# Article information:

A Pragmatic Machine Learning Model To Predict Carbapenem Resistance - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8218615/>

# Article summary:

1. The article discusses the development of a machine learning model to predict carbapenem resistance.

2. The model was developed using data from 68,472 patients admitted to a tertiary-care academic medical center between 2012 and 2017.

3. The model had an area under the receiver operating characteristic curve of 0.846, with a sensitivity of 30%, positive predictive value (PPV) of 30%, and negative predictive value of 99%.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy in its reporting, as it provides detailed information about the development of a machine learning model to predict carbapenem resistance. The authors provide clear descriptions of the methods used for data collection and analysis, as well as the results obtained from the model. Furthermore, they provide evidence for their claims by citing relevant studies in the field.

However, there are some potential biases that should be noted. First, the study was conducted at a single tertiary-care academic medical center, which may limit its generalizability to other settings or populations. Additionally, while the authors cite relevant studies in support of their claims, they do not explore any counterarguments or alternative perspectives on antibiotic resistance or machine learning models for predicting CR infections. Finally, while the authors note that inappropriate antibiotic coverage can lead to antibiotic resistance, they do not discuss any potential risks associated with overuse or misuse of antibiotics in clinical practice.

# Topics for further research:

* Antibiotic resistance risks
* Machine learning models for predicting CR infections
* Generalizability of machine learning models
* Overuse of antibiotics in clinical practice
* Alternative perspectives on antibiotic resistance
* Counterarguments to machine learning models for predicting CR infections

# Report location:

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