Quality of life assessment in HIV clinical research in resource-limited settings: better late than never.

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Summary

Comprehensive and sustained optimal care for HIV-infected patients can now be achieved in resource-constrained settings thanks to the sustainability of programs providing antiretroviral therapy. However the primary goals of HIV virological suppression and improved survival need to be accompanied by a substantial improvement in patient's experience with HIV care and treatment. An assessment of both patient's quality of life and perceived toxicity and symptoms should now be systematically integrated into HIV clinical research in resource-constrained countries. This will allow treatment strategies aimed at optimizing the durability of response to antiretroviral therapy in these settings to be properly evaluated and compared.

The current scale-up of antiretroviral therapy (ART) in resource-constrained settings presents an unprecedented opportunity to radically reduce the burden of AIDS by improving survival rates and ensuring the virological control of HIV infection (1). ART access has transformed HIV into a chronic disease, but the burden of associated side-effects makes the sustainability of long–life treatment questionable. Despite these therapeutic progresses, stigma is frequently experienced by HIV-infected patients and has an adverse impact on health behaviours such as adherence and systematic condom use (2, 3).

The routine follow-up of HIV-infected patients in resource-constrained settings is solely based on a non-optimal set of clinical and biological indicators aimed at monitoring ART efficacy. This latter however is highly dependent on adherence, which in turn is mainly influenced by patients' perceptions of treatment experience (4). Patient experience with treatment can be measured either by generic (5) or HIV-specific (6) quality of life scales, or by other indicators of perceived health such as the HIV symptom index (7). Quality of life assessment is not only aimed at evaluating individual well-being, but also has public health purposes as high quality of life scores can positively influence health behaviours. Indeed, self-reported symptoms are associated with non-adherence to ART in both high- and low-income countries (8-10). Similarly, poor perceived health has been shown to be a major correlate of unprotected sex among HIV-positive patients in Europe (11, 12), and a similar relationship was recently shown in West-Africa (13).

In high-income countries, a wide variety of powerful ART regimens is available and the assessment of quality of life in clinical research is becoming an additional criterion to guide providers in selecting the best treatment option. For instance, in a recent trial comparing Lopinavir monotherapy with Lopinavir associated triple therapy (10), the number of self-reported symptoms was found to be an important discriminatory measure as it revealed major differences in patient well-being. Similarly, a significant improvement in quality of life scores has been reported in patients switching from enfuvirtide to raltegravir (14). While several trials comparing ART regimens are ongoing in resource-constrained settings, the lack of data collection of patient reported outcomes in such trials could have a serious influence on decisions regarding the best treatment options to take when different treatment strategies show similar efficacy.

To tackle this issue, there are at least three major reasons justifying the implementation of research on quality of life issues in resource-constrained settings. First, it is now conceivable that comprehensive and sustained optimal care can be achieved thanks to the sustainability of ART programs in such settings (15). It is therefore crucial to aim not only at achieving

virological suppression and improving survival, but also at optimizing patient perceived health. Second, the recently released WHO guidelines stress that, in resource-constrained settings, ART should be initiated among all HIV-infected patients with a CD4 count below 350 cells/ml (16). Similarly, all pregnant and breastfeeding women in these settings should now be offered ART to both improve maternal health and prevent mother-to-child transmission of HIV (17, 18). Hence, an increasing proportion of patients will soon be on ART without having had any experience of symptomatic HIV disease. In this context, research on therapeutic strategies which are able to guarantee both efficacy and improvement in quality of life is now urgently required. Third, mathematical models have recently shown that an intervention based on annual universal HIV screening followed by immediate ART initiation for all those infected would dramatically reduce HIV incidence in a generalised epidemic setting (19). One cannot seriously expect this intervention to be widely implemented without an adequate prior ascertainment of both the public and individual benefits. For this reason, quality of life assessment should be introduced in forthcoming population based trials aimed at evaluating this "treatment as prevention" hypothesis.

Tools aimed at measuring quality of life and other patient reported outcomes in the context of HIV infection were initially designed for high-income settings. There are no major methodological barriers to the expansion of these tools for the evaluation of patient well-being in lower income countries, as demonstrated recently by their successful implementation in Cameroon (20).

It would be unethical not to develop research on quality of life and patient perception of ART in developing settings, especially in sub-Saharan Africa. If “do no harm” remains the main principle of all medicine, the integration of quality of life assessment in comprehensive research programs on HIV care is a major ethical and public health priority.

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