Session: 236. Healthcare Epidemiology: Epidemiologic Methods
Saturday, October 6, 2018: 12:30 PM

Background. Information on the most current status of antimicrobial resistance (AMR) in local and national levels has critical importance. However, collection and analysis of a large number of antimicrobial susceptibility test (AST) results often results in additional workload in healthcare facilities and latency in final reporting. We sought to develop an automated nationwide surveillance network in Korea.

Methods. Data collection servers were set up at each participating institutions, which collects AST results of every bacterial isolate from blood, cerebrospinal fluids, urine, and respiratory specimens. Collected results are anonymized and transmitted to central data server every day without human input. End-user can perform various analyses using data warehouse server through web interface. Only first isolates of same species from individual patients were included in analysis.

Results. A total of 19 hospitals located in various regions in Korea participated to the network. From January 2015 through December 2017, AST results of 347,356 isolates were collected. The proportion of MRSA among *S. aureus* (n = 17,761) was 65.3%, which declined gradually from 71.5 to 62.3% during study period (P < 0.001). The proportion of VRE increased from 29.3 to 36.3% (P = 0.001). Resistance rates of *E. coli* (n = 63,628) to third and fourth generation cephalosporins, fluoroquinolone, and piperacillin–tazobactam were 31.6, 23.0, 44.0, and 4.2%, respectively. Resistance rates of *K. pneumoniae* (n = 16,875) to same classes were 32.2, 28.1, 31.0 and 19.1%, respectively. Among *E. coli* and *K. pneumoniae*, 0.4 and 4.3% were resistant to carbapenem. Resistance rates of *P. aeruginosa* (n = 12,895) to carbapenem was 30.5%. However, 72.7% of *A. baumannii* isolates (n = 9,885) were resistant to carbapenem. Colistin resistance rate was still low at 0.5%.

Conclusion. We have established a fully automated nationwide surveillance network for AMR in Korea. Our system provided data on the most current status of AMR, which revealed increase in resistance rates among major Gram-negative pathogens compared with previous studies.

Figure 1. Schematic diagram of the Korean Antimicrobial Resistance Surveillance Network (KARSNet).

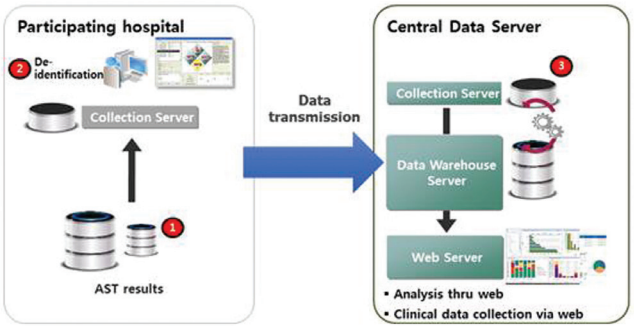


Figure 2. Temporal trends of the resistance rates of *S. aureus* and *E. faecium*.

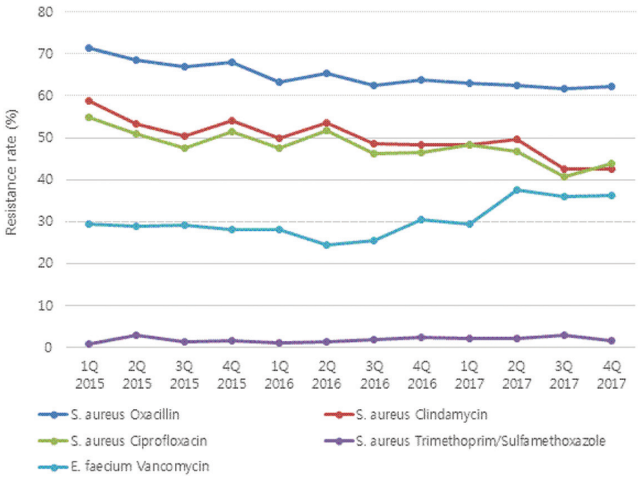
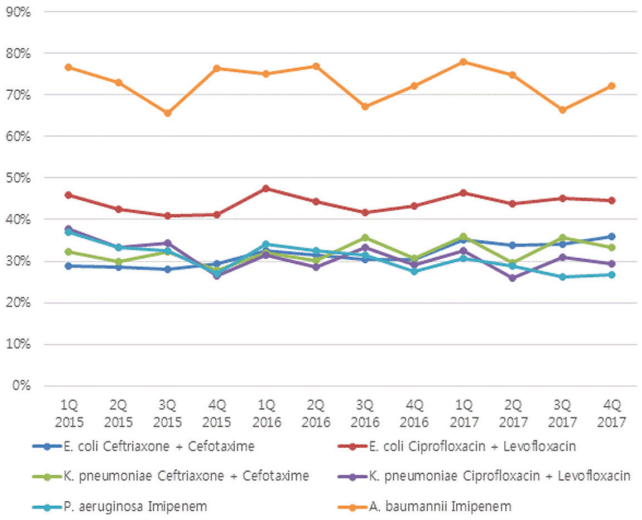


Figure 3. Temporal trends of the resistance rates of major Gram-negative species.



Disclosures. **All authors:** No reported disclosures.

2150. Discontinuation of *Vancomycin-Resistant Enterococci* (VRE) Surveillance and Contact Isolation in ICU and Transplant Units

Sandra Carlino, BS[1]; Elizabeth Robilotti, MD, MPH[2] and Mini Kamboj, MD[2]; [1]Infection Control, Memorial Sloan Kettering Cancer Center, New York, NY, [2]Memorial Sloan Kettering Cancer Center, New York, NY

Session: 236. Healthcare Epidemiology: Epidemiologic Methods
Saturday, October 6, 2018: 12:30 PM

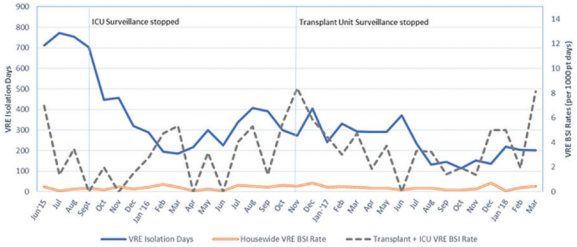
Background. The utility of active surveillance and contact isolation of VRE colonized individuals has not been established in non-outbreak and hyperendemic settings. The practice is onerous and resource intensive, with a hospital wide impact on patient flow. There is growing body of evidence suggesting that routine isolation of VRE colonized patients may not be beneficial. At MSKCC, VRE colonization rates in BMT and ICU units are ~ 33%, individuals with colonization only account for 80 % of all new VRE cases. Active surveillance had not shown any significant reduction in incident VRE. The objective of this study was to analyze the first year after discontinuation of active surveillance and routine contact precautions for VRE in the ICU. Outcomes assessed were house wide VRE BSI rate, unit specific BSI rates, and VRE-related nosocomial outbreaks. VRE-specific isolation days were simultaneously monitored.

Methods. Beginning in September 2015, we discontinued active VRE surveillance and isolation of colonized individuals in our 20 bed ICU, followed a year later by our 25-bed transplant unit. VRE BSI rates were observed for a 12-month period following these changes.

Results. The baseline house wide VRE BSI rate was 0.31/1,000 patient days. After discontinuation of practice in ICU, the ICU rate remained unchanged over the following 12 months (pre: 0.88/1,000 patient days vs. post: 0.77/1,000 patient days; P value = 0.83). No significant difference was seen in house wide or unit specific rates after the policy was subsequently implemented in the BMT unit (Figure 1). No VRE-related outbreaks were detected. There was a 50% absolute reduction in isolation days for VRE between the pre- and post-intervention periods.

Conclusion. Discontinuation of active surveillance and contact isolation of colonized individuals did not result in an increase in incidence of VRE BSI rates in a hyperendemic setting. A reduction in isolation beds facilitated patient flow, especially access to critical care services.

Figure 1



Disclosures. **All authors:** No reported disclosures.