Monitoring AIDS treatment by regular physical examination is nearly as effective as advanced

Medicine

Posted by: niccosan

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laboratory tests

25 April: GENEVA -- When millions of HIV-infected people in poor countries began receiving advanced drug therapies, critics worried that patient care would suffer because few high tech laboratories were available to guide treatments. But according to a study being published in Lancet Friday, 25 April, these concerns are as yet unfounded. In fact, the study indicates that when clinicians use simple physical signs of deteriorating health -- such as weight loss or fever -- these doctors can provide therapies almost as effective those relying on the most advanced laboratory analysis.

"The results of this study should reassure clinicians in Africa and Asia, who are treating literally millions of people without these laboratory tests, that they are not compromising patient safety," said a coauthor of the paper, Dr Charles Gilks, the Coordinator of Antiretroviral Treatment (ART) and HIV Care at the World Health Organization in Geneva. "In fact, the outcome of their treatment is almost as good as those patients in the USA and Europe where laboratory-guided treatment is the norm."

The aim of the study was to look at the medium and long-term consequences of different approaches to monitoring antiretroviral therapy in a resource limited setting: using clinical signs and symptoms alone as recommended in WHO guidelines; or more sophisticated and costly but far less accessible immunological and virological load tests. The scientists used a model that had been tried and tested in London, and shown accurately to predict the course of the epidemic in the UK over twenty years, but with various changes to reflect realities on the ground.

According to the study authors, survival rates for individuals assessed for clinical symptoms alone were almost identical to those who underwent laboratory monitoring. The 5-year survival rate was 83% for individuals monitored for viral load, 82% for CD4 (a critical immune component) monitoring, and 82% for clinical monitoring alone. Corresponding values over a 24-year period were 67%, 64% and 64% respectively.

Although the survival rate was slightly higher with viral load monitoring, study authors pointed out it was not the most cost-effective strategy in the poorest countries. The study also examined whether clinical observation alone was effective in determining when to switch patients from WHO-recommended first-line treatments to more costly second-line medicines. Again, diagnosis based on an assessment of clinical symptoms was almost as effective as those relying on expensive laboratory tests.

Study authors concluded that, for patients on the WHO first-line regimen of stavudine, lamivudine

and nevirapine, the benefits of CD4 count or viral load monitoring were only modest at best.

The study, by a prominent group in the United Kingdom working with WHO scientists, employs mathematical models which were designed to identify emerging problems and problems that might appear after long term use of ART. But more work must be done. The study is based on mathematical projections and not on real world patients. While there is little real world data yet available, because these drugs have been used for such a short time in these countries, the little existing information does support the findings. Other studies are ongoing and more results should be available soon.

LINKS: http://www.thelancet.com/ and http://www.who.int/hiv/drugresistance/