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Efavirenz/Emtricitabine/Tenofovir Disoproxil Fumarate Triple Combination Tablet

A Viewpoint by Jose R. Arribas

Hospital La Paz, Autonoma University School of Medicine, Madrid, Spain

The imminent availability in the developed world of the efavirenz/emtricitabine/tenofovir disoproxil fumarate (DF) triple combination tablet means that one of the historical goals of antiretroviral therapy has been achieved, namely the ability to successfully treat HIV infection with one pill once a day. It is quite remarkable that this accomplishment has been reached less than 10 years since the discovery of highly-active antiretroviral therapy (HAART).

The three drugs combined in this tablet belong to the preferred category of antiretrovirals for initial treatment in expert guidelines. Tenofovir DF is the prodrug of tenofovir, a potent nucleotide reverse transcriptase inhibitor (NRTI) that has not been associated with lipoatrophy, one of the most feared adverse events of HAART. Emtricitabine is an NRTI which is very similar to lamivudine, but has a longer plasma half-life. Efavirenz is a very potent non-nucleoside reverse transcriptase inhibitor (NNRTI). In clinical trials, efavirenz-containing regimens have invariably shown favourable results versus regimens containing protease inhibitors, nevirapine or three NRTIs. Tenofovir, emtricitabine and efavirenz all have a benign metabolic profile with little impact on serum cholesterol and triglycerides. Taken together, these characteristics place the tablet as a first-line choice for the treatment of antiretroviral-naive patients.

Although this tablet represents a very important advance in the field of HIV therapy, it is not routinely indicated for the initial treatment of all HIV-infected patients. The spread of primary HIV resistance makes it imperative to test every patient for susceptibility to all three components before starting treatment. Because of the efavirenz component, the tablet is not appropriate for women planning pregnancy or for patients who are intolerant of the CNS adverse events associated with this NNRTI. Additionally, the doses of tenofovir DF and emtricitabine should be adequately adjusted in patients with pre-existing renal impairment. Finally, clinicians should be aware that patients with very poor adherence may become rapidly resistant to efavirenz and emtricitabine.

In summary, although the final impact of the efavirenz/emtricitabine/tenofovir DF triple combination tablet on treatment compliance and health-related quality of life remains to be completely evaluated, it is clear that the ease with which it can be administered will be highly welcomed by patients committed, for the time being, to lifelong antiretroviral treatment. ▲