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4. Lavelle JM, Blackstone MM, Funari MK, Roper C, Lopez P, Schast A, et al. Two-step process for ED UTI screening in febrile young children: reducing catheterization rates. *Pediatrics* 2016;138:e20153023.

Editors' Response



We take this opportunity to comment on the letter to the editor from Drs Roberts and Wald, questioning the validity of the analysis and conclusion of the manuscript by Shaikh et al, and the authors' response. We believe that the analysis performed by Shaikh et al is sound and stand by the decision of *The Journal* to publish their study. We also choose to publish the letter and response to further enrich the deliberations of our readers.

The crux of the writers' argument about the meaning of bacteriuria in the absence of pyuria is an example of the utility of Bayes' Theorem in clinical decision making. The positive (or negative) predictive value of any test for a condition

depends on the pretest probability of that condition in the patient being tested. The pretest probability of urinary tract infection in a febrile infant with no apparent clinical focus of infection is considerably higher than the probability in an asymptomatic child undergoing a "screening" test. The interpretation of finding bacteriuria in the absence of pyuria in the 2 situations also would be expected to be different. Although pyuria is a typical finding in urinary tract infections, we agree with Shaikh et al that the absence of pyuria does not necessarily exclude that diagnosis or the need for timely antibiotic therapy.

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