

Once Daily Combination Regimen for HIV Infection

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Recently, numerous studies examining different approaches in HIV prevention were published, generating considerable interest and excitement among HIV provider community. These promising data led to the call for an AIDS-free generation in near future (1). Most of the guidelines for offering ART to any HIV-infected patients are based in large on health benefits of ART to an individual patient and have little or nothing to do with treatment in comparison to prevention (TasP) component. There is extensive evidence, showing that earlier initiation of ART directly benefits patients by delaying progression of HIV and HIV-associated comorbidities (1). In addition, recently there is compelling evidence regarding public health benefits of earlier ART initiation, particularly as demonstrated by the groundbreaking HIV Prevention Trial Network (HPTN) (1).

In May 2012, a US food and Drug Administration (FDA) advisory committee endorsed Stribid pill, which was formerly known as "Quad" for patient with untreated HIV infection. This pill is the first once-daily, single-tablet regimen containing an HIV integrase inhibitor as well as the first new front-line drug available for HIV in recent years. The once daily dosing and pill formulation should hopefully improve patient compliance (2). The pill is a combination of the investigational integrase inhibitor elvitegravir and boosting agent cobicistat with Truvada, which consists of the nucleotide reverse transcriptase inhibitors emtricitabine and tenofovir. It is the first once-daily, single-tablet regimen containing an HIV integrase inhibitor (2). This is the first new front-line drug we have had for a fairly long period of time. It is different in the sense that not only it has a new integrase inhibitor but it also has a new boosting agent cobicistat instead of ritonavir - which was used in the past (2). In two large double-blind randomized phase, three trials published

in Lancet in June, revealing that the new once-daily combination drug was as effective and as safe (2) as other recommended HIV drug regimens among treatment-naïve adults. The other regimens were efavirenz/emtricitabine/tenofovir and ritonavir boosted regimen of atazanavir/efavirenz/tenofovir (2). Furthermore, the drug has a generally accepted safety profile; however there should be an effective monitoring for potential kidney problems among patients, taking the pill. In clinical trials, patient taking the new regimen were more likely to experience adverse renal events. Tenofovir, a component of the new drug combination, has been associated with some new and chronic kidney problems for some patients. Cobicistat is also a somewhat tricky, because it changes lab readings of kidney functions in a different way with what doctors have expected (2).

As with some other HIV drugs, label of the new combined pill carries a boxed warning concerning the possibility of severe liver problems and lactic acid build-up in blood, which both can be fatal. According to FDA news recently released, "the box warning also states that Stribild is not approved to treat chronic hepatitis B virus infection". Although the combination regimen is approved for treatment-naïve patients, some patients receiving an existing regimen may want to switch to that, but the decision should be made on a case-by-case basis. For a successful regimen in which the patients have achieved success by getting no detectable virus, there is no reason to change the treatment as many physicians hold. If problems such as side effect, resistance, convenience or pain arise, this drug becomes a candidate (2). In Iran, the overview of HIV/AIDS guidelines shows that there is an emphasizing necessity of treatment in early stages of HIV/AIDS and the use of combination therapy. Although the country is dealing with numerous issues

in terms of access to antiretroviral drugs such as sanction and financial problems, more research in prevention and treatment of HIV/AIDS can provide valuable services to patients afflicted by HIV/AIDS in near future in Iran (3).

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