Category :**Sepsis: biomarkers**

A39 - ***Usefulness and cost-effectiveness of procalcitonin in critical care patients admitted to the east sussex healthcare nhs trust (esht)***

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Introduction:

This study evaluated the usefulness and cost-effectiveness of procalcitonin (PCT) following its introduction to aid antibiotics discontinuation in critical care patients admitted to ESHT during the Covid-19 pandemic.

Methods:

Non-surgical critical care patients with a diagnosis of sepsis or lower respiratory tract infection during their admission between 01st January and 30th June 2020.
Retrospective analysis of data using ICCA (IntelliSpace Critical Care and Anaesthesia) to compare the number of antibiotic doses administered per patient before and after introduction of PCT.
After PCT introduction, we recorded the number of PCT levels requested, their frequency as well as the level of PCT and when discontinuation occurred.

Results:

81 patients were included -13 admitted before PCT introduction and 68 after (this important increase in the number of patients is explained by the increased proportion of patients with Covid-19 pneumonitis).
The average dose of antibiotics administered per patient was reduced by 28.8% (70.24 vs 49.98) following introduction of PCT.
Despite an incurred cost of £12 per PCT assay, the overall average cost per patient was reduced by £59.60 (£257.94 vs £146.78).
A lack of consistency in the frequency of PCT level request was observed.

Conclusion:

Introduction of PCT to aid discontinuation of antibiotics resulted in a 28.8% reduction in average antibiotics prescription and an overall cost reduction of £59.60 per patient.
The reduction in antibacterial exposure also brings non-financial benefits such as increased patient safety through experience of less side-effects, reduction in antibiotics resistance among others.
The lack of consistency in the requests of PCT resulted in the design of a protocol for its use within ESHT.