



# A Commentary on “Diagnostic Utility of the Sysmex UF-5000 Flow Cytometer in Acute Bacterial Prostatitis: A Retrospective Pilot Study”

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I read with great interest the article by Han et al. [1] evaluating the diagnostic performance of the Sysmex UF-5000 for acute bacterial prostatitis (ABP). Prompt and accurate diagnostic support is essential for this condition, and the authors have contributed valuable data demonstrating the potential usefulness of rapid urine flow cytometry in clinical decision-making. Their findings regarding the bacterial count and Gram classification functions are particularly noteworthy and add meaningful context to the expanding role of automated urinalysis in urological infections.

I would like to respectfully offer 2 suggestions that may help strengthen future research in this area.

First, the cutoff values employed for UF-5000 parameters were determined retrospectively using receiver operating characteristic curve analysis. While this is an appropriate exploratory approach, there remains the possibility of overfitting, especially given the relatively small cohort analyzed [2]. A prospective validation study in an independent population would help confirm the robustness of these proposed thresholds and support broader adoption in routine clinical practice.

Second, although the study demonstrated an encouraging Gram classification concordance rate of 85.7%, further characterization of discordant results may provide useful clinical insights. Differences in bacterial morphology, mixed infections, or low bacterial counts could influence misclassification. A deeper understanding of such scenarios would help clinicians better interpret flagged results and recognize potential limitations when distinguishing between Gram-positive and Gram-negative pathogens.

Overall, the authors should be congratulated for conducting a clinically relevant and methodologically sound pilot investigation. Their balanced discussion and recognition of remaining questions provide a strong basis for future multicenter studies aimed at refining and validating the role of automated flow cytometry in ABP diagnosis.

• **Conflict of Interest:** The author has nothing to disclose.

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## REFERENCES

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