The incidence of VAP, CAUTI, and CLABSI were high in ICUs, and multi-drug resistant organisms were the primary pathogens of NI” Li et al (2017).

Abstract:

BACKGROUND: Nosocomial infections (NIs) impact care and costs in hospitals across the globe. There are minimal data on targeted surveillance of NI in intensive care units (ICUs), and data specific to the risk factors for NI are especially limited.

METHODS: One hundred seventy-seven secondary and tertiary hospitals performed NI targeted surveillance in their ICUs. The data were collected and summarized by Minke software, then fed back once per quarter.

RESULTS: The incidence of NI appeared to decrease, and the incidence of NI per 1000 patient-days and adjusted incidence were 25.63‰ and 7.41‰ in 2010, and 9.73‰ and 2.76‰ in 2015, respectively. The NI incidence in general hospitals was higher than in specialized hospitals. The incidence of central line-associated bloodstream infection (CLABSI) and catheter-associated urinary tract infection (CAUTI) appeared to decrease, and especially
the incidence of ventilator-associated pneumonia (VAP), which decreased from 20.33‰ to 2.76‰. There was no statistically significant difference among ICUs. The six most common pathogen-caused NIs found were Acinetobacter baumannii (AB), Klebsiella pneumoniae (KP), Pseudomonas aeruginosa (PA), Staphylococcus aureus, Candida albicans, and Escherichia coli (E. coli). The isolation rate of carbapenem-resistant gram-negative bacilli were carbapenem-resistant AB 80.53%, carbapenem-resistant PA 39.94%, carbapenem-resistant KP (CR-KP) 24.86%, and carbapenem-resistant E. coli 9.23%. The isolation rate of methicillin-resistant S. aureus (MRSA) was 66.30%. The increasing trend of CR-KP was statistically significant as analyzed by the regression model.

CONCLUSIONS: The incidence of VAP, CAUTI, and CLABSI were high in ICUs, and multi-drug resistant organisms were the primary pathogens of NI. The implementation of targeted surveillance can determine the risk factors of NI so that effective intervention measures can be taken to reduce the incidence of NI in ICUs patients.

Reference:


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