

# Syphilis



**12 million** cases yearly,  
**90%** in developing nations\*



## The Recommendation

Syphilis screening in blood donors  
by *treponemal test*, e.g. ELISA.



## The Problem

- **India:** Screening done by non-treponemal test, e.g. RPR.
- Less specific test, may give false-negative results.

# Comparative evaluation of enzyme-linked immunosorbent assay with rapid plasma reagin for screening of syphilis in blood donors

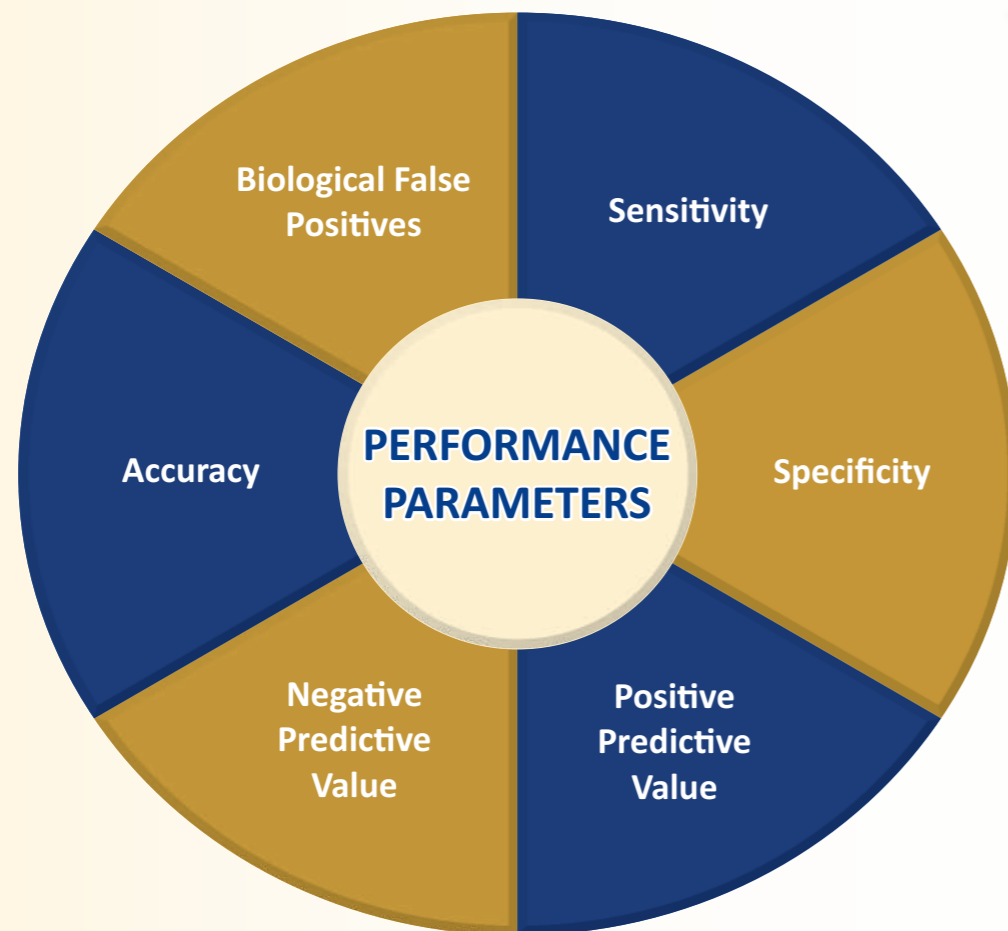
## OBJECTIVE

Study performance of ELISA as a tool for Syphilis screening in comparison to RPR

## PROTOCOL

**Phase 1:**  
600 consecutive donor samples simultaneously screened by ELISA & RPR

**Phase 2:**  
43 repeat reactive samples (reactive on 2 RPR kits) screened by ELISA and TPHA



This study was done using  
**Erba Lisa<sup>®</sup> Syphilis**

Asian Journal of  
Transfusion Science  
2018

## Results of the study at PGIMER, Chandigarh

### Specificity

57%



0%

RPR : 0% specificity

### Accuracy

84%



63%

ELISA: Better accuracy

### Biological False Positivity (BFP)

21%



37%

RPR: Higher BFP

### Sensitivity

100%



100%



ELISA: 100% sensitivity

### Negative Predictive Value (NPV)

100%



0%

ELISA: 100% NPV

### Positive Predictive Value (PPV)

79%



63%

ELISA: Better PPV

## Conclusion:

“WHO recommendations of screening for syphilis using **ELISA**, in low prevalence population of blood donors, is more suitable for usage in transfusion services.”

# Erba Lisa<sup>®</sup> Syphilis

## Performance

- Excellent sensitivity and specificity
- Detection of Syphilis at any stage of infection

## Reliability

- Total antibodies(IgM, IgG & IgA) detected against Treponema pallidum in human serum/plasma
- 1<sup>st</sup> Syphilis ELISA in India to be approved by NIB

## Convenience

- Ready to use reagents
- Short TAT: 105 minutes
- Pack Size: 96T/192T




  
Automation  
compatible

\* TDR for research on diseases on poverty. Disease Watch Focus: Syphilis;  
[https://www.who.int/tdr/publications/disease\\_watch/syphilis/en](https://www.who.int/tdr/publications/disease_watch/syphilis/en)

**ERBA Diagnostics Mannheim GmbH**  
Mallaustrasse 69-73 68219 Mannheim, Germany  
Tel.: (+49) 621 8799770 Fax: (+49) 621 8799688  
Email: [sales@erbamannheim.com](mailto:sales@erbamannheim.com)

Toll Free Number  
**1800 130 8226**

W: [www.erbamannheim.com](http://www.erbamannheim.com)  
Stay connected: 

**TRANSASIA BIO-MEDICALS LTD.**

Transasia House, 8 Chandivali Studio Road,  
Andheri (E), Mumbai - 400 072. T: (022) 4030 9000,  
F: (022) 2857 3030 E: [responses@transasia.co.in](mailto:responses@transasia.co.in)