Electronic Surveillance of Healthcare-Associated Infections with MONI-ICU - A Breakthrough Compared to Conventional Surveillance Systems

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Background: Surveillance of clinical entities such as healthcare-associated infections (HCAI) by conventional techniques is a time-consuming task for highly trained experts. Such are neither available nor affordable in sufficient numbers on a permanent basis. Nevertheless, expert surveillance is a key parameter for good clinical practice, especially in intensive care medicine. MONI-ICU (monitoring of nosocomial infections in intensive care units) has been developed methodically and practically in a stepwise manner over the last 20 years and is now a reliable tool for clinical experts. It provides an almost real-time view of clinical indicators for HCAI—at the cost of almost no additional time on the part of surveillance staff or clinicians. We describe the use of this system in clinical routine and compare the results generated automatically by MONI-ICU with those generated in parallel by trained surveillance staff using patient chart reviews and other available information (“gold standard”). A total of 99 ICU patient admissions representing 1007 patient days were analyzed. MONI-ICU identified correctly the presence of an HCAI condition in 28/31 cases (sensitivity, 90.3%) and their absence in 68/68 of the non-HCAI cases (specificity, 100%), the latter meaning that MONI-ICU produced no “false alarms”. The time taken for conventional surveillance in 52 ward visits was 82.5 hours. MONI-ICU analysis of the same patient cases, including careful review of the generated results, required only 12.5 hours (15.2%).

Prospective study on the effectiveness of preventive measures for hemato-oncologic patients undergoing stem cell transplantation during a period of hospital construction

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Objective. Aspergillus spp. are saprophytic, spore-forming fungi ubiquitous in the environment. In patients with altered immunity, mycelial growth may result in invasive aspergillosis. Construction work, renovation, demolition or excavation activities within a
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