

Cost Effectiveness/Yield/Medical Economics **Manual Against Automated Tests**

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When automation came in pathology laboratories all of us thought that the machine output results would be much more accurate than manual. Over the years we have realized that there are conditions, where manual results are more reliable.

In the pasts, I have written down my experience of detecting acute leukaemia by manual method, while a report of the same patient by automated machine had missed the leukaemia cells.

I am giving below some more examples.

1. *Platelet Count* : Very often we find that platelet count done manually is more accurate than the one done on automated machine. Therefore, do not hesitate to ask for the CBC (which includes platelet count) and manual platelet count.

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2. Though *malarial antigen* test which came in the market few months back is very accurate for diagnosis of malaria, the cost of the test is more than Rupees 600/-. Many labs have now started giving the report of thin and thick smears for detection of malarial parasites. Not only is the accuracy of this test very high, but in addition, to differentiate the type of malarial parasite, the laboratory can also give the level of parasitaemia. Both these reports will help you to treat your malarial patient more effectively.

3. Finally, *any culture (specially for A.F.B.)* which is done in any automated machine should also be done by manual method. On more than half a dozen occasions, I have seen that the manual method has picked positive culture, which was missed by an automated machine.

1. Kapoor OP. Fallacies of routine blood count: Automatal cell analyser versus manual method. 2001; 43 (4) : 563.

CAROTID BRUIT : GOOD FOR SILENT CARDIOVASCULAR DISEASE?

The researchers estimated that people with carotid bruits have twice the risk of myocardial infarction and cardiovascular death compared with people who do not.

The case of carotid bruits is exemplary: its poor sensitivity (< 20%) for severe carotid stenosis and the complex management of asymptomatic stenosis led the United Preventive Services Task Force to recommend against routine neck auscultation for carotid bruits.

Finally, in the general population aged more than 45 years, the prevalence of carotid bruit is about 4%.

The Lancet, 2008; 371 : 1554-55.