Loading Zone

Your virus is rising. Don’t panic.

August 1, 1999 By Bob Roehr

Has my treatment failed?” As more PWAs pose this question, doctors are using recent research on viral load changes to fine-tune their answers. But uncertainties remain about how to interpret and act on low levels of virus.

There is broad consensus on one point: The “gold standard” is a consistently undetectable viral load according to the most sensitive test available. “The steeper the decline in viral load, the more lasting the response,” says Ben Cheng, an HIV treatment expert at Project Inform in San Francisco. One study has shown that failure to drop below 400 copies (the cutoff point of the standard test) by week 12, and below 50 copies (a level only measurable on an ultrasensitive test) by week 24, significantly increases the long-term likelihood of rebound to detectable virus levels.

WHEN TO TEST AND SWITCH

Aggressive AIDS docs such as Steven Deeks of San Francisco and Douglas Ward of Washington, DC, monitor viral loads closely: Deeks tests patients undergoing treatment every month; Ward, every three months (and more often if viral load becomes detectable on the below-50 assay). Both see any increase as reason to immediately run a second test.

A confirmed increase to as low as 100 copies is enough to make them consider adding or substituting drugs—especially for those patients on their first or second regimen, who have several treatment options left. “The longer there is viral activity, the more mutations there will be and the tougher it will be to find a rescue regimen,” Ward says.

But some AIDS docs challenge this quick-change approach. “Treating a small increase as an emergency is an entirely inappropriate response,” says Joseph Sonnabend, a longtime AIDS specialist in New York City. “Many of my patients have had viral load blips that later disappeared or stabilized. In fact, some patients are still doing well with a 5,000 count. What matters is the trend—is it stable or steadily increasing? If you respond to each blip, you risk exhausting the limited available treatments, while needlessly terrorizing the patient for strictly theoretical reasons.” And even Deeks acknowledges that “we don’t really know how low of a viral load is low enough” for lasting drug effectiveness.

IS “FAILURE” FAILURE?

“For people who don’t have options, the question is, once viral load becomes detectable, is it better to stop therapy to try to keep from accumulating more mutations?” says Cheng. The answer? “Nobody knows.” Deeks’ research at the University of California at San Francisco has found that a regimen can help even after most docs would say it has “failed.” In his study, the CD4 cells of patients on a successful protease inhibitor regimen had an average half-life of 77 days, compared to only 24 days for those of untreated PWAs. But with PWAs who maintained their regimen even after viral rebound, their CD4 cells had a half-life of 43 days.

Some researchers theorize that the mutations required for HIV to escape protease inhibitors may have made it less deadly to CD4 cells. “That could explain some of the surprising discordance we’ve seen in patients with both high viral load and high CD4 cells,” says Spencer Cox, a PWA with the Treatment Action Group (TAG) in New York City. But several studies have shown that high levels of replicating virus eventually take their toll on CD4 cells, although the counts decline at very individual rates.

WOMEN AND CHILDREN

Women may need to interpret their viral loads a little differently. Several studies suggest that AIDS progresses more rapidly in women than in men with the same viral load. (Other research found no differences.) The federal treatment committee considered the data inconclusive and argued that the broad existing guidelines can accommodate any gender variations. Disagreement centers on interpreting the midrange of women’s viral load and CD4 counts.

Young children have faster metabolisms and thus higher viral loads than adults do, necessitating age-based treatment recommendations.

BALLPARK FIGURES

Ward calls viral load “a real soft test” with varying results. “You could run the same tube of blood three times and get a variation of 5,000,” he says. Plus, vaccinations or acute illnesses can skew the results. He urges patients to “look at the ballpark”—the magnitude of the change in viral load.

In the end, a viral load count is just one reading to consider along with other test results and treatment history. Amid all the seeming certitude of measurements, TAG’s Cox reminds doctors, “You’re not treating a lab number. You’re treating a patient.”

For federal HIV treatment guidelines, go to www.hivatis.org/trtgdlns.html. Project Inform’s take on women’s viral load is at www.projinf.org/pub/ww_index.html.

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