

My top 5 takes

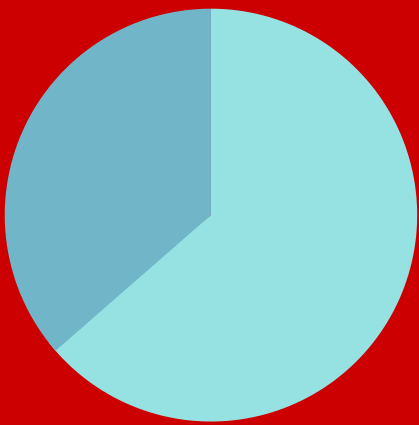
on a paper titled: **Utility of Prior Cultures in Predicting Antibiotic Resistance of Bloodstream Infections Due to Gram-negative Pathogens: A Multicenter Observational Cohort Study**

Individual antibiogram

May help in empiric treatment by predicting antibiotic resistance

This study looked at the values of patients' previous GNB blood culture in predicting current antibiotic resistance

Toronto
NUHS
36.4%



Chicago
SHSC
63.6%

Two hospitals (Canada and USA)

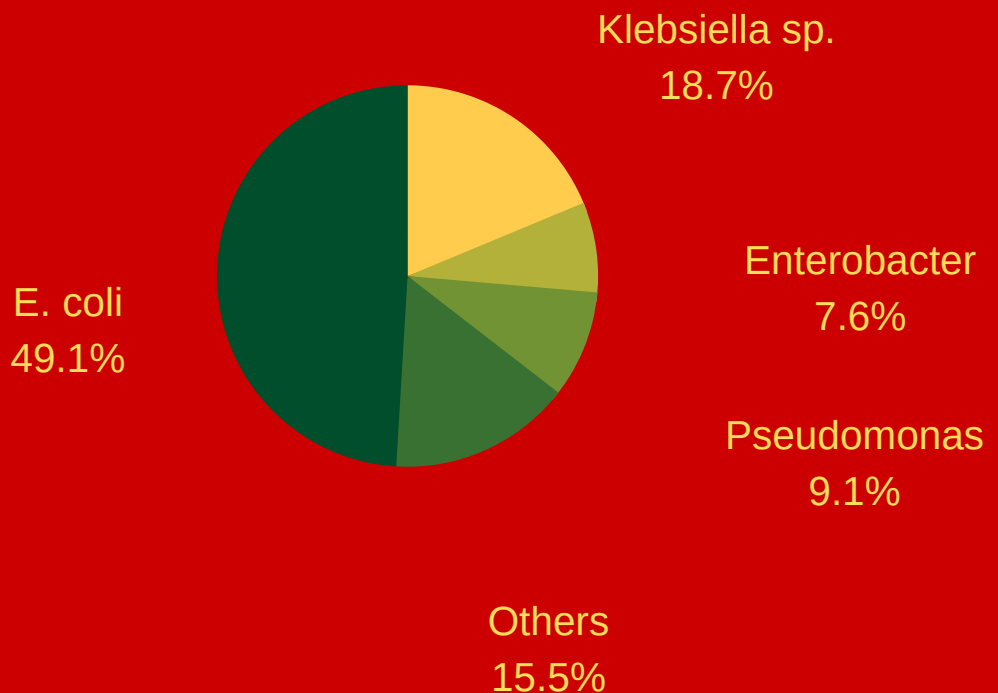
A total of 2035 monomicrobial Gram-neg. bacteremia cases were included.

Researchers then did a "look back" on previous + blood culture results in the preceding 12 months.

Univariate and multivariate analysis looking for the predictors of antibiotic resistance in the current blood culture from both the patients' and the (previous) bugs' factors were carried out.

What predicts resistance?

The bugs



High specificity!

Prior positive blood culture gave a specificity of 92% with sensitivity of 50%. In this study every 1 in 4 patients had a positive GNB blood culture before and the resistance pattern in the previous culture would be the same with the current one (close to 100 %)

Thus, tracing previous blood culture results would help guide the choice of current empiric treatment **significantly**