

6TH ANNUAL BACTERIOLOGY AND PARASITOLOGY MEETING

September 13-14, 2017 Singapore

The rise of antimicrobial resistance and the epidemiology of multidrug resistant hospital acquired bloodstream infections in a tertiary care hospital in Nepal

Abhilasha Karkey

Oxford University Clinical Research Unit, Nepal

Statement of the Problem: In 2011 Patan Hospital in Nepal witnessed massive outbreaks of NDM-1 Klebsiella pneumoniae sepsis among neonates in the neonatal intensive care unit. Since then, massive efforts have been made to understand the epidemiology of microorganisms causing bloodstream infections within the local population. Through a 23 year retrospective data analysis, we are trying to understand what significant changes have occurred in the spectrum of organisms and their susceptibility patterns over the years. Additionally, through a prospective study, we will try to understand the epidemiology of multidrug resistant hospital acquired bloodstream infections and identify the risks for bloodstream infections and mortality within Patan Hospital.

Methodology & Theoretical Orientation: A 23 year retrospective analysis of all blood cultures taken at Patan Hospital between April 1992 and December 2014 were analyzed. To measure the overall impact of antimicrobial resistance on the outcome of BSI, a prospective hospital wide study is being conducted. Additionally all neonates admitted to the NICU are being enrolled to investigate the risk factors for development of BSI.

Findings: 23 year data documents showed changes in the epidemiology of bloodstream infections in Patan hospital from 1992 to 2014 which include (i) an increase in absolute number of blood cultures positive for Enterobacteriaceae non Salmonella and Gram positive, (ii) an overall increase in resistance to single antimicrobials between 1992 and 2014, (iii) an increase in multidrug resistance (MDR), including an acceleration in the rate of MDR acquisition for Gram positive, and (iv) the high prevalence of MDR isolates in community-acquired infections.

akarkey@oucru.org

Notes: