



# PRESS STATEMENT

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## TYPHOID FEVER: WHICH TEST IS BEST?

Typhoid fever is common in PNG, with the Widal blood test used for diagnosis despite various shortcomings regarding accuracy.

Now a range of commercially available diagnostic tests have become available, which could have advantages over the Widal test,” said Valentine Siba, a researcher at IMR in Goroka.

“However these tests are rarely used on a large scale in areas where typhoid is always present, leading to caution about their suitability,” Mr Siba said.

“This evaluated two commercially available rapid diagnostic test kits (TUBEX<sup>®</sup>TF and TYPHIDOT<sup>®</sup>), a prototype test kit (TR-02) and the Widal test,” he said.

“We collected 530 blood samples and used the four different tests to check serum separated from whole blood. DNA was extracted from whole blood and used for molecular detection of typhoid.

“Only one test, TR-02, was highly sensitive (89%) and specific (85%) for the diagnosis of typhoid fever relative to the gold standards of blood culture and polymerase chain reaction (PCR).

“We found TR-02 to perform better than the Widal test, TUBEX<sup>®</sup>TF and TYPHIDOT<sup>®</sup> and believe it may be a suitable replacement for the Widal test.

“TR-02 is user-friendly and does not require specialised equipment, thus with adequate training, it could be used in both rural and urban health facilities.

“Factors such as cost and availability must be considered before its evaluation on a larger scale,” Mr Siba said.

**Symposium Paper:** Evaluation of serological diagnostic tests for typhoid fever in Papua New Guinea.

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