

UTILITY OF BLOOD CULTURE IN CHILDREN

ADMITTED TO HOSPITAL WITH COMMUNITY-ACQUIRED PNEUMONIA

AIMS

Several papers have challenged the utility of blood cultures in children presenting with community-acquired pneumonia.

We aimed to determine the point prevalence of bacteraemia in these patients and to infer the usefulness of blood culture in their management.

METHODOLOGY

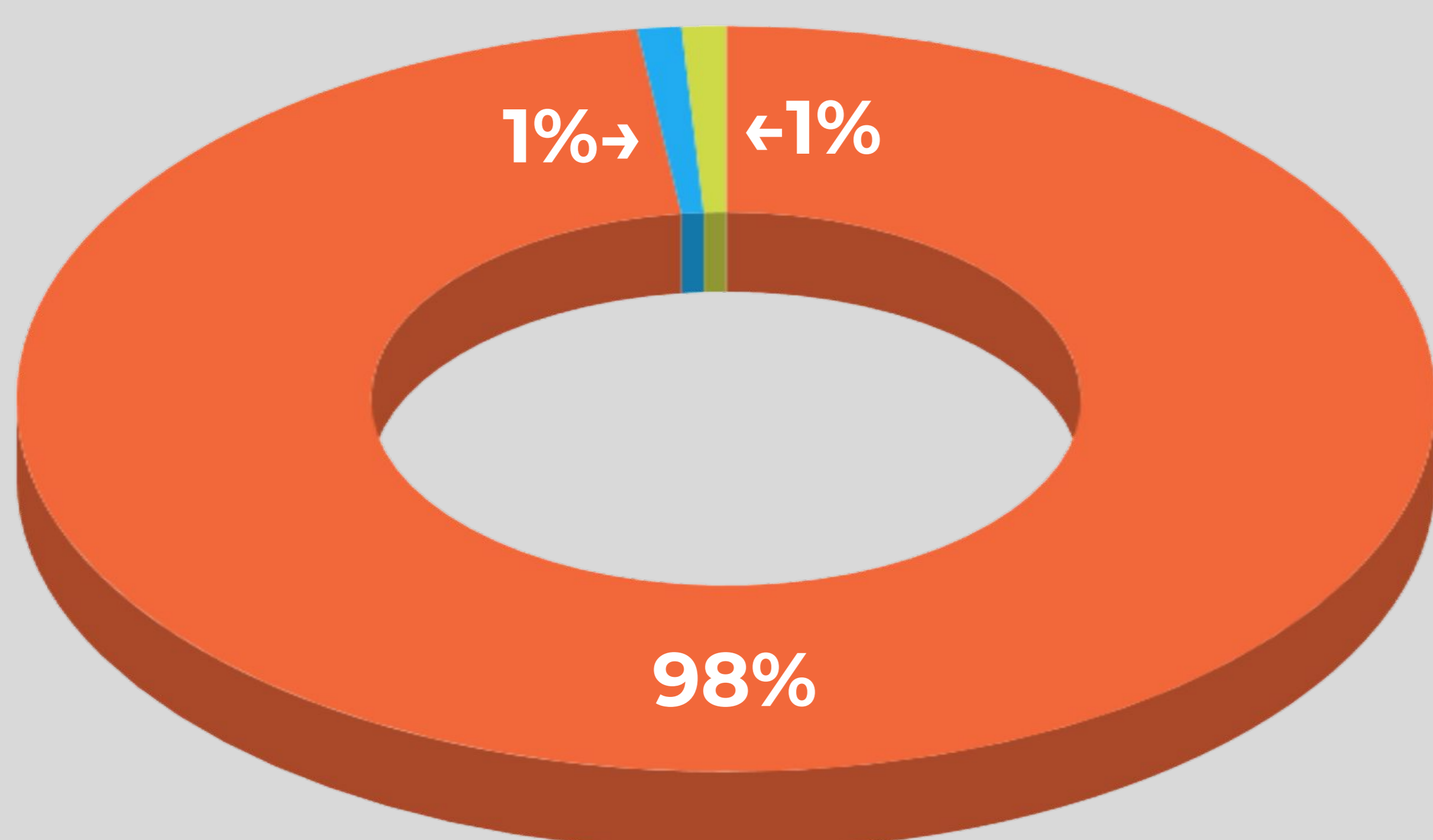
We identified all blood cultures taken in the Paediatric ED and Children's Assessment Unit (CAU) in 2016.

To manage the scope of enquiry and **allow for seasonal variability** those taken in January and May 2016 had in depth analysis.

Blood culture results and discharge summaries were reviewed using the hospital's internal systems.

Children with a diagnosis of 'lower respiratory tract infection' or 'pneumonia' were included in this analysis.

Blood culture results for children presenting with Pneumonia



● Negative ● True Positive ● Contaminant

RESULTS

TOTAL BLOOD CULTURES TAKEN	105
DISCHARGED BEFORE CULTURE RESULT	34
TRUE POSITIVES	1
PREVALENCE OF BACTERAEMIA	0.95%

105 patients were identified via the hospital ICE system. **Of 105 blood cultures, 2 were positive (1.9%).**

Only 1 (0.95%) was a true positive for Streptococcus pneumoniae, which was fully sensitive to empirical therapy per our hospital antibiotic policy. The other was for Coagulase Negative Staphylococcus (contaminant of no clinical significance).

34/105 (32.3%) had positive respiratory virology, predominantly from nasopharyngeal aspirate.

34/105 (32.3%) were discharged less than 48 hours from the time of the blood culture.

Only two discharge letters specifically made reference to 'sepsis' as part of the diagnosis.

CONCLUSIONS

Our data supports evidence of a very low yield from blood cultures in children presenting with lower respiratory infection.

It is increasingly evident that blood cultures add little to the clinical management of children with pneumonia.