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HOW INTEGRATED INFORMATION SYSTEMS CAN EXPEDITE MICROBIOLOGY LABORATORY WORK IN ANTIBIOTIC STEWARDSHIP PROGRAMS

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I want to apply for a travel fellowship: No

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Introduction: Integrated Information Systems have proven to be useful in Antibiotic Stewardship Programs (ASP) since it increases availability of information for healthcare professionals and have been described as effective in reducing antimicrobial consumption without compromising healthcare quality, reducing antibiotic resistance and costs. However, an important amount of ASP information are results from Microbiology Laboratory. In fact, a successful ASP largely depends on the active involvement of the Microbiology Laboratory and on its capacity to deliver information.

Objectives: To describe the importance of the Microbiology Laboratory in ASP, and how integrated information systems can leverage it.

Methods: A review of literature was done based on the following keywords: Microbiology Laboratory, Antibiotic Stewardship Program, Microbiology, Antibiotics, and Information systems.

Results: The role of the Microbiology Laboratory in an ASP covers microbial isolation and identification, determination of antimicrobial susceptibility patterns, epidemiological surveillance and outbreak detection, education, and report of results. Despite being resources consuming, it can be leveraged by integrated information systems. Report of results - Making microbiology results accessible through an integrated information system is an advantage by ensuring that all results are available in an organized, easily accessible, and timely manner. Adequately integrated information systems facilitate the exchange of clinical and microbiological data between clinicians and laboratory. Epidemiological surveillance and outbreak detection - Information systems that incorporate information about the patient, disease, infectious agent and antimicrobial susceptibility are optimal to build up antimicrobial resistance surveillance networks, turning outbreaks detection easier and facilitating the retrospective report of results.

Conclusion: The Microbiology Laboratory can enhance its work by using integrated information systems for surveillance, report of results and timely communication.

Disclosure of Interest: None Declared