Antiretroviral Treatment of Adult HIV Infection

RECOMMENDATIONS

Highlights of the recommendations by the International AIDS Society USA Panel's on antiretroviral treatment of adult HIV infection include:\(^1\)

- Antiretroviral therapy (ART) is recommended and should be offered regardless of CD4 cell count (A1a-CIII depending on CD4 cell count and existing conditions).
- ART is recommended and should be offered to persons during the acute phase of primary human immunodeficiency virus (HIV) infection, regardless of symptoms.
- ART should be started as soon as possible, preferably within the first 2 weeks of diagnosis, in patients with opportunistic infections (other than cryptococcal and tuberculous meningitis), with attention to drug interactions and the potential for immune reconstitution inflammatory syndrome.
- ART is recommended in all HIV-infected persons with tuberculosis (TB) and should be started within 2 weeks of TB treatment when CD4 cell count is below 50/µL and by 8 to 12 weeks for those with higher CD4 cell counts (A1a). The optimal timing for patients with TB meningitis is less certain, but ART should be started within the first 2 to 8 weeks of TB treatment and managed in consultation with experts.
- Abacavir/lamivudine (in patients with HIV-1 RNA levels <100,000 copies/mL) is now a recommended rather than alternative dual nucleoside reverse transcriptase inhibitor (NRTI) component of initial ART.
- Rilpivirine has been added as an alternative NNRTI component of the initial regimen.
- Coformulated elvitegravir/cobicistat/tenofovir/emtricitabine has been added as an initial regimen component, pending regulatory approval. Elvitegravir is an investigational integrase strand transfer inhibitor and cobicistat is an investigational pharmacokinetic booster.
- Given increased risk of fragility fractures in postmenopausal women, it may be prudent to consider avoiding tenofovir as part of initial therapy in this group.
- The recommended initial ART regimen in the setting of rifampin-based TB therapy is efavirenz plus 2 NRTIs.
- The recent recommendation for use of a 3-month, once weekly regimen of isoniazid with rifapentine for treatment of latent TB infection is not recommended for HIV-infected patients receiving ART.
- Health care practitioners and health systems should initiate strategies to monitor and improve entry into and retention in care and ART adherence and to incorporate and analyze quality-of-care indicators.

Readiness of the patient for treatment should be considered prior to initiating ART. ART should be recommended and offered regardless of CD4 cell count. The strength of the recommendation increases as the CD4 count decreases.

For patients with a CD4 cell count of 500/µL and **below:**
- Pregnant women
- Hepatitis B co-infection
- HIV-associated neuropathy
For patients with a CD4 cell count 500/µL and above:

- Age 60 years or above
- Hepatitis C co-infection
- During the acute phase of primary HIV infection, regardless of symptoms

### Table 1. Recommended and Alternative Initial Antiretroviral Regimens, Including Strength of Recommendations and Quality of Evidence

<table>
<thead>
<tr>
<th>Recommended Regimens</th>
<th>Alternative Regimens</th>
<th>Comments</th>
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<tbody>
<tr>
<td>NNRTI plus NRTIs</td>
<td>Nevirapine plus tenofovir/emtricitabine or abacavir/tenofovir (Elab)</td>
<td>Severe hepatotoxicity and rash with nevirapine are more common in initial therapy when CD4 cell count is &gt;250/µL in women and &gt;400/µL in men.</td>
</tr>
<tr>
<td>PI/r plus NRTIs</td>
<td>Darunavir/r plus tenofovir/emtricitabine (Elab)</td>
<td>Other alternative PIIs include fosamprenavir and saquinavir but indications to use these options for initial treatment are rare.</td>
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<tr>
<td>INSTI plus NRTIs</td>
<td>Raltegravir plus abacavir/tenofovir (Elab)</td>
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### Table 2. CCR5 Antagonist-Based and NRTI-Sparing Initial Regimens That Can Be Considered Only in Special Circumstances, Including Strength of Recommendations and Quality of Evidence

<table>
<thead>
<tr>
<th>Regimens</th>
<th>Comments</th>
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<tbody>
<tr>
<td>CCR5 antagonists (INSTI- and P&lt;sub&gt;2&lt;/sub&gt;,-, and INI-sparring)</td>
<td>Maraviroc plus tenofovir/emtricitabine or abacavir/tenofovir (Elab)</td>
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<tr>
<td>PI/r plus INSTI (NRTI-sparing)</td>
<td>Darunavir/ritonavir plus raltegravir (Elab)</td>
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</table>

Abbreviations: INSTI, integrase strand transfer inhibitor; NRTI, nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; R, ritonavir-boosted.

### Monitoring

Plasma HIV-1 RNA levels should be monitored frequently when treatment is initiated or changed for virologic failure, until they decrease below detection limits and regularly thereafter. Once the viral load is suppressed for a year and CD4 cell counts are stable at 350/µL or greater, viral load and CD4 cell counts can be monitored at intervals of up to 6 months in patients with dependable adherence. Baseline genotypic testing for resistance should be performed in all treatment-naive patients and in cases of confirmed virologic failure. HLA-B*5701 haplotype screening should be performed in any patient for whom abacavir is considered. Assessment of viral tropism is recommended before using maraviroc. Therapeutic drug monitoring is not recommended in routine care; however, selected patients might benefit from this intervention.
Maintenance of regimen potency is the objective when switching ART regimens. Virologic failure of an initial regimen (confirmed measurable viremia) should be identified and treated as early as possible with at least 2 fully active drugs to avoid the accumulation of resistance mutations. For NNRTI failures, the new combination usually should include a PI/r or an agent from a new class if a PI/r is not possible. Etravirine may be a useful component of a new regimen for NNRTI failure but must be supported by a potent combination including a PI/r. Depending on the resistance profile and options available, inclusion of agents from new drug classes (raltegravir or maraviroc) should be considered. Monotherapy with a PI/r should be avoided unless other drugs cannot be considered for reasons of toxicity/tolerability. Design of a new regimen should consider previous drug exposure, previous resistance profile, drug interactions, and history of intolerance/toxicity. Treatment interruptions should be avoided, except in the context of controlled clinical trials. Elective treatment interruptions should consider the different half-lives of the regimen components, with stopping the drugs in a staggered manner when an NNRTI is a component.

CMS STAR METRIC

CMS has not published a metric for this condition.

NCQA HEDIS STANDARD

NCQA has not published a metric for this condition.

REFERENCES


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MEDICAL POLICY COMMITTEE HISTORY AND REVISIONS

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<thead>
<tr>
<th>Date</th>
<th>History and Revisions by the Medical Policy Committee</th>
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<tr>
<td>9/4/2014</td>
<td>• Approved by MPC. No changes.</td>
</tr>
<tr>
<td>9/6/2012</td>
<td>• Approved by MPC. Added updates for 2012 including new recommendations.</td>
</tr>
<tr>
<td>12/1/2011</td>
<td>• New template design approved by MPC.</td>
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<tr>
<td>12/2010</td>
<td>• New. Approved by MPC.</td>
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