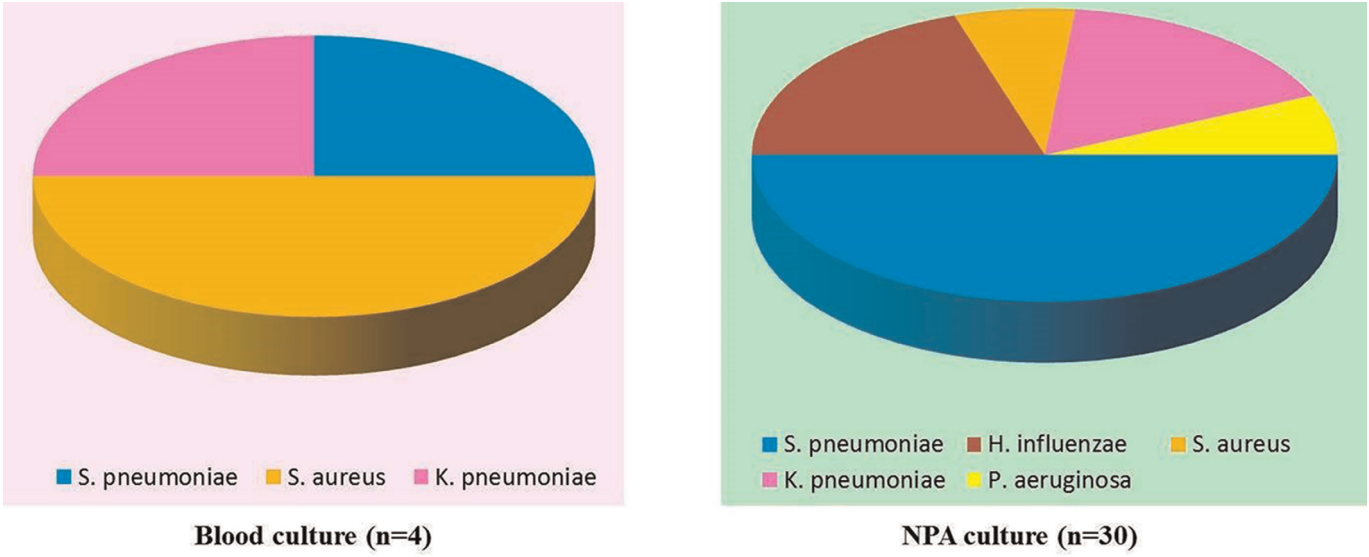

Abstract PO-0197 Figure 1 Bacteria detected by culture (Blood and NPA)

PO-0197 BACTERIAL CULTURE VERSUS PCR FOR ETIOLOGIC DIAGNOSIS OF COMMUNITY ACQUIRED PNEUMONIA-RESULTS FROM CAPES (COMMUNITY ACQUIRED PNEUMONIA ETIOLOGY STUDY)

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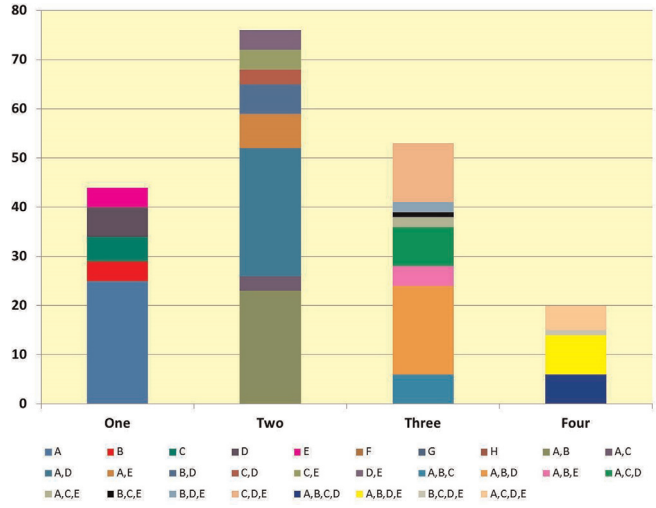
Background PCR technologyholds promise to overcome the limitations of bacterial culture for confirming bacterial aetiology in childhood pneumonia.
Aims To compare the diagnostic yield using bacterial culture versus PCR in a cohort of children with community acquired pneumonia (CAP).
Methods CAPES is single-centre cohort study of 2000 consecutively enrolled children (1 month-12 years) with CAP(World Health Organisation definition). All underwent blood and nasopharyngeal aspirate (NPA) culture for bacteria. In addition, a randomly selected sub-group (10%,n = 200) underwent multiplex PCR on NPA samples to identify eight pathogenic bacteria.
Results In the sub-cohort of 200 children, pathogenic organisms were isolated from blood and NPA in 4(2%) and 30(15%) respectively (Figure 1). The main cohort showed similar proportions (1.7% and 14.0%) and distribution of organisms, suggesting absence of selection bias. Multiplex PCR(Figure 2) yielded traces of bacteria in 193(96.5%),with one organism detected in 44(22%), two in 76(38%), three in 53(26.5%), and four in 20 (10%). Etiologic diagnosis could be confirmed by bacterial culture in4.5% cases, whereas PCR confirmed in 22%.
Conclusion Bacterial culture techniques appear to have limited sensitivity for etiologic diagnosis, whereas PCR has much higher sensitivity, although detection of multiple pathogenic bacteria precluded confirmation of aetiology in the majority.



Abstract PO-0197 Figure 2 Bacteria detected by multiplex PCR

PO-0198 FERRITIN AND SERUM IRON IN PAEDIATRIC FEBRILE ILLNESS

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Introduction Ferritin is the major intracellular iron binding protein in the body. Serum ferritin is an inflammatory marker. Iron sequestration is one of the innate immune responses to infection. The goal of this research was to investigate the role of serum ferritin and serum iron as clinically useful markers of infection in the paediatric emergency department.
Methods Multiple inflammatory markers, including C-reactive protein, procalcitonin, and serum ferritin, and other iron studies were measured in 37 children, from 3 months through 8 years of age, presenting to the emergency department with temperature of ≥39 degrees Celsius, and 38 patients in the same age group with non-febrile illness (controls). Patients with chronic inflammatory or rheumatologic conditions and those with renal or hepatic failure were excluded.