

Sepsis prediction: is it time to catch the hidden killer?

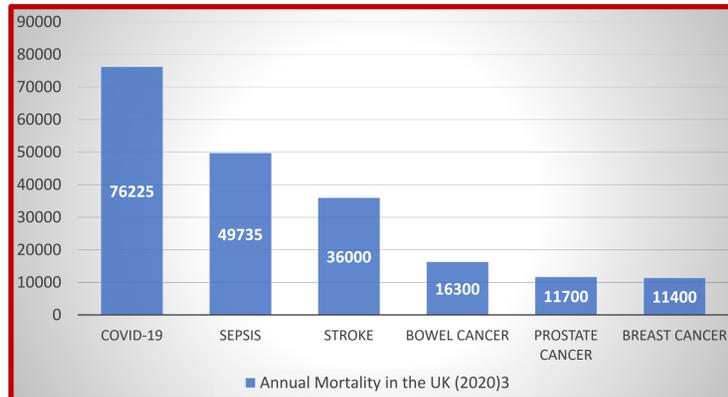
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Problem:

- Sepsis is a leading cause of in-hospital mortality and morbidity.
- Sepsis costs the UK economy **15.6 billion pounds** annually.¹
- Sepsis prevention can save **170 million pounds** annually for the NHS and **1.25 million pounds** annually in a medium-sized general hospital.²



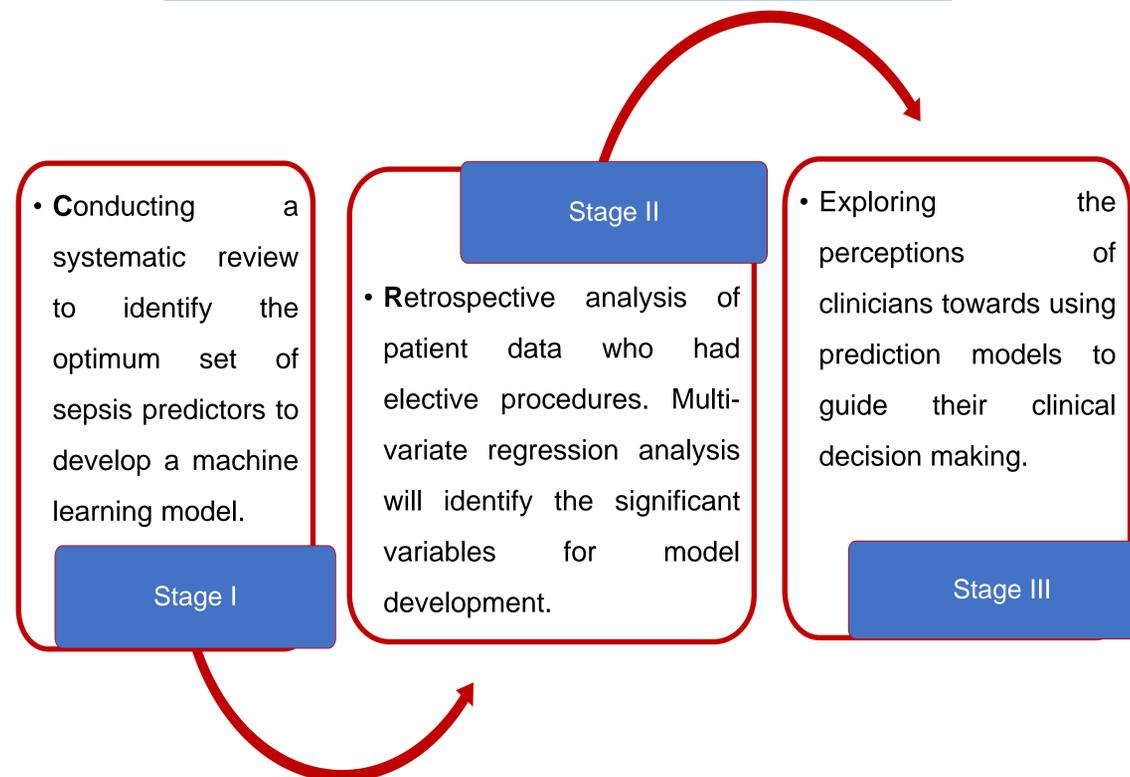
Solution:

Machine learning model

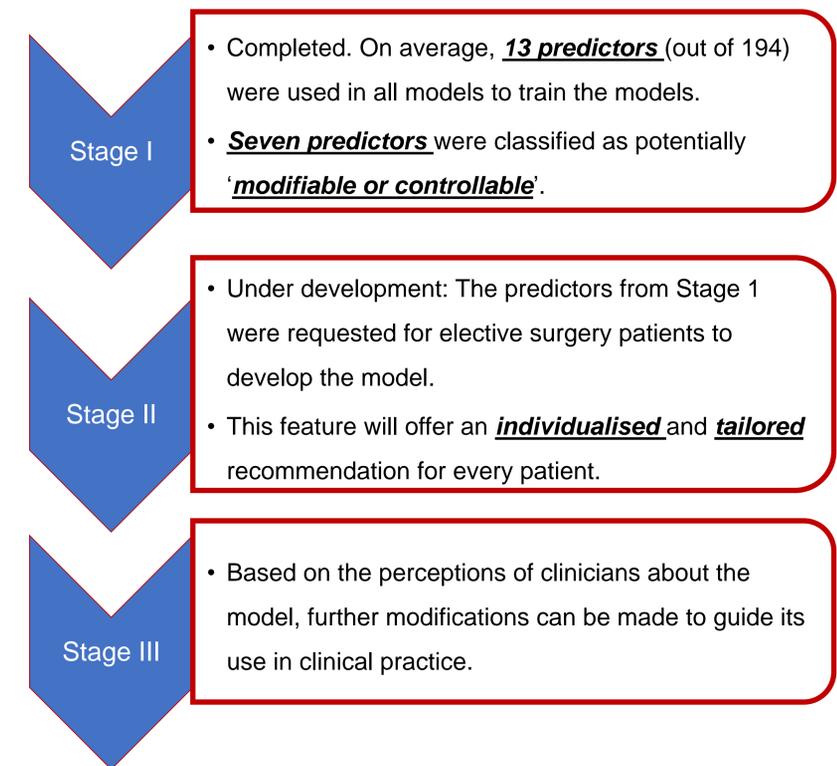
To predict the likelihood of infection and subsequent sepsis in elective surgery

To guide the clinical decision-making process

Plan:



Expected outcomes:



Conclusion:

- Sepsis prediction through machine learning can **save lives** and overcome antimicrobial resistance.
- Prediction models can help concentrate **finite resources** to patients at higher risk, offer clinicians **more time** to care for their patients, and guide the clinical decision-making process.
- This project will open the gates for developing similar models for other conditions.

References

- 1- York Health Economics Consortium (YHEC)-Feb 2017
- 2-Resource impact report: Sepsis: the recognition, diagnosis and early management (NG51)- NICE July 2016
- 3-Public health England and UK sepsis trust website