



To estimate the incidence and epidemiology of catheter-related bloodstream infections (CRBSIs) on a national scale by using prospective epidemiological data from the Swiss Antibiotic Resistance Surveillance System (ANRESIS)” Buetti et al (2018).

Abstract:

OBJECTIVES: To estimate the incidence and epidemiology of catheter-related bloodstream infections (CRBSIs) on a national scale by using prospective epidemiological data from the Swiss Antibiotic Resistance Surveillance System (ANRESIS).

DESIGN: Observational study.

SETTING: National surveillance from 2008 to 2015 of acute hospitals in Switzerland.

PARTICIPANTS: We included acute Swiss hospitals that sent blood cultures and catheter tip culture results on a regular basis during the entire study period to the ANRESIS database.

OUTCOME MEASURE: A catheter-related bloodstream infection (termed ‘modified CRBSI’, mCRBSI) was defined as isolating the same microorganism with identical antibiogram from ≥ 1 blood cultures (performed ± 7 days around the catheter removal) as the one recovered from the catheter tip. Incidence rates of mCRBSI were calculated per 1000 admissions.

RESULTS: From 2008 to 2015, the mCRBSI incidence rate decreased from 0.83 to 0.58 episodes/1000 admissions (-6% per year, $p < 0.001$). Coagulase-negative staphylococci, *Staphylococcus aureus* and fungi all exhibited decreasing trends, while rates of enterococci and Gram-negative bacteria remained stable. **CONCLUSIONS:** The overall incidence of mCRBSI in Switzerland is decreasing; however, the incidence of mCRBSI due to Enterococci and Gram-negative micro-organisms did not change over time. These pathogens may grow in importance in catheter-related infections, which would have clinical implications for the choice of empirical treatment.

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Reference:

Buetti, N., Lo Priore, E., Atkinson, A., Widmer, A.F., Kronenberg, A. and Marschall, J. (2018) Catheter-related infections: does the spectrum of microbial causes change over time? A nationwide surveillance study. *BMJ Open*. 8(12), p.e023824.

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