## Saving current and future lives - how to give safe treatment now while preserving antibiotic resources for future generations?

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The frequency of ESBL-producing *E. coli* in blood cultures is increasing in Norway. According to the antimicrobial surveillance report for 2018 in our hospital, the level of ESBL-producing *E. coli* in bloodstream infections (BSI) is now 14 %, making it difficult to recommend cephalosporins as general empirical treatment for invasive infections. This project aims at finding a way to preserve a rational antibiotic prescription practice without endangering the health and lives of our patients. We will perform a retrospective case control study to identify risk factors for ESBL-producing *E. coli* BSI. We hypothesize that in our modern hospital, the differences in mortality of patients with ESBL-producing *E. coli* BSI compared to patients with non-ESBL *E. coli* BSI is negligible, and that new procedures with rapid blood culture diagnostics and susceptibility testing techniques make it safe to maintain 3rd generation cephalosporins as empirical treatment of BSI in most cases, depending on certain host factors.