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CONTROL ID: 3163470**TITLE:** Nitrituria is a risk factor for invasive bacterial infection in febrile infants under 90 days old. A RISEUP-SPERG Study.**ROLE TYPE:** Abstract**CURRENT CATEGORY:** Emergency Medicine**CURRENT SUBCATEGORY:** None**KEYWORDS:** Febrile infant, Urinary Tract Infection.**AUTHORS (LAST NAME, FIRST NAME):** Velasco, Roberto¹; Benito, Javier³; Mintegi, Santiago²**INSTITUTIONS (ALL):** 1. Pediatric Emergency Department, Rio Hortega University Hospital, Laguna de Duero, Valladolid, Spain.

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TITLE: Nitrituria is a risk factor for invasive bacterial infection in febrile infants under 90 days old. A RISEUP-SPERG Study.**Background:** Combination of leukocyturia and/or nitrituria has been proven to be an independent risk factor for bacteremia in febrile infants under 90 days old. Nevertheless, to our knowledge, no study has analyzed specifically the value of nitrituria to identify young febrile infants at risk for invasive bacterial infections (IBI) when evaluated in the emergency department (ED).**Objective:** To analyze the association between a positive nitrite test in the urine dipstick and a positive bacterial blood or cerebrospinal fluid (CSF) culture in febrile infants under 90 days old.**Design/Methods:** Secondary analysis of a prospective multicenter sample of febrile infants less than 90 days old attended in 19 Spanish paediatric ED included in RISEUP-SPERG (Spanish Pediatric Emergency Research Group), between October-2011 and September-2013. IBI was defined as a positive bacterial blood or CSF culture.**Results:** A total of 3401 infants were included. Of these, urine dipstick was altered (leukocyturia and/or nitrituria) in 766 (22.5%) and 107 were diagnosed with an IBI (3.1%) In table 1, prevalence of bacteremia and a positive bacterial CSF culture according to urine dipstick result is shown.

After adjusting by the presence of leukocyturia and other potential confounders, as age, sex, previous genitourinary malformations, maximum temperature and appearance, a positive nitrite test in the urine dipstick resulted as a risk factor for developing an IBI (OR 2.6, CI 95% 1.47 – 4.61).

Conclusion(s): In febrile infants under 90 days old, a positive nitrite test in the urine dipstick is an independent risk factor for IBI.**Sabbath conflict:** No conflict**APA SIG Comm Region:** APA Special Interest Group (SIG)**First author trainee?:** No, Not a Trainee**AWARDS:****TABLE TITLE:**

Table 1

TABLE:

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Urine dipstick	Bacteremia (%; CI95%)	Positive CSF culture (%; CI95%)
Negative (n=2635)	53 (2.0%; 1.5%-2.6%)	15 (0.6%; 0.3%-0.9%)
LE + (n=496)	21 (4.2%; 2.8%-6.4%)	1 (0.2%; 0%-1.1%)
NT + (n=24)	2 (8.3%; 2.3%-25.8%)	0 (0%; 0%-13.8%)
LE+ and NT + (n=246)	24 (9.8%; 6.6%-14.1%)	2 (0.8%; 0.2%-2.9%)

Prevalence of bacteremia and a positive bacterial CSF culture according to urine dipstick result.

(No Image Selected)

Presenting Author Confirmation: I Confirm**PRESENTER:** Roberto Velasco**Agreement to Participate in a CME Activity:** Roberto Velasco: Agreement to Participate in a CME Activity |

Javier Benito: Agreement to Participate in a CME Activity | Santiago Mintegi: Agreement to Participate in a

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Disclosure of Financial Relationship: Roberto Velasco: No - Financial Interest | Javier Benito: No - Financial Interest | Santiago Mintegi: No - Financial Interest

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