

SEROLOGY TEST in DIAGNOSTIC OF TYPHOID FEVER at CHILD HEALTH  
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**Background.** Diagnostic of typhoid fever is still a problem, due to non-specific markers and clinical findings. The definitive diagnosis requires isolation of *S.typhi* which only positive in 40% to 60% cases. PCR have been developed, but are not yet widely used. Widal test has been widely used, even though the Widal test is controversial because varied cut-off points and cross-reaction with other organism. American Academy of Paediatrics suggested the Widal test is not recommended. Newer serologic tests (TUBEX<sup>®</sup>TF) that had high sensitivity and specificity has been developed and used widely but have never been studied in Indonesian children.

**Objective.** To study the sensitivity and specificity of RDT in diagnosing typhoid fever.

**Methods.** Prospective study of TUBEX<sup>®</sup>TF which is confirmed by blood culture to diagnose typhoid fever of pediatric patients in Cipto Mangunkusumo, Tangerang, Budi Asih, Pasar Rebo, Carolus, Pondok Indah and Siloam Hospital between June-October 2007.

**Result.** Out of 169 samples, consisted of 49.7% males, 50.3% a female with the highest frequency of age is more than 5 years and 123 (72.8%) cases were given antibiotics. We studied the value of TUBEX<sup>®</sup>TF in 46 (27.2%) cases that never receive antibiotics. TUBEX<sup>®</sup>TF test had 100% sensitivity, 96% specificity with 95.5% PPV, 100% NPV, LR positive 25 and RL negative 0. We also found a cross reaction of TUBEX<sup>®</sup>TF with others non-*S.typhi* (2 *Klepsiella Pneumonia*, 9 *Gram-negative Coccus*, 2 *Pontaea*).

**Conclusions.** TUBEX<sup>®</sup>TF is a rapid, easy, reliable, sensitive and specific to diagnose typhoid fever in children especially for patients never receive antibiotics.

Key word. Typhoid fever, *Salmonella typhi*, TUBEX<sup>®</sup>TF.