

Epidemiological and microbiological patterns of HAIs

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Introduction & Aim: To analyze the epidemiological and microbiological patterns of HAIs and their relation to the Length of Hospital Stay (LOS) and underlying patient clinical status in tertiary hospitals based on the surveillance system of Center for Disease Control (CDC) and prevention. And also to assess the healthcare workers' role in transmission of HAIs, Healthcare-associated Infections (HAIs) are a national health challenge.

Method & Results: Thirteen ICUs in 4 university hospitals contributed to 93280 patient days and revealed (36.7%) patients with HAIs (33.1%) were Central Line Associated-bloodstream Infections (CLABSI), 34.4% were Ventilator Associated Pneumonia (VAP), Surgical Site Infections (SSIs) represented 19.1% and 13% were urinary tract infections. CLABSI had the highest incidence of both the rate 31/53 (58.5%). The total LOS in patients with HAIs (14.3 ± 23.8) was significantly higher than CAIs (6.1 ± 2.5) and was observed in CLABSI (29.6 ± 18.3). The most frequent underlying medical conditions in CLABSI and VAP were DM (23.1%) and (33.3%) and cirrhotic patients (17.3%) and (10.4%) respectively. VAP had the highest in hospital mortality rate (42.6%).

Conclusion: HAI is a major burden in tertiary hospitals in Egypt. In our hospitals, there is a high incidence of *S. aureus* associated-BSI. In addition, there is a co-presence of gram negative organisms with high rate multidrug resistance mandates the commitment to antimicrobial stewardship.

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