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BACKGROUND
- Healthcare-associated infections (HAIs) are serious patient safety issue in hospitals worldwide, affecting 5%-10% of hospitalized patients
- Deadly for patients in intensive care units (ICUs)
- Device-associated HAI (DA-HAI) surveillance exists in most hospitals
- DA-HAIs account for up to 23% of HAIs in ICUs and about 40% of all hospital infections
- This study aims to identify DA-HAI rates among group of selected hospitals in KSA from 2013 – 2016
- Study focuses on central line-associated blood stream infections (CLABSI), ventilator-associated pneumonia (VAP), and catheter-associated urinary tract infections (CAUTI)
- Results will be used for comparison, benchmarking, and detecting areas to focus on for improvement

METHODS
- Analyzed secondary data from 12 medical/surgical intensive care units (M/SICUs) and two cardiac care units (CCUs) from 12 Ministry of Health (MoH) hospitals from different regions in the Kingdom of Saudi Arabia (KSA)
- Data reported by infection control practitioners to MoH via electronic International Nosocomial Infection Control Consortium (INICC) system

RESULTS
- 6,178 ICU patients with 13,492 DA-HAIs during 2013 – 2016
- Average length of stay (LOS) was 10.7 days (range 0 to 379 days)
- VAP most common DA-HAI (57.4%), followed by CAUTI (28.4%), and CLABSI (14.2%)
- No CLABSI cases in CCUs; CAUTI reported from 1 – 2.6 per 1000 device-days; VAP did not occur in Hospital B but occurred 8.1 times per 1000 device-days in the CCU in Hospital A
- In M/SICUs, CLABSI varied between hospitals from 2.2 to 10.5 per 1000 device-days; CAUTI occurred from 2.3 to 4.4 per 1000 device-days, while VAP had highest rates, from 8.9 – 39.6 per 1000 device-days
- Most hospitals had high device-utilization rates: 75th – 90th percentile of NHSN standard and 50th – 75th percentile of INICC standard

CONCLUSION
- Device-associated CAUTI and VAP infection rates and device-utilization ratios were higher than NHSN benchmarks in the study’s CCUs and M/SICUs
- CLABSI rates were lower

RECOMMENDATIONS
- Ongoing monitoring of infection control practices
- Comprehensive education
- More sensitive and specific healthcare safety network

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