LETTER TO THE EDITOR

Dear Sir,

Standardisation of the widal test

In the past, a number of studies had been carried out to evaluate the significance and interpretation of a single Widal result in the diagnosis of typhoid fever in this country. H and/or O agglutinin titres of $\ge 1:40$ to $\ge 1:500$ had been recommended as significant levels in the absence of paired sera results. Though at least two of the authors had acknowledged that these criteria were only applicable to their laboratories, many clinicians and epidemiologists were not aware of it and may have considered it as applicable universally. In this communication, I would like to reemphasize that there is a lot of interlaboratory variation in the performance of the Widal test. Therefore it is inappropriate to use any of the criteria in another laboratory which may be using a different technique.

Recently, we conducted a survey to find out the different techniques or variations used in the Widal test at the government laboratories with the aim of standardising it. Two lots of pooled sera, specimen A and B were aliquoted out and sent to 14 state laboratories for the Widal test with a questionnaire to determine the actual techniques used. At least three different variations of the test were employed. The range of values obtained was:

Specimen B

To agglutinin titres	<1:50 to 1:200	To agglutinin titres	1:160 to 1:3,200
Th agglutinin titres	<1:50 to 1:200	Th agglutinin titres	1:200 to 1:3,200
Ah agglutinin titres	<1:50 to 1:100	Ah agglutinin titres	<1:50 to 1:200
Bh agglutinin titres	<1:50 to 1:100	Bh agglutinin titres	<1:50 to 1:200

Therefore in view of the varied results obtained, it would be very misleading to use a standard significant titre level throughout the country for the diagnosis of typhoid fever based on a single Widal result, unless there is assurance that the results from all the areas are comparable.

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References

- Lim T W. Agglutinins in normal sera for the typhoid – paratyphoid group of organisms. The Medical Journal of Malaya 1965; 19(3): 188-190.
- Pang T and Puthucheary S D. Significance and value of the Widal test in the diagnosis of typhoid fever in an endemic area. *Journal of Clinical Pathology* 1983; 36: 471-475.
- Ross I and Abraham T. Criteria for confirming typhoid fever. The Medical Journal of Malaysia 1986; 41(1): 51-52.
- Gardner A D. An international experimen on the Widal reaction. *Journal of Hygiene* 1937; 37: 124-42.