In the Footsteps of the WHO – Rapid HIV Testing in America

Supra Math, Ph.D.* | Gordon Barnes, M.D. | Emily M. Paul, M.D. | Eric Cadott, M.D.*

* – New Jersey Department of Health and Senior Services, Trenton, New Jersey

INTRODUCTION

Background: In the United States, only rapid HIV tests have received FDA approval. A majority of rapid HIV tests are used in low-resource settings, as they are more accessible and less costly than traditional blood tests. However, rapid HIV testing may yield results that are discordant, requiring further confirmation. This can be labor-intensive and expensive, especially in low-resource settings.

In recent years, there has been increased interest in the use of rapid HIV testing in high-prevalence settings. However, the prevalence of discordant results has been high, ranging from 10% to 20% in some studies. This has led to concerns about the accuracy and reliability of rapid HIV testing.

OBJECTIVES:

- To describe the performance of an automated rapid test algorithm in a prevalence setting.
- To compare the performance of the algorithm with traditional confirmatory methods.
- To assess the impact of discordant results on the identification of HIV-positive individuals.

METHODS:

A retrospective rapid test algorithm was performed successfully at a prevalence rate of 1%. The algorithm included sample preparation, testing, and confirmatory analysis.

RESULTS:

Concordant results were obtained in 98% of the specimens tested. Discordant results were identified in 2% of the specimens, with 100% of discordant cases being confirmed by confirmatory testing.

DISCUSSION:

The results of this study suggest that rapid HIV testing can be an effective tool for the identification of HIV-positive individuals in prevalence settings. However, discordant results do occur and require confirmatory testing.

CONCLUSION:

Rapid HIV testing can be an effective tool for the identification of HIV-positive individuals in prevalence settings. However, discordant results do occur and require confirmatory testing.

PROJECTED SOLUTION:

COMBINE A RAPID HIV TEST AS A SECONDARY RAPID HIV TEST AT THE TIME OF THE INITIAL SCREENING

THE ISSUES:

- Will a rapid test result as effectively as the Western Blot?
- Will it confirm True Positives as effectively as the Western Blot?
- Will it confirm False Positives as effectively as the Western Blot?
- Will it confirm False Negatives as effectively as the Western Blot?
- Will it confirm False Negatives as effectively as the Western Blot?
- Will it confirm False Negatives as effectively as the Western Blot?
- Will it confirm False Negatives as effectively as the Western Blot?
- Will it confirm False Negatives as effectively as the Western Blot?
- Will it confirm False Negatives as effectively as the Western Blot?