

MANAGEMENT OF FEBRILE YOUNG INFANTS WITH ALTERED URINE DIPSTICK. A SPANISH PEDIATRIC EMERGENCY RESEARCH NETWORK'S (RISeuP-SPERG) SUBSTUDY

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Background

Urinary tract infection (UTI) is the most common severe bacterial infection (SBI) in febrile infants. A primary diagnosis can be made in the emergency department if an altered urine dipstick test is obtained. Spanish guidelines recommend inpatient treatment in patients less than 90 days old with UTI suspected.

Objective

To describe variation in management of febrile young infants with altered urine dipstick and analyze factors associated with out-of-hospital management.

Patients and methods

Subanalysis of a prospective multicentric study developed in 19 Spanish Pediatric Emergency Departments (PED) included in the Spanish Pediatric Emergency Research Network (RISeuP-SPERG), including febrile infants less than three months old with fever without source (FWS) attended at the PED between October-2011 and September-2013.

Results

A total of 3401 infants were included. Of them 765 (22.5%) had an altered urine dipstick, being 72 (9.4%) discharged, 30 (41.7%) after a observation period. Discharged patients were significantly older (71.9 vs 46.5 days old; $p < 0.001$) Antibiotic treatment was given in 51 (70.8%) discharged patients, 27 (52.9%) orally, and parenteral in the other 24. Urine culture growth $> 50,000$ cfu/ml in 36 (50%) discharged patients. None of them was admitted after receiving the results of the urine culture. Two patients had bacteremia, both of them were received antibiotics in the emergency department.

After multivariate analysis, variables that remained as independent factors for being discharged were being well appearance, being older than 60 days old and to have blood levels of C-reactive protein and procalcitonin less than 20 mg/L and 0.5 ng/ml, respectively.

Conclusions

A significative proportion of febrile young infants with suspected UTI are managed as outpatients. Physicians are predispose to discharge well appearing patients, older than 60 days old with normal levels of blood biomarkers.