

Searching for an Emergency Department Method for Detecting Serious Bacterial Infection in Children

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There is not a pediatrician who has not pondered why we do not have a method for detecting serious bacterial infection (SBI) that is 100% sensitive and specific for predicting who is at high risk and low risk for such infection.

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There is not a pediatrician who has not pondered why we do not have a method for detecting serious bacterial infection (SBI) that is 100% sensitive and specific for predicting who is at high risk and low risk for such infection. While numerous studies have tried to tackle this question and have moved us closer to “diagnostic nirvana,” we are not there yet; although, new diagnostic tools continue to be proposed to get closer to the diagnostic accuracy we all strive for. For example, new

biomarkers are an example of potential diagnostic predictive tools that may, in combination with the usual predictors (clinical exam, white blood count, urinalysis, spinal fluid) make predicting risk for SBI even more accurate.

To understand the role of new biomarkers in predicting SBI, Irwin et al. ([10.1542/peds.2016-2853](#)) share with us their work using clinical biomarkers (procalcitonin and resistin) in a prospective study of 1101 children who were febrile and under 16 years of age. The results are impressive using the diagnostic model that is designed and then validated by the authors in this population. While more testing is needed, this study moves us closer to being able to determine just who needs antibiotics and better yet, who needs admission for an SBI. These new biomarkers might not be available in many settings, this study is one that will heat up the field of identifying who has an SBI more accurately in the febrile infant and child. [Link to this article](#) and see what we mean.

- [Probiotics and Child Care Absence Due to Infections: A Randomized Controlled Trial](#)
- [Probiotics in the Child Care Center: Context Matters](#)
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