

## **VALUE OF BLOOD BIOMARKERS TO IDENTIFY YOUNG FEBRILE INFANTS DIAGNOSED WITH UTI AT HIGHER RISK OF BACTEREMIA. INITIAL RESULTS.**

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### **Introduction**

Selected young febrile infants with urinary tract infection (UTI) and lower risk for associated bacteremia can be managed as outpatients. Different biomarkers are useful in the management of febrile young infants but their role in this specific population has not been clarified.

### **Objective**

To analyze the relationship between blood biomarkers (white blood cell count -WBC-, absolute neutrophil count -ANC-, procalcitonin -PCT- and C-reactive protein -CRP) and the risk of bacteremia in infants under three months with febrile UTI.

### **Patients and methods**

Prospective multicentric study developed in 29 Spanish Paediatric Emergency Departments members of the RISEUP-SPERG (Spanish Pediatric Emergency Research Group), including febrile infants less than three months old diagnosed with UTI between October-2011 and March-2012.

### **Results**

We included 715 infants, being 151 (21,1%) diagnosed with UTI. Forty-five (28,6%) were excluded because not having obtained CRP or PCT. Finally, 106 febrile infants under three months diagnosed with UTI were included (5 -4,7 %- with associated bacteremia). Values of WBC and ANC were similar in infants with and without bacteremia (14116 leucocytes/ mm<sup>3</sup>, CI 95% 11178-17053 vs 15630, CI 95% 14221-17039; and 8912 neutrophils/mm<sup>3</sup>, CI 95% 4865-12960 vs 8351, CI 95% 7327-9375; respectively). Values of CRP and PCT were significantly lower in patients without bacteremia when compared with those with bacteremia (107,7 mg/L, CI 95% 60,1-155,3; vs 48,8, CI95%

37,9-59,7; and 26.3, CI 95% 6.8-45.9 vs 2,6, CI 95% 1,2-4,0).

### **Conclusion**

Procalcitonin and C-reactive protein identify better than classical biomarkers young febrile infants with UTI at higher risk for bacteremia.