

# Techcyte Announces Successful Completion of Clinical Validation Study for AI-Assisted Diagnosis of Bacterial Vaginosis

OREM, UT, USA, June 9, 2023

[/EINPresswire.com/](https://www.einpresswire.com/) -- Techcyte, the Clinical Pathology AI Platform, is pleased to announce the successful completion of a [clinical validation study](#) for its AI-assisted digital review of Gram stained vaginal smear slides for the diagnosis of bacterial vaginosis. The study validated the efficacy of Techcyte's Machine Learning Algorithm in comparison to conventional microscopy using the Hay-Ison scoring method.



Technologist using Techcyte's Bacteriology BV Gram Analysis software

Assessment of Gram stained vaginal smear samples has long been plagued by variability and subjectivity. To address this issue, Techcyte developed an AI-powered algorithm and workflow that accurately identifies bacteria, cells, and yeasts in vaginal samples.

In the study, 240 vaginal smear slides were analyzed using the ML Algorithm, which classified and counted bacteria and cells and calculated a Hay-Ison score for each slide. Four examiners then reviewed 100x equivalent field of view crops within the software interface and validated the scoring. Simultaneously, the slides were also examined manually using conventional light microscopy, and a Hay-Ison score was calculated for each slide. Discordant results were adjudicated by a committee of experts, which served as the ground truth.

The results of the study were promising. Of the 240 slides reviewed with AI-assistance, 166 slides had concordant scores with the manual review, and 214 slides had concordant scores after adjudication. Discordant results were more prevalent between Grade II and either Grade I or Grade III. However, for cases with Grade II ignored, there was 100% agreement. In Grade II negative and Grade II positive cases, the study concluded that the AI-assisted method was equivalent to the manual review.

Based on these findings, the study's conclusions support the efficacy of the Techcyte Bacterial

Vaginosis ML Algorithm. The observed sensitivity and specificity of the Algorithm were equivalent or better compared to the manual review with adjudicated results. Techcyte's ML algorithm provides a standardized approach to Gram stain analysis, mitigating the variability commonly observed when performing manual microscopy.

"The successful completion of this clinical validation study is a significant milestone for Techcyte," said Michael Dowdle, Product Manager at Techcyte. "Our AI-assisted approach offers a more standardized and objective method for diagnosing bacterial vaginosis, reducing subjectivity and improving accuracy. We are proud to offer this innovative solution to healthcare professionals, enabling them to make more informed and efficient clinical decisions."

Techcyte is committed to advancing AI technology in healthcare and will continue to develop groundbreaking solutions to address diagnostic challenges in the clinical pathology space. The Techcyte clinical pathology platform and the AI assisted digital review are for research use only in the US as the company pursues further research to support an eventual FDA submission.

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