

Chelwest NNU Thursday am Journal Club 24/03/22

1

Paper of the Week

Time to positivity of blood cultures in neonatal late-onset bacteraemia.

Mukhopadhyay et al, 2022

Archives of Disease in Childhood - Fetal & Neonatal Edition

Retrospective Cohort Study

Presented by Dr Kokal Sriskandarajah



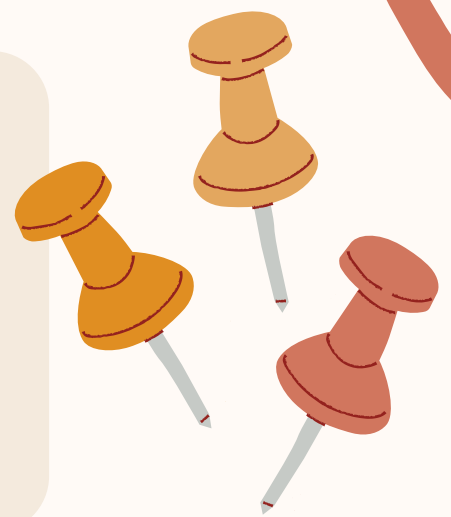
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Key Question

To determine the time to positivity (TTP) of blood cultures among neonates with late onset bacteraemia?

Inclusion Criteria = NICU admissions, > 72hrs of life, > 2 days since last antibiotics

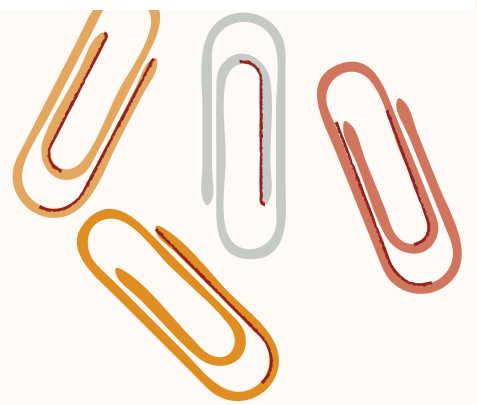
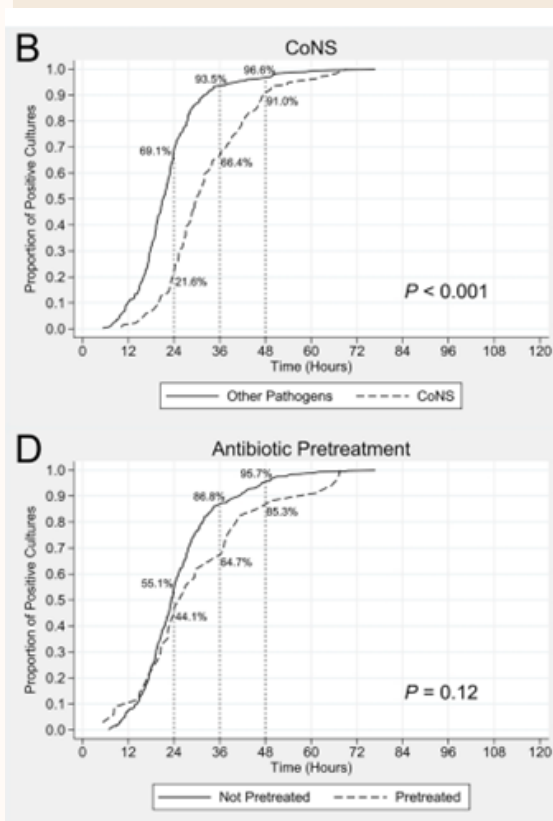
TTP = Duration in hours from when the culture was obtained to the time that lab staff reported growth to a neonatal provider



3

Results

10.6% of 10235 cultures were positive
Presence of central lines, pretreatment with antibiotics & presence of CoNS were associated with TTP > 36hrs



4

Strengths & Limitations

- Clear, focused PICO
- Large sample size
- Cohort from 2 regions
- Applicable to local populations
- No clinical information included which is an important confounding factor
- Varying incubation time methods introduce possible bias



Learning Points

Multivariable Analyses = observation and analysis of more than one outcome variable at a time

- **Finding a set of prognostic factors that could predict the risk of disease/ event**

For this paper it demonstrated that **only** CoNS and antibiotic pre-treatment could predict TTP > 36 hours

Coming up!

Gemma Ramsden presenting on 31/03/22

Any questions/ requests please contact your friendly research fellows at katie.evans7@nhs.net or dominic.carr@nhs.net