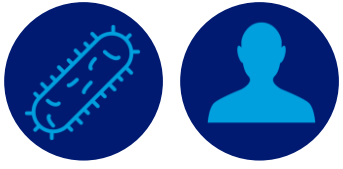
Visual Abstract

Antimicrobial Resistance (AMR) and Mortality from *E. coli* Bloodstream Infection

AMR is associated with substantially increased mortality

14,548
E. coli bacteremia episodes



13,706
Unique patients

This study evaluated all episodes of *E.coli* bloodstream infection in Ontario, Canada between 2017-2020, and measured the outcome of 90 day mortality among those with resistant versus sensitive bacteria for each of 8 commonly used antibiotic classes.

AMR is associated with substantially increased mortality, particularly for resistance to classes commonly used as empiric treatment.

Odds Ratio of Mortality

Unadjusted and adjusted for demographics, comorbidities and healthcare exposure

	Unadjusted	Adjusted
Third Generation Cephalosporins	**1.64** (95%CI 1.47-1.82)	**1.29** (95%CI 1.15-1.46)
β-Lactam/β-Lactamase Inhibitor	**1.69** (95%CI 1.52-1.89)	**1.28** (95%CI 1.13-1.45)
Carbapenems	**3.11** (95%CI 1.52-6.34)	**2.06** (95%CI 0.91-4.66)
Difficult to Treat Resistance*	**3.71** (95%CI 1.46-9.41)	**2.58** (95%CI 0.87-7.66)

*resistance to carbapenems, fluoroquinolones, and at least one of third generation cephalosporins or beta-lactam beta-lactamase inhibitors

Daneman N, Fridman D, Johnstone J, Langford BJ, Lee SM, MacFadden DM, Mponponsuo K, Patel SN, Schwartz KL, Brown KA. eClinicalMedicine. 2022

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