Guidance for Non-HIV-Specialized Providers Caring for Persons with HIV Displaced by Disasters

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Guidance for Non-HIV-Specialized Providers Caring for Persons with HIV Who Have Been Displaced by Disasters (such as a Hurricane)

Essential Information for Managing Patients with HIV who are Receiving Antiretroviral Therapy

September 14, 2018

Prepared by:
HHS Panel on Antiretroviral Guidelines for Adults and Adolescents
HHS Panel on Antiretroviral Therapy and Medical Management of Children Living with HIV
HHS Panel on Treatment of Pregnant Women with HIV Infection and Prevention of Perinatal Transmission
HHS Panel on Opportunistic Infections in HIV-Infected Adults and Adolescents
HHS Panel on Opportunistic Infections in HIV-Exposed and HIV-Infected Children

For more detailed information regarding treatment and care for patients with HIV, visit the [medical practice guidelines for HIV/AIDS](https://aidsinfo.nih.gov/guidelines).
# Table of Contents

**Introduction** ......................................................................................................................................................3  
**Initial Assessment** .............................................................................................................................................3  
**Useful Web-Based Resources** ..........................................................................................................................4  
**Medication Management Strategies**  
  1. Antiretroviral Therapy Management for Patients Who Were Receiving Treatment Prior to Displacement .................................................................................................................................4  
  2. Caring for the Pregnant Woman with HIV ...........................................................................................................5  
  3. Treatment and Prevention of Opportunistic Infections ............................................................................................5  
  4. Caring for Patients on Methadone Maintenance Therapy ..........................................................................................5  
  5. Vaccinations ...........................................................................................................................................6  
**Appendix A: Short Intake Form for Persons with HIV Seeking Care** .................................................................7  
**Appendix B: Web-based Resources for Treating and Preventing HIV Infection** .................................................8  
**Appendix C: Antiretroviral Medications that Can Be Switched Temporarily Due to Supply Shortage** ...............9
Introduction

The following information provides guidance to health care providers attending to the medical needs of adults and children with HIV who have been displaced from disaster areas and who have not yet secured HIV care in the areas where they have relocated.

If possible, management of antiretroviral therapy (ART) should be done with the assistance of clinicians with experience in HIV care. Medical consultation may also be available at specific local or regional HIV clinics. After the initial assessment of a patient’s immediate medical needs, the patient should be referred to the care of an HIV clinician in the area if at all possible.

The recommendations in this guidance are based on the current standard of care for persons with HIV infection, which emphasize the following points:

- ART is recommended for all patients, regardless of CD4 T lymphocyte (CD4) cell count.
- Interruptions of ART should be avoided or kept to a minimum period of time.
- If patients report successful treatment without side effects from their ongoing therapy, that treatment regimen should be continued or reinstituted as soon as possible.

Initial Assessment

1. Assess the patient’s general health and need for immediate medical intervention. Acute illnesses should be diagnosed and attended to promptly.

2. Obtain the following information from the patient (see Appendix A for an intake form that clinicians can use when evaluating a patient):
   a. Name, location, phone number, pager number, and email address of the primary HIV care provider/clinic and/or research staff (if the patient is participating in a research study, such as a clinical trial).
   b. The name, location, and phone number of the pharmacy where the patient obtained medications.
   c. Pertinent medical history. This includes whether the patient is currently being treated for opportunistic infections (OIs), hepatitis B virus (HBV) or hepatitis C virus (HCV) infection, malignancies, or other conditions, such as hypertension or diabetes mellitus. A medical history should also include whether a patient is on opioid replacement therapy, such as methadone maintenance therapy (MMT) for opioid addiction.
   d. Latest known CD4 cell count and HIV viral load, with the approximate date when they were obtained.
   e. A list of current medications, including:
      i. Antiretroviral (ARV) drugs. Images of Food and Drug Administration (FDA)-approved ARV medications can be found here.
      ii. Medications for treatment of OIs.
      iii. Medications for prevention of OIs.
      iv. Any investigational medication. If the patient is participating in a clinical trial, obtain information about the clinical trial site and contact information, if available.
      v. Other medications.
   f. History of drug allergies and the types of reactions experienced, especially if there is any history of serious reactions to ARV medications (such as abacavir) or drugs used for the treatment or prevention of OIs (such as trimethoprim-sulfamethoxazole). Patients who have had positive genetic tests for the HLA-
B* 5701 allele should not be given abacavir (Ziagen™) or fixed-dose combinations containing abacavir (Epzicom™, Trizivir™, or Triumeq™), because HLA-B* 5701 predisposes patients to life-threatening hypersensitivity reactions.

g. History of intolerance to ARV medications and other medications.

### Useful Web-Based Resources

A number of web-based resources may be useful for clinicians and other health care professionals when providing care for displaced persons with HIV (see Appendix B at the end of this document).

### Medication Management Strategies

Patients who had their ART, prophylaxis, and/or treatment for OIs interrupted by disaster-related displacement should restart these medications as soon as possible.

1. **Antiretroviral Therapy Management for Patients Who Were Receiving Treatment Prior to Displacement**

   a. All ARV drugs should be continued or restarted as soon as possible.

   b. Similar to HIV, interruption of treatment for HBV and/or HCV infection is not recommended. For most patients who have both HIV and HBV infection, HBV treatments are part of the ARV regimen due to dual activity for some nucleoside reverse transcriptase inhibitors, including tenofovir disoproxil fumarate (or tenofovir alafenamide), emtricitabine, and lamivudine. These medications should remain as part of a patient’s ARV regimen.

   c. Treatment interruptions due to disaster displacement should not prompt an attempt to modify a regimen; rather, the priority should be to resume the patient’s original regimen as soon as possible, as long as the patient reports tolerating the regimen.

   d. The patient should be on a combination regimen consisting of at least two or three different ARV drugs. Many ARV drugs are now available in fixed-dose formulations where two or more drugs are coformulated into one pill.

   e. If a patient cannot recall drug dosages or cannot recall the medications in a regimen, use pill posters to assist the patient with recall (e.g., this reference guide to HIV medications), consult an HIV care specialist or consultation service for recommendations, or contact the pharmacy or affiliated local pharmacy chain store where the patient most recently obtained medications.

   f. If combination pills are not available, some ARV medications are interchangeable if needed. See Appendix C for a list of these products. Clinicians should consult HIV specialists if there are additional questions regarding switching ARV medications due to supply shortages.

   g. ARV medications may interact with each other and with many other drugs. Please consult product labels, an HIV care specialist, or a pharmacist when concerned about drug-drug interactions, especially if new medications will be prescribed for any reason. Tables with common ARV drug interactions can also be found in the latest adult and pediatric ARV guidelines.

   h. If a patient is receiving ibalizumab, an intravenous ARV that is given every 2 weeks, please consult an HIV specialist to determine ways to continue treatment.

   i. Pediatric patients may be taking liquid, granules, or powder formulations, some of which may need to be refrigerated or may need clean water for reconstitution. Special attention should be paid to appropriate weight- or surface area-based dosing for pediatric patients.
j. The **adult and pediatric ARV guidelines** also include information regarding dosing and adverse effects of ARV drugs. The guidelines also discuss special considerations for treatment in certain patient populations, such as patients with HBV, HCV, or tuberculosis coinfections, and ARV dosing for patients with renal or hepatic impairment.

k. If possible, obtain blood samples for general safety laboratory tests (such as a complete blood count and chemistry panel, including an assessment of renal and hepatic functions). Additionally, if feasible, CD4 cell count and HIV viral load tests should also be done and reported to the patient’s primary HIV clinician or referral physician. However, resumption or continuation of ART should not be delayed while these results are pending.

2. **Caring for the Pregnant Patient with HIV**

a. All pregnant individuals with HIV should enter into standard prenatal/obstetric care as soon as possible. When feasible, these patients should be referred to specialists with expertise in both obstetric and HIV management.

b. The National Perinatal HIV Hotline service provides 24-hour access to experts on managing HIV in pregnancy and caring for infants exposed to HIV: 888-448-8765. The hotline also serves as a clinicians’ network and can assist providers with identifying clinicians nationwide who have experience in managing HIV in pregnancy and caring for infants exposed to HIV.

c. All pregnant persons with HIV should receive ART regardless of their CD4 cell count.

d. If ART is discontinued during displacement, the regimen should be restarted as soon as possible.

e. Elective cesarean delivery is recommended for those who have HIV RNA >1,000 copies/mL in the late third trimester (i.e., >36 weeks’ gestation), regardless of whether they are receiving ARV drugs (see the **Perinatal Guidelines**).

f. Individuals with HIV who are in labor should receive their usual oral ARV regimen. Those with HIV RNA >1,000 copies/mL or with unknown HIV RNA levels should also receive intravenous zidovudine (abbreviated as AZT or ZDV). For dosing, see **Table 8** in the **Perinatal Guidelines**.

g. Infants should receive zidovudine prophylaxis for 4 to 6 weeks (see the **Perinatal Guidelines** for a more detailed discussion).

h. Individuals with HIV in the United States should not breastfeed their infants.

i. Treatment and prophylaxis for OIs should also be restarted. A section on “Special Considerations During Pregnancy” is available under each OI in the most current **guidelines for the treatment and prevention of OIs**.

3. **Treatment and Prevention of Opportunistic Infections**

Persons with HIV who are receiving therapy for the treatment or prevention of OIs should continue treatment or be restarted on treatment as soon as possible. For more detailed information and recommendations regarding the prevention and treatment of OIs in adults, including pregnant women, and pediatric patients, please refer to the **medical practice guidelines** for HIV/AIDS.

4. **Caring for Patients on Methadone Maintenance Therapy**

Disasters can disrupt other medical services that are important to persons with HIV infection, including MMT for opioid use disorder (OUD). Methadone clinics may close for unpredictable periods of time during weather-related disasters, leading to an interruption of MMT services. This may lead to an increase in drug-related issues and the risk of HIV transmission among patients who are taking methadone. For additional information, please visit the CDC’s website on methadone maintenance treatment during a disaster.
seeking or drug-using behaviors or opioid withdrawal in the absence of MMT availability. Federal law prohibits physicians from prescribing methadone for the treatment of OUD outside of a methadone clinic. Increasing access to buprenorphine replacement therapy, which can be prescribed by health care providers outside of a licensed methadone clinic, can help to preserve access to medication-assisted treatment for OUDs until MMT clinics re-open.

Providers should consider the following issues when caring for patients on MMT:

a. Providers who are licensed to prescribe buprenorphine can provide treatment for withdrawal symptoms by prescribing buprenorphine.

b. If a provider is unable to prescribe buprenorphine, or if buprenorphine is not available in a specific area, other medications can be prescribed to lessen withdrawal symptoms. For example, lofexidine is FDA approved to treat opioid withdrawal symptoms. The dose is 0.18 mg four times daily at 5- to 6-hour intervals for up to 14 days.

c. Providers should prescribe naloxone to all patients with OUD. Providers should also make sure that they have naloxone on hand to reverse an overdose should a patient relapse, use unknown quantities of methadone “from the street,” or attempt to self-medicate with other substances.

d. Tips for locating substance use and mental health services can be found in this document from the Substance Abuse and Mental Health Services Administration (SAMHSA).

5. Vaccinations

General Recommendations:

a. Practitioners should refer to the Centers for Disease Control and Prevention (CDC) website for updated general recommendations regarding immunizations for individuals displaced by disasters.

b. Inactivated influenza vaccine, when available, is recommended for all persons with HIV who are >6 months of age, including pregnant women. This is especially important if the residents continue to reside in crowded areas.

c. All patients who received immunizations at temporary medical care facilities should be given written documentation of the date and types of immunizations administered for their primary care providers. If available, immunization administration can be submitted to a local/area immunization registry.

d. Adult formulation of the tetanus/diphtheria toxoids/acellular pertussis (Tdap) vaccine should be given to adult and adolescent persons with HIV if it has been at least 10 years since the last vaccination or if the vaccination date is unknown.

e. Tdap should be given to all pregnant women with each pregnancy.

Specific Recommendations for Children with HIV:

Children with HIV should be vaccinated according to routine childhood immunization schedules. The complete recommendations on immunization for children with HIV can be found in the Pediatric OI Guidelines.

More information regarding ARV management in adult, pregnant, and pediatric patients, as well as recommendations for prophylaxis and treatment of specific OIs, can be found in the medical practice guidelines for HIV/AIDS.
## Appendix A: Short Intake Form for Persons with HIV Who Are Seeking Care

### Contact Information
- Patient Name
- Location
- Phone number
- Email address

### Providers
- Name, location, phone number, pager number, and email address of the primary HIV care provider/clinic and research staff (if the patient is participating in a research study, such as a clinical trial)
- Name, location, and phone number of the pharmacy where the patient obtained medications

### Medical History
- Pertinent past medical history (including history of opportunistic infections, malignancies, and other medical conditions such as hypertension and diabetes mellitus)
- History of hepatitis B or hepatitis C coinfection (according to the patient)
  - Hepatitis B:  ____ yes ____ no
  - Hepatitis C:  ____ yes ____ no
- Latest known CD4 cell count/percentage and HIV viral load, with approximate dates for when each was obtained

### Treatment
- Antiretroviral drugs, including dosing information (e.g., dose, number of pills, dosing frequency)
- Images of Food and Drug Administration (FDA)-approved antiretroviral medications can be found at go.usa.gov/xPgrP
- Medications for treatment of opportunistic infections
- Medications for prevention of opportunistic infections
- Any investigational medications
  - (if the patient is participating in a clinical trial, obtain information about the clinical trial site and contact information, if available)
- Other medications

### Drug Allergies/Intolerance
- History of drug allergies and the types of reactions experienced
  - Pay special attention to allergies to abacavir or drugs used for the treatment or prevention of opportunistic infections, such as trimethoprim-sulfamethoxazole. Patients who have had positive genetic tests for the HLA-B* 5701 allele should not be given abacavir (Ziagen™) or fixed-dose combinations containing abacavir (Epzicom™, Trizivir™, or Triumeq™).
- History of intolerance to antiretroviral medications and other medications
## Appendix B: Web-based Resources for Treating and Preventing HIV Infection

<table>
<thead>
<tr>
<th>Website</th>
<th>Information/Resources</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDSinfo guidelines for treating HIV and its complications</td>
<td>At this website, users can access:</td>
<td>Guidelines and drug database are also available as mobile apps (<a href="https://aidsinfo.nih.gov/apps">https://aidsinfo.nih.gov/apps</a>). These guidelines contain summary tables with drug dosing and drug interaction information.</td>
</tr>
<tr>
<td><a href="https://aidsinfo.nih.gov">https://aidsinfo.nih.gov</a></td>
<td>• Guidelines for treating HIV infection in adults and adolescents</td>
<td></td>
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<tr>
<td></td>
<td>• Guidelines for treating HIV infection in infants and children</td>
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</tr>
<tr>
<td></td>
<td>• Guidelines for treating and preventing opportunistic infections</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Information about antiretroviral drugs for HIV infection</td>
<td></td>
</tr>
<tr>
<td>Drugs That Fight HIV-1</td>
<td>Images of Food and Drug Administration (FDA)-approved antiretroviral drugs</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td>National HIV Clinician Consultation Center</td>
<td>Clinicians’ Warmline: 1-800-933-3413</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td><a href="http://nccc.ucsf.edu">http://nccc.ucsf.edu</a></td>
<td>Perinatal HIV Hotline: 1-888-448-8765</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td></td>
<td>PEPline: 1-888-448-4911</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td>Ryan White HIV/AIDS Medical Providers</td>
<td>HIV provider locator by geographical area</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td><a href="https://findhivcare.hrsa.gov/">https://findhivcare.hrsa.gov/</a></td>
<td></td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td>Post-Exposure Prophylaxis (PEP)</td>
<td>Resources for post-exposure prophylaxis against HIV for persons exposed:</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td><a href="https://www.cdc.gov/hiv/risk/pep/index.html">https://www.cdc.gov/hiv/risk/pep/index.html</a></td>
<td>• In an occupational setting</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td></td>
<td>• Through sexual contact or nonsterile injection of drugs</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td><a href="https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/20/87/post-exposure-prophylaxis--pep/">https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/20/87/post-exposure-prophylaxis--pep/</a></td>
<td></td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td>Pre-Exposure Prophylaxis (PrEP)</td>
<td>Resources for pre-exposure prophylaxis against HIV</td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td><a href="https://www.cdc.gov/hiv/risk/prep/index.html">https://www.cdc.gov/hiv/risk/prep/index.html</a></td>
<td></td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
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<tr>
<td></td>
<td><a href="https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/20/85/pre-exposure-prophylaxis--prep/">https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/20/85/pre-exposure-prophylaxis--prep/</a></td>
<td>Provides phone consultations for clinicians seeking assistance with treating people with HIV, as well as specialty advice for pregnant women with HIV (perinatal), and administration of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP).</td>
</tr>
<tr>
<td>Substance Use and Mental Health Treatment Locator</td>
<td><a href="https://findtreatment.samhsa.gov/1-800-662-HELP">https://findtreatment.samhsa.gov/1-800-662-HELP</a></td>
<td>U.S. government website with tips for accessing and locating substance use and mental health programs.</td>
</tr>
<tr>
<td><a href="https://store.samhsa.gov/shin/content/PEP18-TREATMENT-LOC/PEP18-TREATMENT-LOC.pdf">https://store.samhsa.gov/shin/content/PEP18-TREATMENT-LOC/PEP18-TREATMENT-LOC.pdf</a></td>
<td>1-800-487-4899</td>
<td>U.S. government website with tips for accessing and locating substance use and mental health programs.</td>
</tr>
</tbody>
</table>
Appendix C: Antiretroviral Medications that Can Be Switched Temporarily Due to Supply Shortage (page 1 of 2)

Clinicians are encouraged to consult an HIV specialist with additional questions about regimen switches, if needed. Many drugs that are used to treat HIV have significant interactions with other drugs that are used to treat HIV or other conditions. Before making changes to an HIV drug regimen or prescribing any new medicine to a person on antiretroviral therapy, evaluate the new medication for drug-drug interactions with concomitant medications. Tenofovir disoproxil fumarate (tenofovir DF)-based products may require dosage adjustment in patients with renal dysfunction. Dose recommendations can be found at: go.usa.gov/xPgTf.

<table>
<thead>
<tr>
<th>Brand (Generic Names)</th>
<th>Replace with – Brand (Generic Names)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atripla (efavirenz + tenofovir DF + emtricitabine)</td>
<td>Sustiva (efavirenz) + Truvada (tenofovir DF + emtricitabine) or Sustiva (efavirenz) + Descovy (tenofovir alafenamide + emtricitabine) or Symfi (efavirenz + tenofovir DF + lamivudine)</td>
</tr>
<tr>
<td>Biktarvy (bictegravir + tenofovir alafenamide + emtricitabine)</td>
<td>Tivicay (dolutegravir) + Descovy (tenofovir alafenamide + emtricitabine) or Tivicay (dolutegravir) + Truvada (tenofovir DF + emtricitabine)</td>
</tr>
<tr>
<td>Cimduo (tenofovir DF + lamivudine)</td>
<td>Truvada (tenofovir DF + emtricitabine) or Descovy (tenofovir alafenamide + emtricitabine)</td>
</tr>
<tr>
<td>Combivir (zidovudine + lamivudine)</td>
<td>Retrovir (zidovudine) + Epivir (lamivudine) or Generic zidovudine + generic lamivudine</td>
</tr>
<tr>
<td>Complera (rilpivirine + tenofovir DF + emtricitabine)</td>
<td>Edurant (rilpivirine) + Truvada (tenofovir DF + emtricitabine) or Edurant (rilpivirine) + Descovy (tenofovir alafenamide + emtricitabine) or Odefsey (rilpivirine + tenofovir alafenamide + emtricitabine)</td>
</tr>
<tr>
<td>Descovy (tenofovir alafenamide + emtricitabine)</td>
<td>Vemlidy (tenofovir alafenamide) + Emtriva (emtricitabine) or Truvada (tenofovir DF + emtricitabine) or Cimduo (tenofovir DF + lamivudine) or Viread (tenofovir DF) + Emtriva (emtricitabine) or Viread (tenofovir DF) + Epivir (lamivudine) 300 mg</td>
</tr>
<tr>
<td>Emtriva (emtricitabine)</td>
<td>Epivir (lamivudine)</td>
</tr>
<tr>
<td>Epivir (lamivudine)</td>
<td>Generic lamivudine or Emtriva (emtricitabine)</td>
</tr>
<tr>
<td>Epzicom (abacavir + lamivudine)</td>
<td>Ziagen (abacavir) + Epivir (lamivudine)</td>
</tr>
<tr>
<td>Evotaz (atazanavir + cobicistat)</td>
<td>Reyataz (atazanavir) + Tybost (cobicistat) or Reyataz (atazanavir) + Norvir (ritonavir) 100 mg</td>
</tr>
<tr>
<td>Genvoya (elvitegravir + cobicistat + tenofovir alafenamide + emtricitabine)</td>
<td>Stribrid (elvitegravir + cobicistat + tenofovir DF + emtricitabine), only if creatinine clearance (CrCl) &gt;70 mL/min. Consult an HIV expert if CrCl &lt;70 mL/min, or Biktarvy (bictegravir + tenofovir alafenamide + emtricitabine) or Tivicay (dolutegravir) + Descovy (tenofovir alafenamide + emtricitabine)</td>
</tr>
<tr>
<td>Isentress HD (raltegravir once-daily formulation—two 600-mg tablets per day)</td>
<td>Isentress (raltegravir) 400 mg twice daily</td>
</tr>
<tr>
<td>Juluca (dolutegravir + rilpivirine)</td>
<td>Tivicay (dolutegravir) + Edurant (rilpivirine)</td>
</tr>
<tr>
<td>Odefsey (rilpivirine + tenofovir alafenamide + emtricitabine)</td>
<td>Edurant (rilpivirine) + Descovy (tenofovir alafenamide + emtricitabine) or Edurant (rilpivirine) + Truvada (tenofovir DF + emtricitabine) or Complera (rilpivirine + tenofovir DF + emtricitabine)</td>
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</table>

Note: Lamivudine is also available as a generic drug.
## Appendix C: Antiretroviral Medications that Can Be Switched Temporarily Due to Supply Shortage (page 2 of 2)

<table>
<thead>
<tr>
<th>Brand (Generic Names)</th>
<th>Replace with – Brand (Generic Names)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prezcobix (darunavir + cobicistat)</td>
<td>Prezista (darunavir) + Tybost (cobicistat) or Prezista (darunavir) + Norvir (ritonavir) 100 mg</td>
</tr>
<tr>
<td>Stribild (elvitegravir + cobicistat + tenofovir DF + emtricitabine)</td>
<td>Genvoya (elvitegravir + cobicistat + tenofovir alafenamide + emtricitabine) or Biktarvy (bictegravir + tenofovir alafenamide + emtricitabine) or Tivicay (dolutegravir) + Descovy (tenofovir alafenamide + emtricitabine)</td>
</tr>
<tr>
<td>Symfli (efavirenz + tenofovir DF + lamivudine)</td>
<td>Atripla (efavirenz + tenofovir DF + emtricitabine) or Sustiva (efavirenz) + Truvada (tenofovir DF + emtricitabine) or Sustiva (efavirenz) + Descovy (tenofovir alafenamide + emtricitabine)</td>
</tr>
</tbody>
</table>
| Triumeq (dolutegravir + abacavir + lamivudine) | Tivicay (dolutegravir) + Epzicom (abacavir + lamivudine) or Tivicay (dolutegravir) + Ziagen (abacavir) + Epivir (lamivudine)  
**Note:** Abacavir and lamivudine are also available as generic products. |
| Trizivir (abacavir + zidovudine + lamivudine)  
Please note that the replacement products may have different doses or dose frequencies—consult product labels for dose information. | Ziagen (abacavir) + Retrovir (zidovudine) + Epivir (lamivudine) or Epzicom (abacavir + lamivudine) + Retrovir (zidovudine) or Combivir (zidovudine + lamivudine) + Ziagen (abacavir) or Generic formulations of these products (as individual drugs or in combination) |

*Note*: Abacavir and lamivudine are also available as generic products.