Resistance Gets a Wellcome

New test may revolutionize drug decisions

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The protease revolution has dealt some dizzying treatment decisions. In this gambler's paradise, resistance is the wild card: Sooner or later, the virus shuffles its genes and trumps each drug. Viral load and CD4 counts can give a guesstimate about when a treatment starts and stops working, but measuring the specific mutations may better your odds by alerting you to which drugs your virus can resist-each of the 12 available anti-HIV drugs has its own mutation pattern, but unfortunately, cross-resistance is increasingly common. Now researchers at Wellcome Diagnostic have devised a test that does exactly that for the reverse-transcriptase gene. Called the LIPA HIV-RT, the gadget is said to be 99 percent accurate in detecting changes in the site that AZT, ddI and the other nukes target. "Unless you have a genetic research laboratory at your doorstep, the new test is the most effective way to get a genotypic assay," said Dr. Brian Gazzard of Chelsea and Westminster Hospital in London, adding that the technology is soon likely to be adapted to assess resistance to protease inhibitors. The new test is about to go on the market in Britain. The Treatment Action Group's Spencer Cox predicted that "within a year or two, the RT test will be standard procedure."

But making treatment decisions based on tests measuring resistance is a risky practice. Doctors who use Specialty Labs' genetic-testing service, the first on the market, report that a list of genotypic mutations is, at best, only one piece of the puzzle. These lab tests can't measure whether-or what proportion of-the virus in your body is actually resistant to a drug, so their results must be interpreted with great care, in the context of viral load, CD4 counts and other factors.
