------------------|--------|
| Inpatient mortality      | 9%                       | 18%                        | 0.190  |
| 30-day mortality (%)     | 18%                      | 20%                        | 0.815  |
| Readmitted within 30 days| 40%                      | 19%                        | 0.014  |
| Bedside ID consult       | 75%                      | 78%                        | 0.888  |
| Appropriate antibiotic duration | 57%                   | 85%                        | 0.04   |

All authors: No reported disclosures.