FIVE THINGS TO KNOW ABOUT ...

Single-tablet antiretroviral treatment (once daily)

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Single-tablet antiretroviral treatment taken once daily improves adherence and quality of life compared with multiple-pill regimens

Current guidelines recommend combination antiretroviral treatment for all patients with HIV infection.[1,2] The backbone of this treatment regimen is a dual nucleoside reverse transcriptase inhibitor combination, typically tenofovir/emtricitabine or abacavir/lamivudine, which is combined with a non-nucleoside reverse transcriptase inhibitor, integrase strand-transfer inhibitor or boosted protease inhibitor.[3] A meta-analysis of randomized controlled trials (RCTs) showed higher pill burden is inversely associated with adherence to combination antiretroviral treatment and virologic suppression, which provides a rationale for using single-tablet regimens.[4]

Abacavir/lamivudine/dolutegravir has the highest genetic barrier to resistance; however, there is a risk of hypersensitivity

Abacavir/lamivudine/dolutegravir is recommended as first-line treatment based on RCT evidence.[1,2] Abacavir is associated with severe hypersensitivity reactions in patients with the HLA-B5701 allele.[1,3] Pretreatment genetic testing is indicated, and abacavir should be avoided if test results are positive for the presence of the allele.[2,3] Dolutegravir is an integrase strand-transfer inhibitor with minimal adverse effects and a high genetic barrier to resistance.[1–3]

Tenofovir/emtricitabine/efavirenz is associated with neuropsychiatric adverse effects

Tenofovir/emtricitabine forms the backbone in three of four single-tablet regimens and is the preferred treatment for HIV/hepatitis B virus coinfection.[1] Tenofovir/emtricitabine/efavirenz is recommended only as an alternative regimen, because efavirenz is associated with neuropsychiatric symptoms and may increase suicidality.[1,2] Tenofovir may cause renal toxicity and osteoporosis.[1–3]

Tenofovir/emtricitabine/rilpivirine is less effective in patients with pretreatment HIV viral loads greater than 100 000 copies/mL or CD4 counts less than 200 cells/μL

Tenofovir/emtricitabine/rilpivirine should not be prescribed as initial treatment for these patients but is a recommended alternative regimen.[1–3] Rilpivirine is a non-nucleoside reverse transcriptase inhibitor with less central nervous system toxicity than efavirenz.[1] Adequate absorption requires administration in conjunction with a high-energy meal (> 400 kcal).[1] Rilpivirine should not be prescribed to patients taking proton pump inhibitors and should be prescribed with caution in patients taking other acid-lowering drugs.[1,3]

Tenofovir/emtricitabine/elvitegravir/cobicistat is well-tolerated but associated with multiple drug interactions

Tenofovir/emtricitabine/elvitegravir/cobicistat is recommended first-line therapy based on RCT evidence.[1] It is contraindicated if creatinine clearance is less than 70 mL/min.[1,3] Elvitegravir, which is an integrase strand-transfer inhibitor, has a lower genetic barrier to resistance than dolutegravir.[1,2] Cobicistat is a cytochrome P450 3A4 inhibitor that acts to increase elvitegravir levels in plasma.[2] However, it has the potential for multiple drug interactions (e.g., with statins and rifampin).[1–3]

References

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