The Utility of Point Prevalence Surveys in Hospitals in Mexico and India

Antimicrobial resistance (AMR) is a growing global health issue that results largely from over-prescribing and inappropriate use of antibiotics. A lack of surveillance systems further contributes to AMR spread. Thus, collecting hospital data on antibiotic resistance and antibiotic use helps to implement and evaluate the impact of antimicrobial stewardship (AMS) interventions, thereby contributing to fight AMR.

A point prevalence survey (PPS) on antibiotic use is a way to collect data at a specific point in time and is useful to study antibiotic prescription patterns and identify objectives for optimization of antibiotic use. The Global-PPS initiative and WHO propose methodologies to perform PPSs in hospitals.[2,3]

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A study published in the ***Indian Journal of Pharmacy and Pharmacology*** aimed to gather baseline information to assess antimicrobial consumption practices across six departments in a **tertiary care hospital in India**. Researchers developed a modified version of a patient data collection form proposed by Global-PPS and collected data of all patients in the ward at 8:00 am. Antimicrobial use was found to be relatively low (22.71%), with a mean of 1.62 antimicrobials per patient, although a mean of 12.3% of patients were receiving 3 or more antimicrobials.

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Another study published in ***Infection and Drug Resistance*** aimed to describe antimicrobial use in **four tertiary care hospitals in Mexico** by conducting Global-PPS and WHO PPS methodologies. The prevalence of patients with prescribed antimicrobials ranged from 47.1% to 91.3%. The most prescribed antibiotics were for systemic use and antibiotic treatments were empirical with no planned duration or review dates. Excessive and prolonged use of certain antibiotics (i.e., ceftriaxone) belonging to the WHO "Watch"* group was also observed.

Overall, point prevalence surveys are considered to be a valuable tool, responding to an important need to collect antibiotic resistance data, optimize antibiotic prescribing and assess the impact of antimicrobial stewardship interventions.

* WHO "Watch" group antibiotics: use is only recommended for a specific and limited number of indications due to their elevated risk of resistant-bacteria selection

"Our point prevalence study [in India] was able to facilitate conducting of point prevalence survey in high patient volume tertiary care hospital with paper based medical record system and also depicted the baseline parameters of intervention for instituting future action and policy changes," concluded the study authors.[1]

"This study describes the extensive use of antimicrobials and broad-spectrum antibiotics for systemic use in Mexican hospitals, along with the presence of resistant pathogens to the antibiotics frequently used in the hospitals surveyed," concluded the study authors.[4]

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