

Achieving Appropriate Use of Antibiotics through Pharmacists' Intervention at Practice Point: An Indian Study Report

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Abstract : Antibiotic resistance AR is a global issue, India started to redress the issues of antibiotic resistance late and it plans to have: active surveillance of microbial resistance and promote appropriate use of antibiotics. The present study attempted to achieve appropriate use of antibiotics through pharmacists' intervention at practice point. In a quasi-experimental prospective cohort study, the cases with bacteremia from four hospitals were identified during 2015 and 2016 for intervention. The pharmacists centered intervention: active screening of each prescription and comparing with the selection of antibiotics with susceptibility of the bacteria. Wherever irrationality noticed, it was brought to the notice of the treating physician for making changes. There were two groups: intervention group and control group without intervention. The active screening and intervention in 915 patients has reduced therapeutic regimen time in patients with bacteremia. The intervention group showed the decreased duration of hospital stay 3.4 days from 5.1 days. Further, multivariate modeling of patients who were in control group showed that patients in the intervention group had a significant decrease in both duration of hospital stay and infection-related mortality. Unlike developed countries, pharmacists are not active partners in patient care in India. This unique attempt of pharmacist' invention was planned in consultation with hospital authorities which proved beneficial in terms of reducing the duration of treatment, hospital stay, and infection-related mortality. This establishes the need for a collaborative decision making among the health workforce in patient care at least for promoting rational use of antibiotics, an attempt to combat resistance.

Keywords : antibiotics resistance, intervention, bacteremia, multivariate modeling

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