This study aims to identify DA-HAI rates among a group of selected hospitals in the Kingdom of Saudi Arabia (KSA), 2013-2016” Said metal (2017).

Abstract:

Healthcare-associated infections (HAIs) including device-associated HAI (DA-HAI) are a serious patient safety issue in hospitals worldwide, affecting 5-10% of hospitalized patients and deadly for patients in intensive care units (ICUs). (Vincent, 2003; Al-Tawfiq et al., 2013; Hu et al., 2013). DA-HAIs account for up to 23% of HAIs in ICUs and about 40% of all hospital infections (i.e. central line-associated blood stream infections, ventilator-associated pneumonia, and catheter-associated urinary tract infections). This study aims to identify DA-HAI rates among a group of selected hospitals in the Kingdom of Saudi Arabia (KSA), 2013-2016. Secondary data was analyzed 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 KSA. These data were reported by infection control practitioners to the MoH via electronic International Nosocomial Infection Control Consortium (INICC) systems in each hospital. Among 6178 ICU patients with 13,492 DA-HAIs during 2013-2016, the average length of stay (LOS) was 10.7 days (range 0-379 days). VAP was the most common DA-HAI (57.4%), followed by CAUTI (28.4%), and CLABSI (14.2%). In CCUs there were no CLABSI cases; CAUTI was reported from 1 to 2.6 per 1000 device-days; and 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, variations occurred among time periods, hospitals, and KSA provinces. 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 the highest rates, from 8.9 to 39.6 per 1000 device-days. Most hospitals had high device-utilization ratios (DURs) (from the 75th to 90th percentile of National Healthcare Safety Network (NHSN)'s standard and the 50th to 75th percentile of INICC's). This study showed higher device-associated infection rates and higher device-utilization ratios in the study’s CCUs and M/SICUs than NHSN benchmarks. To reduce the rates of infection, ongoing monitoring of infection control practices and comprehensive education are required. Furthermore, a sensitive and specific national healthcare safety network is needed in KSA.
Reference:
