

00241 A Comparison of Tools in the Identification of Febrile Infants Younger Than 3 Months Old at Risk of Serious Infections

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Aims: Febrile infants ≤ 3 months old are a diagnostic dilemma in the paediatric emergency department (ED). We aimed to compare the diagnostic performance of triage tools like the National Institute for Health and Clinical Excellence (NICE) Traffic Light System and Severity Index Score (SIS) with the established Rochester Criteria (RC), Philadelphia Criteria (PC) and Boston Criteria (BC) in the prediction of serious infections (SI) among young febrile infants.

Methodology: A retrospective study of febrile infants ≤ 3 months old presenting to KKH ED between March 2015 and February 2016 was conducted. The clinical findings, laboratory parameters, outcome and management were documented. Infants were assigned to high - and low - risk groups for SI according to each tool. We compared the age - based performance of each tool using sensitivity, specificity, positive predictive value and negative predictive value.

Result: Of 1057 infants presenting with fever, 326 (30.6%) infants were diagnosed with SI. The RC performed with the highest sensitivity in infants aged 0 - 28 days and in infants aged 29 - 60 days (98.5%, 95% CI 90.6 - 100.0% and 93.6%, 95% CI 88.2 - 97.0% respectively), while the PC performed best in infants aged 61 - 90 days (97.9%, 95% CI 92.5 - 99.7%). The NICE Guideline performed comparably across all age groups, maintaining high sensitivities of 91.5% (95% CI 81.3 - 97.2%) in infants aged 0 - 28 days, 93.7% (95% CI 88.4 - 97.1%) in infants aged 29 - 60 days and 93.6% (95% CI 87.7 - 97.2%) in infants aged 61 - 90 days. Conversely, the SIS did not perform satisfactorily in this study population.

Conclusion: As a triage tool, the NICE Guideline achieved satisfactory sensitivity when compared with the RC in predicting for SI. This study has implications on the triage of febrile young infants in the ED.