



Ask Devon— This column is graciously written by Devon Flynn, PharmD at OHSU HIV Clinic and Long Do, PharmD Candidate



OVERVIEW OF NEW INTEGRASE INHIBITORS

The introduction of the first Integrase Inhibitor, raltegravir, in 2009 expanded the range of effective options for combination antiretroviral therapy. Raltegravir is a preferred option in an HIV regimen because it is well tolerated, has few drug interactions, and is efficacious. In 2012, a second Integrase Inhibitor, elvitegravir, was approved as a complete single tablet regimen with cobicistat (boosting agent), emtricitabine, and tenofovir. A third Integrase Inhibitor, dolutegravir, is now in phase III of development and is currently under review for approval by the Food and Drug Administration (FDA).

WHAT ARE INTEGRASE INHIBITORS?

The Integrase Inhibitor (InSTI) is a class of antiretrovirals that target one of the enzymes required for HIV replication. This enzyme is responsible for the “integration” of the viral DNA into the host cell’s (CD4 cell’s) DNA. Specifically, they block the “strand transfer” phase of integration. InSTIs are active against both HIV-1 and HIV-2. *Please see Table 1 for a comparison of the Integrase Inhibitors.*

WHAT ARE THE NEWEST INTEGRASE INHIBITORS?

ELVITEGRAVIR + COBICISTAT

Elvitegravir is the second InSTI approved by the FDA. The main advantage of elvitegravir over raltegravir is that it is available as a complete single tablet regimen and dosed once daily. However, elvitegravir does not reach therapeutic concentration unless it is administered with a “booster” (i.e. cobicistat). It must also be taken with food (although, a small snack seems to be enough).

Cobicistat is a “booster” that increases the amount of elvitegravir that gets into the body and slows down how fast the body clears elvitegravir from the system. It is similar to ritonavir (Norvir®), but does not have any anti-HIV activity. Cobicistat, also can apparently be more easily co-formulated with other antiretroviral agents.

Next Meeting

JULY 9TH

MEDICAL UPDATE

MARIA KOSMETATOS,
FNP
MULTNOMAH COUNTY
HIV CLINIC

9-10:30 A.M.

800 NE OREGON

Unlike other integrase inhibitors, **there is a high risk for drug-drug interactions with the use of elvitegravir + cobicistat**. The elvitegravir component can be affected by other medications (either by other antiretrovirals such as protease inhibitors or non-nucleoside reverse transcriptase inhibitors or by non-HIV medications such as rifampin, phenytoin, or St John's Wart). The cobicistat component can affect other medications the same way it affects elvitegravir (which may or may not be OK, depending on the other medication).

Currently, elvitegravir and cobicistat are only available in a single combination tablet (Stribild®) that also contains emtricitabine and tenofovir. Co-formulations of cobicistat with other antiretrovirals such as darunavir and atazanavir are under development. An elvitegravir / cobicistat tablet formulation may also be available in the future.

DOLUTEGRAVIR

Dolutegravir is a second generation InSTI currently under review for approval by the FDA. It is dosed once daily and does not need a "booster." It can be taken with or without food. Regarding drug-drug interactions, dolutegravir is expected to be similar to raltegravir with a low risk for drug-drug interactions, but a few to be noted (i.e. with rifampin, phenytoin, etc).

In phase III clinical trials, dolutegravir based regimens have been shown to be as effective as efavirenz and raltegravir based regimens. Dolutegravir also appears to have a higher barrier to resistance than the first generation Integrase Inhibitors and is active against viral strains that are resistant to the other InSTIs.

Table 1: Comparison of Integrase Inhibitors

Drug	Dosing Frequency	Boosting Requirements	Food Requirements	Renal Adjustments	Risk for Drug-Drug Interactions
Raltegravir (RAL) Isentress®	Twice Daily	None	May take with or without food	None	Low
Elvitegravir(EVG) Stribild®	Once Daily	Use With Cobicistat	Take with food	Do not use Stribild® in patients with CrCl<70ml/min	High
Dolutegravir(DTG)* Brand name not yet available	Once Daily	None	May take with or without food	None expected**	Expected to be Low

*Information may change based on findings from clinical trials

**May require renal adjustment if co-formulated (i.e. with lamivudine / abacavir)

APPLY FOR DISABILITY BENEFITS FROM THE CONVENIENCE OF HOME

By Alan Edwards, Social Security Public Affairs

Have you been thinking about applying for Social Security disability benefits, but you are unable to visit a Social Security office to complete the interview? Or perhaps your disabling condition makes it difficult to visit a Social Security office. We have good news: you can complete your application for Social Security disability benefits from the convenience of your home. Get started at www.socialsecurity.gov/disability.

The application process involves determining 1) whether you have sufficient work to be eligible for Social Security; 2) the severity of your medical condition; and 3) your ability to work. Because we carefully review so many cases — more than three million each year — it can take us three to five months to determine whether you are eligible to receive benefits.

The amount of time it takes to make a decision on your application can vary depending on a number of factors, such as:

- the nature of your disability;
- how quickly we obtain medical evidence from you, your doctors, hospitals, or other medical sources; and
- whether we need to send you for a medical examination to obtain evidence to support your claim.

We have several important initiatives to speed up the process. For example, our Compassionate Allowances initiative allows us to fast-track certain cases of individuals with very severe disabilities. Two hundred different types of disabilities qualify for this expedited decision, and the list continues to expand. Since Compassionate Allowances began in 2008, the agency has fast-tracked more than 250,000 disability applications, getting benefits to people in a matter of days instead of months. Learn more about Compassionate Allowances at www.socialsecurity.gov/compassionateallowances.

Another way we speed up decisions is with our Quick Disability Determinations initiative, which uses technology to identify applicants who have the most severe disabilities and allows us to expedite our decisions on those cases. Read more about Quick Disability Determinations at www.socialsecurity.gov/disabilityresearch/qdd.htm.

There are things you can do to help speed up the decision process too. The more information you provide up front, the less time it will take us to obtain the evidence we need — and the faster we can make a decision on your application. The types of information we need include:

- medical records or documentation you have; we can make copies of your records and return your originals;
- the names, addresses, and phone numbers for any doctors, hospitals, medical facilities, treatment centers, or providers that may have information related to your disabling condition;
- the names, addresses, and phone numbers for recent employers and the dates you worked for each employer; and

your federal tax return for the past year.

If you're not able to work due to a disability and getting to an office is troublesome, don't worry. You can apply online for Social Security disability benefits at www.socialsecurity.gov/disability.

OFF TO THE PARK? SO IS SOCIAL SECURITY!

By Alan Edwards, Social Security Public Affairs

Now, in the heart of summertime, is time to think about spending some fun time with family and friends. So it is fitting that July is both National Vacation Month and National Park and Recreation Month.

Going on vacation — whether to visit some of the nation’s great national and state parks or traveling to other fun destinations — doesn’t mean you need to disconnect completely. In fact, our new mobile website makes it easy for you to get the Social Security information you need when you’re on the go. As long as you have an Internet connection, you’re connected to Social Security.

You might not take your laptop with you to a national park, but you’ll probably have your phone. You may be wondering: *just how much Social Security business can I do on a smartphone?* You may be surprised.

We recently released *Social Security Mobile* to allow for a smoother and more enjoyable online experience for people who want to access www.socialsecurity.gov using a smartphone. Most people who want to access Social Security by smartphone are interested in getting the information they need quickly and efficiently. To accommodate this “grab it on the go” frame of mind, we’ve designed a mobile site that is as easy on the eye as it is to navigate.

Social Security Mobile features 10 items of interest, easily accessible by touching the tiles on your smartphone’s screen. These items include popular topics from our standard website, such as frequently asked questions, Social Security card and number, and publications. For example, you can either read or listen to our entire library of publications on your smartphone. The quick summaries will make it easy to make sure you access the publication you want. As you relax beneath a tree, you may want to use the mobile site’s “decision tree” to help identify documents you need for a new or replacement Social Security card.

Will everything on our website be included in the mobile website? No. Instead, our mobile site is designed to bring you the content you’re most likely to want on the go.

Keep in mind that this is not an app you have to download. The website is conveniently designed to run on your smartphone’s browser. You don’t have to download anything from an app store; just visit www.socialsecurity.gov on your smartphone and you will automatically visit the mobile website. And if you decide you need to browse the full website, you can do that easily.

Remember, Social Security is happy to help you even when you’re enjoying a day at the park. We are always working for you, even when you are relaxing. Visit our mobile website at www.socialsecurity.gov from your smartphone today.

This newsletter is published by
[OHSU/ Partnership Project](#).

Our thanks to Kim Lewis and Myrna Walking Eagle for their patient proofreading, Barbara Danel for website posting and Annick Benson for distribution of the newsletter.

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