

HAART CONSIDERATIONS FOR PATIENTS WITH CO-MORBID DISEASES

PATIENTS WITH HIV AND TUBERCULOSIS (TB)

Patients co-infected with HIV and TB present complex treatment issues, and consultation with an expert in the management of these diseases is highly recommended. Significant drug interactions requiring dose adjustments exist between many of the antiretroviral and antimycobacterial agents (especially the rifamycins), as detailed in *Appendix C*.

Co-infected patients may also exhibit a paradoxical worsening of TB-related signs and symptoms (e.g. night sweats, fevers, lymphadenopathy, and pulmonary findings) in the first several weeks after initiating HAART. These paradoxical reactions reflect IRS, and can be severe enough to require steroid therapy. The potential for severe IRS reactions to TB has prompted many expert clinicians to recommend that TB therapy be generally initiated before HAART. Further discussion of IRS and of the management of patients co-infected with HIV and TB can be found in *Chapter V: Recommendations for the Treatment of Opportunistic Infections (OIs) among Adults and Adolescents*.

PATIENTS WITH HIV AND DIABETES MELLITUS

Many PIs, as well as the NNRTI EFV, have been associated with insulin resistance. Hence, diabetic patients should be monitored closely for possible worsening of glucose control after starting PI-containing HAART regimens, and the diabetic regimen may need to be intensified. Significant drug-drug interactions between ARVs and diabetic agents have not been described. The use of metformin with NRTI-containing ARV regimens may increase the risk of lactic acidosis, but this has not been clearly documented in clinical practice.

PATIENTS WITH HIV AND CHRONIC LIVER DISEASE

All classes of ARV agents have been associated with liver toxicity, so extra caution is warranted in prescribing HAART for patients with chronic liver disease. NVP and RTV have been associated with the highest risk of liver toxicity and should therefore be avoided if other options exist, though the risk of liver toxicity using low doses of RTV to boost another PI is not clear.

For patients with chronic hepatitis B (HBV) infection, inclusion of 3TC and/or TDF in the HAART regimen should be considered because these agents are potent inhibitors of HBV replication and are useful in the clinical management of this disease. However, patients who have a history of 3TC monotherapy while co-infected with HBV and HIV likely developed HIV resistance to 3TC, compromising the efficacy of this agent in HAART regimens. Discontinuation of either of these agents in a patient with chronic HBV can be associated with an acute exacerbation of HBV. Further discussion of the management of patients co-infected with HIV and HBV can be found in *Chapter V: Recommendations for the Treatment of Opportunistic Infections (OIs) among Adults and Adolescents*.

PATIENTS WITH HIV AND RENAL DISEASE

Dose adjustment of some ARVs, especially the NRTIs, must be performed for patients with renal insufficiency or renal failure. Renal dosing for ARVs can generally be found in their respective packaging information.

PATIENTS WITH HIV AND OTHER SEXUALLY TRANSMITTED INFECTIONS (STIs)

Co-morbid STIs are commonly encountered in persons infected with HIV. Prompt diagnosis and treatment of STIs reduces the risk of HIV transmission to others. Recent data suggest that treatment of chronic herpes simplex virus (HSV) infection reduces the risk of transmission of HSV, may reduce the risk of HIV transmission, and likely reduces the level of HIV viraemia in patients not on HAART. Further discussion of the management of patients co-infected with HIV and HSV can be found in *Chapter V: Recommendations for the Treatment of Opportunistic Infections (OIs) among Adults and Adolescents*.

PATIENTS WITH HIV AND NEUROPSYCHIATRIC DISORDERS

Significant drug-drug interactions exist between many ARVs and medications used to treat seizure disorders, bipolar affective disorder, and anxiety disorders, as described in *Appendix C*. Use of certain agents in combination should be avoided altogether, while some agents can be combined safely as long as the dosage is adjusted appropriately. EFV should be used with caution in patients with a history of affective disorders.