



Comparison of OSOM Trichomonas Rapid Test to InPouch™ TV Trichomonas vaginalis Test

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The protozoan *Trichomonas vaginalis* annually infects 5 million people in North America and 180 million worldwide. Many cases are asymptomatic and lead to: preterm delivery, low birth weight and is predisposing to HIV infection, AIDS and cervical cancer.

Culturing for *Trichomonas* has been considered the “gold” standard. Problems with culture include the need for special culture media, proper inoculation of specimen by the clinician, maintaining the correct temperature during transport and (because the culture is held up to 6 days) there is a delay in results.

Use of a rapid EIA system can decrease the number of problems and be useful in the outpatient venues for real-time results. Swabs used are standard Amies transport, at room temperature or refrigerated, and results are available within 30 minutes.

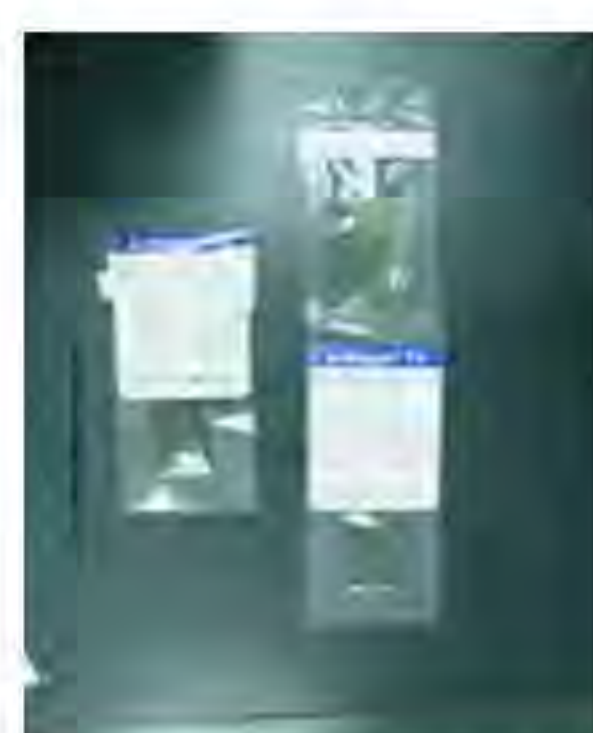
Materials

OSOM *Trichomonas* Rapid Test (OSOM TV)
GenzymeDiagnostics
(www.genzymediagnosics.com)

InPouch™ TV *Trichomonas vaginalis* Test (IPTV)
Biomed Diagnostics
(www.biomeddiagnostics.com)

Methods

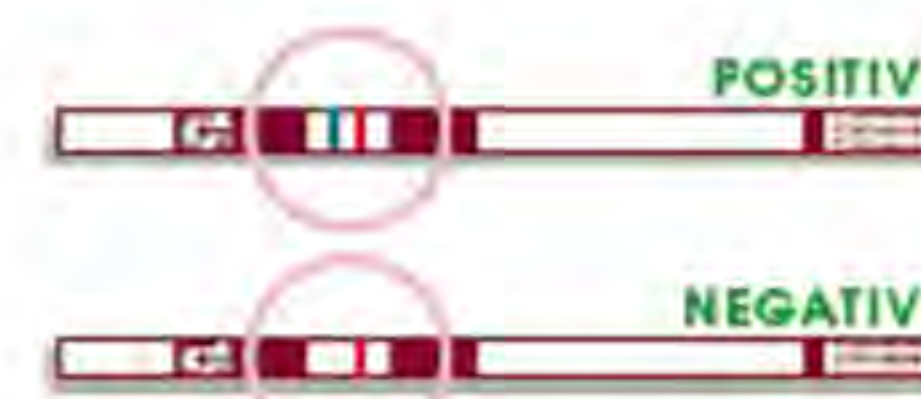
IPTV consists of a plastic pouch that is stored at room temperature in the dark. The specimen is inoculated into the top portion and is viewed microscopically through the plastic pouch. If positive (motile trichomonads), the results are reported to the doctor and treatment can begin. If negative, the media is rolled into the bottom half of the pouch and incubated at 37C°. The pouch is examined for 4-6 days for live, motile organisms.



OSOM TV is an EIA system for testing of vaginal swabs.

The specimen swab is placed in a tube with sample buffer for 1 minute, the swab is removed and a test strip is placed in the same tube for 10 minutes.

Properly performed tests show a red line across the strip with positive specimens having an additional blue line.



Methods

We compared the performance of the OSOM TV to IPTV for the detection of *T. vaginalis* in urogenital specimens submitted in Amies transport to our laboratory for culture.

Results

To date, there have been 102 samples analyzed by both OSOM TV and IPTV. The performance characteristics of OSOM TV as compared to IPTV are as follows:

IPTV - OSOM - N=73
IPTV - OSOM + N=0
IPTV + OSOM + N=27
IPTV + OSOM - N= 2
Sensitivity 93% (27/29)
Specificity 100% (73/73)
PVN 97% (73/75)
PVP 100%

Comparison

Turn Around Time: IPTV: 4-6 days
OSOM: 30 minutes
Ease: Both stored at RT.
OSOM: No incubator needed
Reagent Cost: OSOM TV is more expensive.

Conclusions

OSOM EIA is a rapid test with excellent sensitivity and specificity to use to diagnose infection with *Trichomonas vaginalis* from vaginal swabs collected in Amies transport.

Acknowledgments

Thanks to all of the SPA technologists for their assistance. OSOM TV reagents were donated by Genzyme and Starplex.