

<b>SUMMARY</b>	<b>DECISION SUPPORT</b>	<b>PATIENT EDUCATION/SELF MANAGEMENT</b>
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**ALL HIV INFECTED PATIENTS MUST BE MANAGED BY A CCHCS HIV SPECIALIST**

## GOALS

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| <ul style="list-style-type: none"> <li>Offer HIV screening to all</li> <li>Refer ALL patients with HIV to HIV specialists for evaluation with the appropriate baseline labs ordered</li> </ul> | <ul style="list-style-type: none"> <li>Identify ACUTE HIV seroconversion</li> <li>Initiate Antiretroviral therapy (ART) for all patients with HIV as soon as possible</li> </ul> |
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## ALERTS

<p><b>Inappropriate or suboptimal treatment regimens</b></p> <ul style="list-style-type: none"> <li>Patients receiving only one HIV medication rather than a multi-drug combination (note that some co-formulations exist)</li> <li>Patients on treatment for months with a persistently detectable viral load</li> <li>Patients with CD4 &lt; 200 cells/mm<sup>3</sup> who are not on Pneumocystis jiroveci (PCP) prophylaxis (see page 6)</li> <li>Patients with detectable viral load and a CD4 &lt; 50 cells/mm<sup>3</sup> who are not on Mycobacterium Avium Complex (MAC) prophylaxis (see page 6)</li> </ul>	<p style="text-align: center;"><b>Red Flags</b></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;"><b>ANY CD4</b></td> <td style="width:33%;"><b>CD4&lt;200</b></td> <td style="width:33%;"><b>CD4&lt;100</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>New onset fevers</li> <li>Weight loss &gt; 10%</li> <li>Fatigue</li> <li>Skin lesions</li> <li>Night sweats</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Dyspnea</li> <li>Cough</li> <li>Fevers</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Headache</li> <li>Blurry or lost vision</li> <li>Diarrhea</li> </ul> </td> </tr> </table>	<b>ANY CD4</b>	<b>CD4&lt;200</b>	<b>CD4&lt;100</b>	<ul style="list-style-type: none"> <li>New onset fevers</li> <li>Weight loss &gt; 10%</li> <li>Fatigue</li> <li>Skin lesions</li> <li>Night sweats</li> </ul>	<ul style="list-style-type: none"> <li>Dyspnea</li> <li>Cough</li> <li>Fevers</li> </ul>	<ul style="list-style-type: none"> <li>Headache</li> <li>Blurry or lost vision</li> <li>Diarrhea</li> </ul>
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## DIAGNOSTIC CRITERIA/EVALUATION (SEE PAGE 2 FOR HIV TESTING ALGORITHM)

DIAGNOSIS		
<p>Consider HIV in the following circumstances:</p> <ul style="list-style-type: none"> <li>Patients with known high risk behaviors prior to or during incarceration (tattoos, injection drug use, sexual exposure)</li> <li>Patients with symptoms suggesting immunocompromise (e.g., unexplained weight loss (&gt;10%), recurring fevers, rashes, diarrhea, enlarged lymph nodes, recurrent infections, thrush)</li> </ul>		
INITIAL EVALUATION		
<ul style="list-style-type: none"> <li>Date of diagnosis</li> <li>Transmission risk factors</li> <li>History of AIDS related conditions</li> <li>Lowest (nadir) CD4 count</li> <li>History of opportunistic infections</li> </ul>	<ul style="list-style-type: none"> <li>Current opportunistic infection prophylaxis (if applicable)</li> <li>HIV medication history</li> <li>HIV resistance history</li> <li>History of TB/STD/RPR</li> </ul>	<ul style="list-style-type: none"> <li>Vaccination history</li> <li>Smoking/substance use history</li> <li>Thorough review of systems</li> <li>Transmission/risk reduction strategies</li> <li>Baseline Labs (see page 4)</li> </ul>

## TREATMENT OPTIONS - INITIATING TREATMENT: GUIDELINES FOR WHEN TO START AND WHAT TO USE

**DO NOT INITIATE, CHANGE, OR DISCONTINUE HIV MEDICATIONS WITHOUT FIRST CONSULTING AN HIV SPECIALIST WHEN TO START HIV TREATMENT:**

**ART is recommended for all HIV infected individuals as soon as possible**, regardless of CD4 counts. ART should be initiated **ONLY** in consultation with an HIV specialist. Patients starting ART must be willing to commit to treatment and understand the risks and benefits of treatment and the importance of adherence. Patients and/or providers may elect to defer therapy based on clinical or psychosocial factors.

**WHAT TO USE:**

Monotherapy is **NEVER** acceptable for HIV treatment. In general, three agents are used in combination. See page 5 for recommended initial HIV combination treatment regimens. See page 8-11 for treatment precautions and side effects: noting specific contraindications and interactions between HIV medications and the patient's existing medications.

## MONITORING (See page 4 for monitoring details)

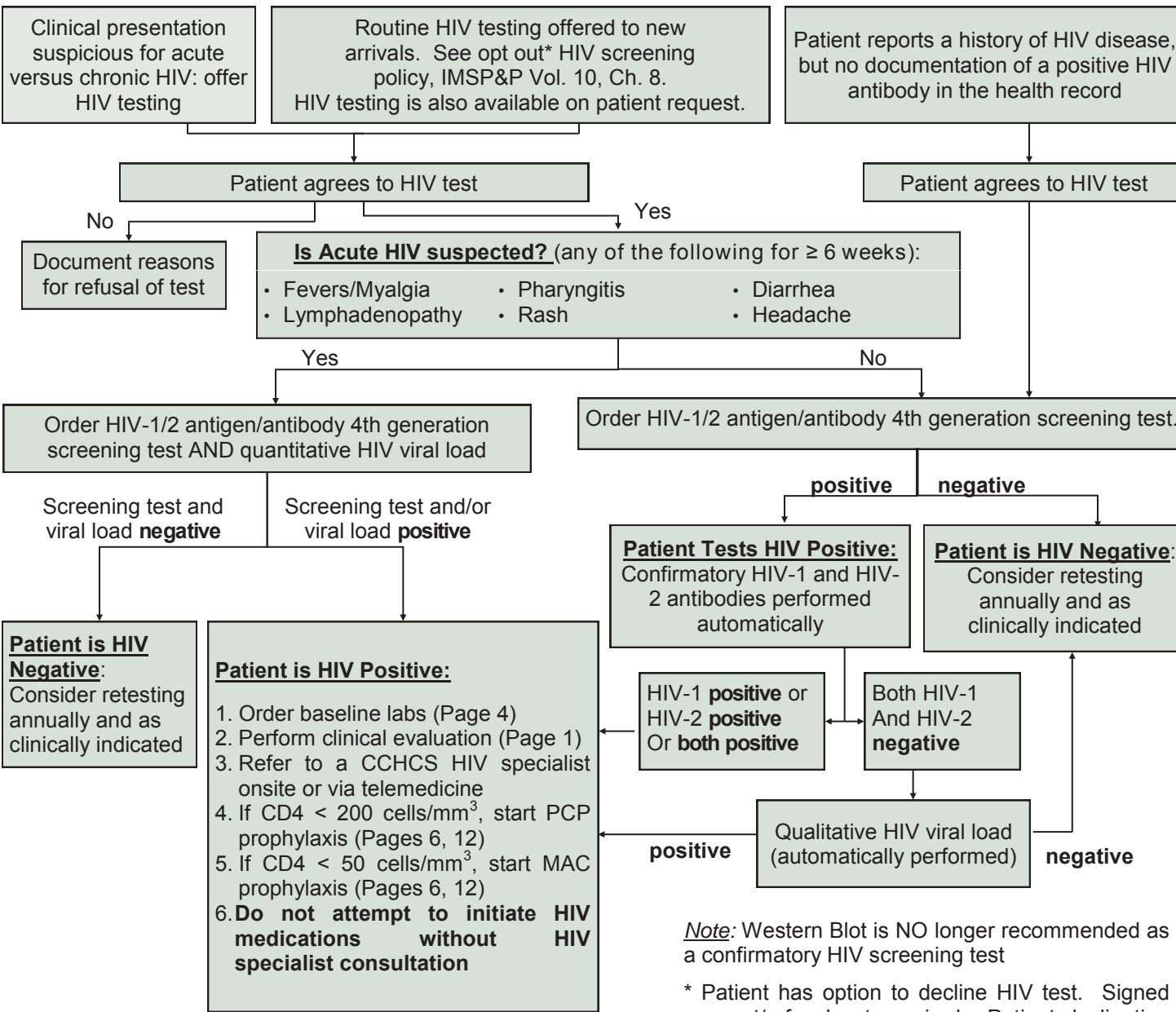
<ul style="list-style-type: none"> <li><b>Initial:</b> 2 weeks - 2 months</li> <li><b>Ongoing: (See page 4)</b> <ol style="list-style-type: none"> <li>1. Follow-up every 3-4 months while on ART (min. 2 years).</li> <li>2. Follow-up can be every 6 months for well controlled patients (stable on a suppressive Antiretroviral [ARV] regimen &gt;2 yrs whose viral load has been suppressed [&lt;20 copies/mL allowing for viral blips] and whose CD4 count has been consistently &gt;300 cells/mm for &gt; 2 years).</li> </ol> </li> </ul>	<p style="text-align: center;"><b>TABLE OF CONTENTS</b></p> <p>HIV TESTING ALGORITHM ..... PAGE 2</p> <p>NONOCCUPATIONAL POST-EXPOSURE PROPHYLAXIS (nPEP) ..... PAGE 3</p> <p>MONITORING HIV PATIENTS ..... PAGE 4</p> <p>ANTIRETROVIRAL TX REGIMENS..... PAGE 5</p> <p>OPPORTUNISTIC INFECTION PROPHYLAXIS ..... PAGE 6</p> <p>RECOMMENDED IMMUNIZATIONS..... PAGE 7</p> <p>MEDICATIONS ..... PAGE 8-12</p> <p>PATIENT EDUCATION ..... PE-1</p> <p>PATIENT EDUCATION (SPANISH) ..... PE-2</p>
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Contact the HIV Program mailbox with questions: [CPHCSHIVQuestions@cdcr.ca.gov](mailto:CPHCSHIVQuestions@cdcr.ca.gov)

*Information contained in the Care Guide is not a substitute for a health care professional's clinical judgment. Evaluation and treatment should be tailored to the individual patient and the clinical circumstances. Furthermore, using this information will not guarantee a specific outcome for each patient. Refer to "Disclaimer Regarding Care Guides" for further clarification. <http://www.cphcs.ca.gov/careguides.aspx>*

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## HIV TESTING



*Note:* Western Blot is NO longer recommended as a confirmatory HIV screening test

\* Patient has option to decline HIV test. Signed consent/refusal not required. Patient declination recorded in progress notes.

### HIV Screening Test result interpretation

HIV-1/2 antigen/antibody 4th generation	Reflex HIV-1 and HIV-2 antibodies	Reflex Qualitative HIV viral load	Diagnosis:
Positive	HIV-1 positive and/or HIV-2 positive	Not performed	HIV Positive
Positive	HIV-1 and HIV-2 negative	Positive	HIV Positive; Acute HIV
Positive	HIV-1 and HIV-2 negative	Negative	False Positive HIV test. No further workup recommended.
Negative	Not performed	Not performed	HIV Negative; no further testing recommended

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**PATIENT NONOCCUPATIONAL POST-EXPOSURE PROPHYLAXIS (nPEP)**  
 For employee occupational exposures, contact employee’s supervisor (do not use this Care Guide)  
 NOTE: Protocols for patient occupational and non-occupational exposures are the same.

## DIAGNOSTIC CRITERIA/EVALUATION

RISK LEVEL	HIGHER	LOWER	NEGLIBLE RISK
<b>Exposure</b>	<ul style="list-style-type: none"> <li>• Receptive or insertive vaginal or anal intercourse</li> <li>• Bites with blood exposure</li> <li>• Needle sharing</li> <li>• Hollow-bore needle sticks</li> </ul>	<ul style="list-style-type: none"> <li>• Receptive and insertive oral-vaginal, oral-anal, or oral-penile contact</li> </ul>	<ul style="list-style-type: none"> <li>• Kissing</li> <li>• Mouth to mouth resuscitation</li> <li>• Non bloody human bites</li> <li>• Solid bore needle sticks</li> <li>• Percutaneous injury from non-bloody sharps</li> <li>• Mutual masturbation without blood or skin breakdown</li> </ul>
<b>Source HIV status</b>	Positive or unknown	Evaluate case-by case: <b>Yes if:</b>	Any negative, positive or unknown
<b>nPEP warranted?</b>	YES	<ul style="list-style-type: none"> <li>• HIV positive and HIV viral load is elevated*</li> <li>• Mucosa is not intact (gingival disease, oral lesions)</li> <li>• Blood exposure noted</li> <li>• Genital ulcer disease</li> </ul> <b>Otherwise: no</b>	<b>NO</b>

## TREATMENT OPTIONS

**\*START NPEP WITHIN 72 HOURS OF EXPOSURE FOR 28 DAYS (≥73 HOURS SINCE EXPOSURE - NPEP IS NOT RECOMMENDED)**  
**PREFERRED REGIMENS FOR POST EXPOSURE PROPHYLAXIS (PEP) (INDICATED COMBINATIONS BELOW)**

Medication (2 pill regimen)	Sig	Prescribe This Quantity	Notes
Tenofovir/emtricitabine (Truvada®) *See pages 8-12 for side effects and dosing.	1 PO daily	Prescribe 28	Include: Do not exceed 28 days for post-exposure.
<i>with</i>			
Raltegravir (Isentress®) *See pages 8-12 for side effects and dosing.	400 mg 1 PO BID	Prescribe 56	Include: Do not exceed 28 days for post-exposure.
<i>or</i>			
Dolutegravir (Tivicay®) *See pages 8-12 for side effects and dosing.	50mg 1 PO daily	Prescribe 28	Include: Do not exceed 28 days for post-exposure.

## MONITORING Recommended Laboratory evaluation for patients who receive nPEP for HIV exposure

Test	Baseline	Week 2	Week 4	Week 12	Week 24
HIV antibody test	E, S*		E	E	E <sup>‡</sup>
Serum liver enzymes	E		E		
BUN/creatinine	E		E		
STD screen (gonorrhea, chlamydia, syphilis)	E,S		E		E <sup>€</sup>
HBV serology (HBVsAb, HBVsAg, HBVcAb)	E <sup>†</sup> ,S		E <sup>***††</sup>		E <sup>∞</sup>
HCV serology	E,S				E <sup>α</sup>
Pregnancy test (for women of reproductive age)	E		E <sup>***</sup>		
HIV viral load	S		E <sup>**</sup>	E <sup>**</sup>	
HIV resistance testing	S		E <sup>**</sup>	E <sup>**</sup>	

**E**=exposed **S**=source \*HIV testing of source is indicated for sources of unknown serostatus \*\*If determined to be HIV positive on follow up testing  
 \*\*\*Additional testing for pregnancy, STDs and HBV should be performed as clinically indicated  
 †Start HBV vaccination if evidence of non-immunity. ‡Only if HCV infection is acquired during the original exposure. €Syphilis only unless clinically indicated.  
 αIf exposed person is susceptible to Hep C at baseline. ∞If exposed person is susceptible to Hep B at baseline.

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## MONITORING HIV PATIENTS

Test	Baseline	Pre Treatment		On Treatment						Post Treatment	
		Q 3-6 mos <sup>2</sup>	Q yr	Starting treatment	2-8wks after start	Q1-2 mos	Q3-4 mos	Q 6 mos <sup>2</sup>	Q yr	If clinically indicated	At time of treatment failure
Clinical evaluation <sup>1</sup>	✓	✓		✓	✓	✓ <sup>4</sup>	✓	✓ <sup>2</sup>		✓	✓
HIV antibody test (HIV 1/2 Antigen/Antibody 4th generation)	✓										
CD4 count (lymphocyte subset panel 5)	✓	✓		✓			✓		✓ <sup>5</sup>	✓	✓
HIV viral load (HIV-1 RNA Quantitative PCR)	✓			✓	✓	✓ <sup>4</sup>	✓	✓ <sup>4</sup>			✓
HIV genotype	✓ <sup>3</sup>			✓ <sup>3</sup>						✓	✓
HIV Tropism Test (HIV-1 Coreceptor Tropism)										✓	✓ <sup>6</sup>
CBC with differential and PLT	✓	✓		✓	✓		✓ <sup>7</sup>	✓ <sup>2,7</sup>		✓	
Comprehensive Metabolic Panel	✓	✓		✓	✓		✓	✓ <sup>2</sup>	✓	✓	
Pregnancy Test <sup>13</sup>	✓			✓ <sup>16</sup>						✓	
Fasting glucose	✓		✓	✓			✓ <sup>9</sup>		✓	✓	
Fasting Lipid Panel	✓		✓	✓	✓ <sup>8</sup>				✓	✓	
Urinalysis	✓		✓	✓				✓ <sup>10</sup>	✓		
Rapid Plasma Reagin (RPR)	✓		✓						✓	✓	
Serum Phosphorus	✓ <sup>15</sup>			✓ <sup>15</sup>	✓ <sup>15</sup>		✓ <sup>15</sup>	✓ <sup>15</sup>	✓ <sup>15</sup>		
Urine gonorrhea/chlamydia (NAAT)	✓		✓						✓	✓	
Trichomoniasis screen (women)	✓									✓	
Hepatitis A Antibody total	✓									✓ <sup>12</sup>	
Hepatitis B Core Antibody Total (Not IGM)	✓									✓ <sup>12</sup>	
Hepatitis B Surface Antibody Immunity Quantitative	✓									✓ <sup>12</sup>	
Hepatitis B Surface Antigen	✓									✓ <sup>12</sup>	
Hepatitis B Viral Load	✓									✓ <sup>14</sup>	
Hepatitis C Antibody	✓		✓ <sup>11</sup>						✓ <sup>11</sup>	✓ <sup>11</sup>	
Varicella-Zoster Antibody, IgG	✓									✓ <sup>12</sup>	
Toxoplasmosa Antibody, IgG	✓		✓ <sup>11</sup>							✓ <sup>11</sup>	
Glucose-6-phosphate dehydrogenase (G6PD)	✓										
HLA-B5701	✓										
TB Screening	✓		✓						✓	✓	
PA and lateral CXR if not in health record	✓									✓	

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|--|---|---|
| <ol style="list-style-type: none"> <li>1. Components of the clinical evaluation include: <ul style="list-style-type: none"> <li>• ROS (fever, weight loss, cough, diarrhea, etc.),</li> <li>• PE (vitals, oropharynx, lymph nodes, skin, etc.),</li> <li>• Assessment: date of dx, note CD4, viral load, h/o OI, HIV medication regimen, previous medications,</li> <li>• Education: discuss risk reduction, adherence.</li> </ul> </li> <li>2. The HIV specialist may extend clinical follow up to every 6 months <u>ONLY IF</u>: <ul style="list-style-type: none"> <li>• CD4 has been greater than 300 x 2 years;</li> <li>• Housed at HIV designated institution;</li> <li>• Adherent with HIV clinic visits;</li> <li>• No active OI or malignancy;</li> <li>• On HIV medications with suppressed viral load &gt; 2 years.</li> </ul> </li> <li>3. Obtain an HIV genotype if no previous genotype is noted in the health record.</li> </ol> | <ol style="list-style-type: none"> <li>4. Obtain HIV viral load every 1-2 months after starting treatment until it is undetectable, then obtain every 3-4 months if consistently undetectable x 2 years, may increase interval to every 6 months.</li> <li>5. Obtain CD4 every 3-4 months during 1st 2 years of HIV treatment. After 1st 2 years, if CD4 300-500, may increase interval to every 12 months, if CD4 &gt; 500, CD4 re-check is optional. If CD4 &lt; 300, continue checking every 3-4 months.</li> <li>6. Only obtain tropism testing if considering maraviroc in next HIV regimen,</li> <li>7. Obtain CBC after ~4 weeks on treatment if on AZT; check CBC if CD4 ordered.</li> <li>8. Obtain repeat lipid panel after starting treatment only for those combinations that might impact lipids.</li> </ol> | <ol style="list-style-type: none"> <li>9. Obtain a repeat fasting glucose if abnormal on last check.</li> <li>10. UA pre-treatment and every 6 months while on treatment if regimen contains tenofovir (Atripla, Complera, Genvoya, Stribild, Truvada, Viread); monitor glucose and protein.</li> <li>11. Repeat serology if previously negative.</li> <li>12. Repeat serology post vaccination if applicable.</li> <li>13. In women of childbearing potential.</li> <li>14. If HBV Core Antibody is Positive and HBV Surface Antibody is negative or if HBV Surface Antigen Positive.</li> <li>15. In patients with chronic kidney disease who are on tenofovir containing regimens.</li> <li>16. In women of childbearing potential and planning to initiate dolutegravir.</li> </ol> |
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**ARV REGIMENS RECOMMENDED FOR TREATMENT - NAÏVE PATIENTS**

**DO NOT initiate, change, or discontinue HIV medications without first consulting an HIV specialist**  
[CPHCSHIVQuestions@cdcr.ca.gov](mailto:CPHCSHIVQuestions@cdcr.ca.gov)

RECOMMENDED REGIMENS - Those with optimal and durable efficacy, favorable tolerability and toxicity profile, and ease of use	COMMENTS						
<b>INTEGRASE STRAND TRANSFER INHIBITOR BASED REGIMENS</b>							
<ul style="list-style-type: none"> <li>• <b>Bictegravir/emtricitabine/tenofovir alafenamide (Biktarvy®)</b></li> <li>• <b>Dolutegravir (Tivicay®) and emtricitabine/tenofovir alafenamide (Descovy®) or emtricitabine/tenofovir disoproxil fumarate (Truvada)</b></li> <li>• <b>Dolutegravir/abacavir /lamivudine (Triumeq®)</b></li> <li>• <b>Cobicistat/elvitegravir/emtricitabine/tenofovir alafenamide (Genvoya®)</b></li> <li>• <b>Raltegravir (Isentress®) and tenofovir alafenamide (Descovy®) or tenofovir disoproxil fumarate/emtricitabine (Truvada®)</b></li> <li>• <b>Cobicistat/elvitegravir/emtricitabine/tenofovir disoproxil fumarate (Stribild®)</b></li> </ul>	<p><b><u>Abacavir and Abacavir/lamivudine and Dolutegravir/Abacavir/Laminidine</u></b></p> <ul style="list-style-type: none"> <li>• Should not be used in patients who test positive for HLA-B5701</li> </ul> <p><b><u>Atazanavir:</u></b></p> <ul style="list-style-type: none"> <li>• Should not be used in patients who require &gt; 20mg omeprazole equivalent per day</li> </ul> <p><b><u>Cobicistat:</u></b></p> <ul style="list-style-type: none"> <li>• Should not be started in patients with a pretreatment estimated CrCl&lt;70 ml/min</li> <li>• Cobicistat is a potent CYP3A inhibitor. It can increase the concentration of other drugs metabolized by this pathway. Multiple drug-drug interactions exist</li> </ul> <p><b><u>Darunavir:</u></b></p> <ul style="list-style-type: none"> <li>• Treatment experienced patients with a history of resistance to HIV medications require twice daily darunavir boosted with ritonavir.</li> <li>• Consult an HIV specialist for dosing requirements</li> </ul> <p><b><u>Dolutegravir:</u></b></p> <ul style="list-style-type: none"> <li>• Avoid use in women of child-bearing potential who desire pregnancy or not using effective contraception unless they have multi-drug resistant HIV with no other effective options.</li> </ul> <p><b><u>Efavirenz:</u></b></p> <ul style="list-style-type: none"> <li>• Now considered safe to use in pregnancy</li> <li>• Screen and monitor for antepartum depression in pregnancy</li> </ul> <p><b><u>Elvitegravir / cobicistat / tenofovir / emtricitabine</u></b></p> <ul style="list-style-type: none"> <li>• Should not be started in patients with a pretreatment estimated CrCl&lt;70 ml/min and should be changed to an alternative regimen if the patient's CrCl falls below 50 ml/min.</li> <li>• Cobicistat is a potent CYP3A inhibitor. It can increase the concentration of other drugs metabolized by this pathway. Multiple drug-drug interactions exist.</li> </ul> <p><b><u>Emtricitabine (Emtriva®)</u></b></p> <ul style="list-style-type: none"> <li>• May be substituted by <b>lamivudine (Epivir®)</b> and vice versa</li> </ul> <p><b><u>Tenofovir</u></b></p> <ul style="list-style-type: none"> <li>• Use with caution in patients with renal insufficiency</li> </ul>						
<b>PREFERRED REGIMENS FOR PREGNANCY</b>							
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Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. May 30, 2018. Available at <https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf>. Panel on Treatment of HIV-Infected Pregnant Women and Prevention of Perinatal Transmission. Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States. October 17, 2017. Available at <https://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf>

**Dental Management of HIV infected Patients**

HIV infected patients do not require special precautions or prophylaxis for dental care beyond standard precautions and the routine standard of care.

**Bold = Formulary**



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### PROPHYLAXIS TO PREVENT THE FIRST EPISODE OF OPPORTUNISTIC INFECTION (OI)

CONDITION	INDICATION	PREFERRED	ALTERNATIVE
<i>Pneumocystis jiroveci</i> pneumonia (PCP)	<p>CD4 count &lt; 200 cells/mm<sup>3</sup></p> <p>CD4 % &lt; 14% or history of AIDS defining illness</p> <p>CD4 count &gt; 200 but &lt; 250 cells/mm<sup>3</sup> and monitoring CD4 count at least every three months is not possible</p>	<p><b>Trimethoprim-sulfamethoxazole (TMP-SMX)</b>, one double strength orally daily (first choice)</p> <p>or</p> <p>one single strength orally daily</p>	<p><b>TMP-SMX</b>, orally one double strength three times a week</p> <p>or</p> <p><b>dapsone 100 mg</b> orally once daily or 50mg orally twice daily</p> <p>or</p> <p><b>dapsone 50 mg</b> orally daily and <b>pyrimethamine 50mg</b> orally weekly and <b>leucovorin 25 mg</b> orally weekly</p> <p>or</p> <p>Aerosolized pentamidine 300 mg via Respigard II® nebulizer every month</p> <p>or</p> <p>atovaquone 1,500 mg orally daily</p> <p>or</p> <p>atovaquone 1,500 mg and <b>pyrimethamine 25 mg</b> and <b>leucovorin 10 mg</b> orally daily</p>
<i>Toxoplasma gondii</i> encephalitis	<p>Toxoplasma IgG positive patients with CD4 count &lt; 100 cells/mm<sup>3</sup></p> <p>Seronegative patients receiving PCP prophylaxis not active against toxoplasmosis should have toxoplasma serology retested if CD4 count declines to &lt; 100 cells/mm<sup>3</sup></p> <p>Prophylaxis should be initiated if toxoplasmosis IgG seroconversion occurs</p>	<p><b>TMP-SMX</b>, one double strength orally daily</p>	<p><b>TMP-SMX</b> orally one double strength three times a week</p> <p>or</p> <p><b>TMP-SMX</b> orally one single strength daily</p> <p>or</p> <p><b>dapsone 50 mg</b> orally daily and <b>pyrimethamine 50 mg</b> orally weekly and <b>leucovorin 25 mg</b> orally weekly</p> <p>or</p> <p><b>dapsone 200 mg</b> and <b>pyrimethamine 75 mg</b> and <b>leucovorin 25 mg</b> orally weekly</p> <p>or</p> <p>Atovaquone 1,500 mg with/without <b>pyrimethamine 25 mg</b> and <b>leucovorin 10 mg</b> orally daily</p>
<i>Mycobacterium tuberculosis</i> infection (Treatment of latent TB infection or LTBI)	<p>No evidence of active TB disease and:</p> <ul style="list-style-type: none"> <li>▶ (+) diagnostic test for LTBI, and no prior history of treatment for active or latent TB</li> <li>▶ (-) diagnostic test for LTBI, but close contact with a person with infectious pulmonary TB</li> <li>▶ history of untreated or inadequately treated healed TB (i.e., old fibrotic lesions) regardless of diagnostic tests for LTBI</li> </ul>	<p><b>Isoniazid (INH) 300 mg</b> orally daily and <b>pyridoxine 50 mg</b> orally daily for nine months</p> <p>or</p> <p><b>INH 900 mg</b> orally twice a week and <b>pyridoxine 50 mg</b> orally daily for nine months</p> <p>For persons exposed to drug-resistant TB, selection of drugs after consultation with public health authorities is advised</p>	<p><b>Rifampin (RIF)</b> 600 mg orally daily for four months</p> <p>or</p> <p><b>Rifabutin (RFB)</b> (dose adjusted based on concomitant ART) for four months</p> <p><b>Rifapentine (RPT)</b> (weight-based, 900 mg max) PO weekly + <b>INH 15 mg/kg</b> weekly (900 mg max) + <b>pyridoxine 50 mg</b> weekly x 12 weeks – in patients receiving an EFV- or RAL-based ART regimen (32.1–49.9 kg 750 mg ≥50.0 kg 900 mg)</p> <p>*Multiple drug-drug interactions exist between RIF, RPT, and HIV medications</p> <p>*Consultation with HIV specialist or pharmacist strongly advised</p>
Disseminated <i>Mycobacterium avium</i> complex (MAC) disease	<p>CD4 count &lt; 50 cells/mm<sup>3</sup> after ruling out active MAC infection and not virally suppressed on ART.</p>	<p><b>Azithromycin 1,200 mg</b> orally once weekly</p> <p>or</p> <p><b>Clarithromycin 500 mg</b> orally twice a day</p> <p>or</p> <p><b>Azithromycin 600 mg</b> orally twice weekly</p>	<p><b>RFB 300 mg</b> orally daily (dosage adjustment based on drug-drug interactions with ART); rule out active TB before starting RFB</p>

In general, primary prophylaxis against the following conditions is not recommended:

- CMV
- Cryptococcal disease
- Histoplasmosis
- Candidiasis
- Coccidioidomycosis

**HIV expert consultation required prior to any prophylaxis initiation, dosage change, or discontinuation**

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Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults. 2018 Recommendations of the International Antiviral Society-USA Panel. JAMA. July, 24 2018. Available at <https://jamanetwork.com/journals/jama/fullarticle/2688574>

## SUMMARY

## DECISION SUPPORT

## PATIENT EDUCATION/SELF MANAGEMENT

**Recommended Immunizations for HIV Positive Adults**

Please note that vaccinations can cause a transient increase in HIV viral load within a few weeks after administration. This increase should resolve over time and does not usually indicate the development of antiretroviral drug resistance.

Immunization Name	Dosage	Comments and Warnings
<b>Recommended for All HIV Positive Adults</b>		
Hepatitis B Virus (HBV)	Three injections over a six month period	Recommended unless: 1. Already immune (Hepatitis BsAb positive), 2. Chronic active HBV (Hepatitis BsAg positive). Consider vaccination if isolated HBV cAb positive and HBV viral load negative. Check Hepatitis BsAb 1-2 months after completion of immunization series. Additional injections (regular dose or double dose) may be necessary if antibody levels are <10 after completion of an initial series.
Influenza	One injection	Should be given every year. Only injectable flu vaccine should be given to those who are HIV positive. The nasal spray vaccine (FluMist/LAIV) is contraindicated.
Meningococcal (MenACWY)	Two injections; two months apart	Recommended also for college students, military recruits, people who do not have a spleen, and people traveling to certain parts of the world. Revaccinate with 1 dose every 5 years.
Pneumococcal 13-valent conjugate (PCV13)	One injection	Give single dose of PCV13 one or more years after PPSV23. Give PPSV23 no sooner than 8 weeks after dose of PCV13.
Pneumococcal Polysaccharide (PPSV23)	One or two injections	Should be given soon after HIV diagnosis, unless vaccinated within the previous five years. If CD4 count is < 200 cells/mm <sup>3</sup> when the vaccine is given, immunization should be repeated when CD4 count is > 200 cells/mm <sup>3</sup> . Repeat once after five years. See above regarding timing of PPSV23 doses with PCV13.
Tetanus and Diphtheria Toxoid (Td)	One injection	Repeat vaccine every ten years.
Tetanus, Diphtheria, and Pertussis (Tdap)	One injection	Recommended for adults 64 years of age or younger and should be given in place of next Td booster one time only.
<b>Recommended for Some HIV Positive Adults</b>		
Hepatitis A Virus (HAV)	Two injections over a one year period	Recommended for all non-immune (Hepatitis A IgG negative) HIV infected patients.
Hepatitis A/ Hepatitis B Combined Vaccine (Twinrix)	Three injections over a six month period or four injections over a one year period	Can be used in those who require both HAV and HBV immunization.
Haemophilus influenzae Type B	One injection*	Can be used in those with functional or anatomical asplenia, sickle cell disease, undergoing elective splenectomy (administer 2 weeks prior to surgery). *Recipients of hematopoietic stem cell transplants should receive 3 doses 4 weeks apart 6-12 months after a successful transplant regardless of Hib vaccination history.
Human Papillomavirus (HPV)	Three injections over 24 weeks	Recommended for HIV infected women under 26 years of age and men under 21 years of age; also recommended for men who have sex with men patients under 26 years of age.
Measles, Mumps, and Rubella (MMR)	One or two injections	People born before 1957 do not need to receive this vaccine. HIV positive adults with CD4 counts < 200 cells/mm <sup>3</sup> or clinical symptoms of HIV should not get the MMR vaccine. Each component can be given separately if needed to achieve adequate antibody levels.
Varicella	Two injections; three months apart	People born before 1980 do not need to receive this vaccine. Recommended for all others unless there is evidence of immunity (IgG) or CD4 count is 200 cells/mm <sup>3</sup> or below. Not recommended to be given during pregnancy.
Zoster (Shingrix)	Two injections; 2-6 months apart	Recommended for adults ≥ 50 unless CD4 <200

\*Recommended Adult Immunization Schedule - United States, 2018. Centers for Disease Control Website.

Available at: <https://www.cdc.gov/vaccines/schedules/easy-to-read/adult.html>.

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## SUMMARY

## DECISION SUPPORT

## PATIENT EDUCATION/SELF MANAGEMENT

## Medications

(NOTE: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist)

<b>All Classes</b>	<ul style="list-style-type: none"> <li>Current recommended minimum effective combination consists of three antiretroviral medications from a minimum of two classes. <b>DO NOT PRESCRIBE MONOTHERAPY FOR HIV.</b> If any medication is discontinued due to toxicity or other reason, discontinue combination.</li> <li>Monitor for hepatotoxicity; use with caution in patients coinfecting with chronic hepatitis B or C or end stage liver disease.</li> <li>Monitor for renal dysfunction and consult with an HIV specialist for dosing in renal dysfunction.</li> <li>Multiple concerns regarding drug-drug interactions exist. (See page 12 for more information)</li> </ul>		
<b>Nucleoside/ Nucleotide Reverse Transcriptase Inhibitors (NRTI)</b>	Many NRTIs are associated with: <ul style="list-style-type: none"> <li>Hepatic steatosis</li> <li>Lactic acidosis (rare but potentially fatal): look for nausea, vomiting, abdominal pain, fatigue, weakness, dyspnea with an associated metabolic acidosis. Discontinue all potential offending agents immediately</li> <li>Lipodystrophy</li> </ul>		
Medication	Formulation	Side Effects	Special Notes
<b>ABACAVIR (ZIAGEN<sup>®</sup>, ABC) \$\$\$</b>	Tablet: <b>300mg</b> Solution: 20mg/ml	<ul style="list-style-type: none"> <li>Hypersensitivity reaction; potentially FATAL if rechallenged</li> </ul>	<ul style="list-style-type: none"> <li>Hypersensitivity associated with positive HLA-B5701: screen prior to initiation</li> <li>Hypersensitivity reaction: look for fever, rash, GI symptoms, cough, dyspnea, pharyngitis</li> <li>Adjust dose for hepatic dysfunction</li> <li>Avoid in treatment naïve patient if HIV viral load &gt; 100,000 copies/ml</li> </ul>
<b>DIDANOSINE (VIDEX<sup>®</sup>, DDI) \$\$\$</b>	Delayed release capsule: 200mg, <b>250mg</b> <b>400mg</b> Powder for solution: 2gm, 4gm	<ul style="list-style-type: none"> <li>Peripheral neuropathy</li> <li>Pancreatitis</li> <li>Lactic acidosis – See above</li> </ul>	<ul style="list-style-type: none"> <li>Weight based dosing</li> <li>Adjust dose for renal dysfunction</li> <li>Adjust dose if given with tenofovir</li> <li>Avoid in combination with stavudine</li> <li>Contraindicated with ribavirin</li> <li>Prolonged exposure associated with noncirrhotic portal hypertension with esophageal varices</li> </ul>
<b>EMTRICITABINE (EMTRIVA<sup>®</sup>, FTC) \$\$\$\$</b>	Capsule: <b>200mg</b>	<ul style="list-style-type: none"> <li>Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfecting with chronic hepatitis B</li> </ul>	<ul style="list-style-type: none"> <li>Active against chronic hepatitis B</li> <li>Dose adjustment for renal dysfunction</li> <li>Contraindicated for use with lamivudine</li> </ul>
<b>LAMIVUDINE (EPIVIR<sup>®</sup>, 3TC) \$\$\$</b>	Tablet: 100mg, <b>150mg</b> , <b>300mg</b> Solution: 10mg/ml	<ul style="list-style-type: none"> <li>Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfecting with chronic hepatitis B</li> </ul>	<ul style="list-style-type: none"> <li>Active against chronic hepatitis B</li> <li>Adjust dose for renal dysfunction</li> <li>Contraindicated with emtricitabine</li> </ul>
<b>STAVUDINE (ZERIT<sup>®</sup>, D4T) \$\$\$</b>	Capsule: 15mg, 20mg 30mg, 40mg	<ul style="list-style-type: none"> <li>Peripheral neuropathy</li> <li>Pancreatitis</li> <li>Lactic acidosis – See above</li> <li>Hyperlipidemia</li> </ul>	<ul style="list-style-type: none"> <li>Weight based dosing</li> <li>Dose adjustment for renal dysfunction</li> <li>Avoid in combination with didanosine</li> <li>Contraindicated with zidovudine</li> </ul>
<b>TENOFOVIR (VIREAD<sup>®</sup>, TDF) \$\$\$\$</b>	Tablet: 150mg, 200mg, 250mg, <b>300mg</b> Powder: 40mg/gm	<ul style="list-style-type: none"> <li>Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients co-infected with chronic hepatitis B</li> <li>Renal impairment</li> <li>Fanconi's Syndrome</li> <li>Decreased bone mineral density</li> </ul>	<ul style="list-style-type: none"> <li>Active against chronic hepatitis B</li> <li>Adjust dose for renal dysfunction</li> <li>Adjust dose if given in combination with didanosine and/or atazanavir</li> </ul>
<b>ZIDOVUDINE (RETROVIR<sup>®</sup>, AZT) \$\$\$</b>	Tablet: <b>300 mg</b> Syrup: 50mg/ml Capsule: <b>100mg</b>	<ul style="list-style-type: none"> <li>Bone marrow suppression</li> <li>Anemia (usually macrocytic)</li> <li>Myopathy</li> <li>Nausea</li> </ul>	<ul style="list-style-type: none"> <li>Contraindicated for use with stavudine</li> <li>Caution in use with other agents that cause bone marrow suppression</li> <li>Adjust dose for renal dysfunction</li> </ul>

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**Bold = Formulary**



## SUMMARY

## DECISION SUPPORT

## PATIENT EDUCATION/SELF MANAGEMENT

## Medications

(NOTE: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist)

<b>Non-nucleoside Reverse Transcriptase Inhibitors (NNRTI)</b>	<p>Many NNRTIs are associated with:</p> <ul style="list-style-type: none"> <li>• Rash and potential Stevens Johnson Syndrome: monitor for rash during initiation of these medications and discontinue if severe or accompanied by mucous membrane involvement. Less severe rash may be treated with antihistamines and followed closely</li> <li>• Hyperlipidemia</li> <li>• Cross class resistance: if history of prior NNRTI use and poor virologic response, consult HIV specialist prior to initiation of second NNRTI</li> <li>• Long half life: consult HIV specialist if possible prior to discontinuation to avoid the emergence of resistant mutations</li> <li>• Multiple concerns regarding drug-drug interactions. (See page 12 for more information)</li> </ul>
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Medication	Formulation	Side Effects	Special Notes
<b>EFAVIRENZ</b> (SUSTIVA <sup>®</sup> , EFV) \$\$\$\$\$	Tablet: <b>600mg</b> Capsule: 50mg 200mg	<ul style="list-style-type: none"> <li>• CNS side effects: dizziness, bizarre dreams</li> <li>• False positive with certain types of cannabinoid testing</li> </ul>	<ul style="list-style-type: none"> <li>• Potentially teratogenic especially in the first trimester: obtain pregnancy test prior to starting in women of child bearing potential.</li> <li>• Avoid taking with a high fat meal.</li> <li>• Immediate evaluation is recommended for psychiatric symptoms such as severe depression or suicidal ideation.</li> </ul>
<b>ETRAVIRINE</b> (INTELENCE <sup>®</sup> , ETR) \$\$\$\$\$	Tablet: 25mg 100mg, 200mg	<ul style="list-style-type: none"> <li>• Hepatotoxicity</li> <li>• Hypersensitivity reaction</li> </ul>	
<b>NEVIRAPINE</b> (VIRAMUNE <sup>®</sup> , NVP) \$\$\$	Tablet: <b>200mg</b> Solution: 50mg/5ml XR tablet: 100mg 400mg	<ul style="list-style-type: none"> <li>• Hepatotoxicity</li> <li>• Monitor LFTs baseline, two weeks after initiation, and monthly for the first 18 weeks of therapy; discontinue if clinical hepatitis or severe rash occurs and do not rechallenge.</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid starting nevirapine in women with CD4 &gt; 250 cells/mm<sup>3</sup> or men with CD4 &gt; 400 cells/mm<sup>3</sup>. Once patients on NVP reach a CD4 cell count higher than these cut-offs, they are not required to discontinue unless otherwise indicated.</li> <li>• Dose escalation with initiation: 200mg daily for two weeks, then 200mg, one twice daily or two once daily.</li> </ul>
<b>RILPIVIRINE</b> (EDURANT <sup>®</sup> , RPV) \$\$\$\$\$	Tablet: <b>25mg</b>	<ul style="list-style-type: none"> <li>• Depression</li> <li>• Insomnia</li> <li>• Headache</li> <li>• Rash</li> </ul>	<ul style="list-style-type: none"> <li>• Requires an acid environment for optimal absorption. Contraindicated for use with proton pump inhibitors; specific dosing recommendations for use with other acid lowering agents. Consult an HIV specialist or package insert for specifics</li> <li>• Use with caution in patients with baseline HIV viral load &gt;100,000 copies/ml</li> </ul>

**Integrase Strand Transfer Inhibitor (INSTI)**

<b>DOLUTEGRAVIR</b> (TIVICAY, DTG) \$\$\$\$\$	Tablet: 10mg 25mg <b>50mg</b>	<ul style="list-style-type: none"> <li>• Hypersensitivity reaction: rash, constitutional findings</li> <li>• Diarrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Not recommended for Child Pugh Class C patients.</li> <li>• Not recommended for women of child-bearing potential or not using effective contraception due to the risk of neural tube defects if taken near the time of conception.</li> <li>• If pregnant and &lt; 8 weeks from LMP, switch to an alternative option (See Page 5).</li> <li>• A negative pregnancy test is recommended prior to initiating in women.</li> </ul>
<b>RALTEGRAVIR</b> (ISENTRRESS <sup>®</sup> , RAL) \$\$\$\$\$	Tablet: <b>400mg,</b> 600mg Chew: 25mg 100mg Suspension: 100 mg/ml	<ul style="list-style-type: none"> <li>• Asthenia</li> <li>• Nausea</li> <li>• Diarrhea</li> <li>• Headache</li> <li>• CPK elevation</li> </ul>	

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<b>SUMMARY</b>	<b>DECISION SUPPORT</b>	<b>PATIENT EDUCATION/SELF MANAGEMENT</b>
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**Medications**

(NOTE: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist)

<b>Protease Inhibitor (PI)</b>	Many PIs are associated with: • Hyperlipidemia • Hyperglycemia • Lipodystrophy/fat redistribution • Elevated transaminases	• GI intolerance: nausea, vomiting, diarrhea • Hepatotoxicity especially in patients with underlying liver disease or coinfection with hepatitis B or C	• Increased bleeding in hemophiliacs • Most PIs are prescribed in combination with ritonavir in order to achieve more optimal drug levels • Multiple concerns regarding drug-drug interactions. See page 12 for more information)
<b>Medication</b>	<b>Formulation</b>	<b>Side Effects</b>	<b>Special Notes</b>
<b>ATAZANAVIR (REYATAZ®, ATV) \$\$\$\$\$</b>	Capsule: 100mg 150mg <b>200mg</b> <b>300mg</b> Powder for oral suspension: 50mg	• Indirect hyperbilirubinemia: jaundice, scleral icterus rarely a cause for discontinuation • PR prolongation • Nephrolithiasis, cholelithiasis	• Requires an acidic environment for optimal absorption; specific dosing recommendations for use with proton pump inhibitors, H2 blockers, antacids: Consult an HIV specialist or package insert for specifics • Adjust dose for hepatic dysfunction • Adjust dose for renal dysfunction • Adjust dose if given with tenofovir
<b>DARUNAVIR (PREZISTA®, DRV) \$\$\$\$\$</b>	Tablet: 75mg 150mg <b>600mg</b> <b>800mg</b> <b>Suspension: 100mg/ml</b>	• Rash; caution if sulfonamide allergy, Stevens Johnson Syndrome has been reported • Headache	• Should always be used with ritonavir or cobicistat
<b>FOSAMPRENAVIR (LEXIVA®, LEX) \$\$\$\$\$</b>	Tablet: <b>700mg</b> Suspension: 50mg/ml	• Rash; caution if sulfonamide allergy • Nephrolithiasis (rare)	• Dose adjustment for hepatic dysfunction
<b>INDINAVIR (CRIXIVAN®, IND) \$\$\$\$\$</b>	Capsule: 200mg 400mg	• Headache • Asthenia; Metallic taste • Alopecia • Hemolytic anemia • Thrombocytopenia • Indirect hyperbilirubinemia • Nephrolithiasis	• Dose adjustment for hepatic dysfunction
<b>LOPINAVIR/RITONAVIR (KALETRA®, LPV) \$\$\$\$\$</b>	Tablet: <b>200mg - 50mg</b> 100mg - 25mg Solution: 80mg - 20mg/ml	• Asthenia • PR and QT prolongation • GI Intolerance: nausea, vomiting, diarrhea	• Co-formulated with ritonavir • Avoid once daily dosing in patients on HD
<b>NELFINAVIR (VIRACEPT®, NLF) \$\$\$\$\$</b>	Tablet: 250 mg <b>625 mg</b>	• Diarrhea	• Do not use with ritonavir
<b>SAQUINAVIR (INVIRASE®, SQV) \$\$\$\$\$</b>	Tablet: 500mg Capsule: 200mg	• Headache • PR and QT prolongation	• Requires co-administration of ritonavir • Pretreatment EKG is recommended
<b>TIPRANAVIR (APTIVUS®, TPV) \$\$\$\$\$</b>	Capsule: 250mg Solution: 100 mg/ml	• Rash; caution if sulfonamide allergy • Potentially fatal hepatotoxicity • Intracranial hemorrhage	• Requires co-administration of ritonavir
<b>Pharmacologic Boosters</b>			
<b>RITONAVIR (NORVIR®, RTV) \$\$\$\$\$</b>	Tablet: <b>100mg</b> Capsule: 100mg Solution: 80mg/ml	• Paresthesia – circumoral and extremities • Asthenia; taste perversion	• Full dose ritonavir poorly tolerated • Refrigeration required with capsule.
<b>COBICISTAT (TYBOST) \$\$\$\$\$</b>	Tablet: 150mg	• Jaundice (studied with atazanavir) • Nausea	• Avoid if CrCl<70 ml/min and in combination with tenofovir.
<b>Fusion Inhibitor</b>			
<b>ENFUVRTIDE (FUZEON®, T20) \$\$\$\$\$</b>	For injection: 90mg/vial	• Injection site reactions • Increased bacterial pneumonia • Hypersensitivity reaction	• Subcutaneous injection twice daily
<b>Entry Inhibitor</b>			
<b>IBALIZUMAB (TROGARZO®) \$\$\$\$\$</b>	For IV infusion: 200mg/vial	• Diarrhea • Dizziness • Nausea • Rash	• Monoclonal antibody for extensive multidrug resistant HIV-1 with limited alternatives • Subcutaneous injection or IV infusion every 2 weeks • No data in pregnancy

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Trogarzo Package Insert. Theratechnologies Inc. March 2018. Available at: [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2018/761065lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/761065lbl.pdf)

Symtuza Package Insert. Janssen Therapeutics. July 2018. Available at: <http://www.janssenlabels.com/package-insert/product-monograph/prescribing-information/SYMTUZA-pi.pdf>

<b>SUMMARY</b>	<b>DECISION SUPPORT</b>	<b>PATIENT EDUCATION/SELF MANAGEMENT</b>
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## Medications

(NOTE: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist)

<b>CCR5 Inhibitor</b>	<ul style="list-style-type: none"> <li>• Only active against CCR5 tropic strains of HIV: must obtain tropism assay prior to initiation.</li> <li>• Multiple concerns regarding drug-drug interactions exist. (See page 12 for more information)</li> </ul>		
Medication	Formulation	Side Effects	Special Notes
MARAVIROC (SELZENTRY <sup>®</sup> , MVC) \$\$\$\$\$	Tablet: 25mg/75mg/ 150mg/300mg Solution: 20mg/ml	<ul style="list-style-type: none"> <li>• Abdominal pain</li> <li>• Cough</li> <li>• Dizziness</li> <li>• Rash</li> <li>• Hepatotoxicity</li> <li>• Orthostatic hypotension</li> </ul>	<ul style="list-style-type: none"> <li>• Many drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation</li> <li>• Adjust dose for renal dysfunction</li> <li>• Tropism testing required prior to starting</li> </ul>
<b>Co-formulations of medication classes listed above</b>			
BICTEGRAVIR/ EMTRICITABINE/TENOFOVIR ALAFENAMIDE (BIKTARVY <sup>®</sup> ) \$\$\$\$\$	Tablet: 50mg/ 200mg/ 25mg	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Nausea</li> <li>• Diarrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Recommended for initial therapy or switch therapy (please consult with an HIV specialist).</li> <li>• Not recommended in patients with a creatinine clearance of &lt;30 mL/min, those with severe liver impairment, or pregnant women.</li> <li>• Significant drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation.</li> </ul>
EFAVIRENZ/EMTRICITABINE/ TENOFOVIR DISOPROXIL FUMARATE (ATRIPLA <sup>®</sup> ) \$\$\$\$\$	Tablet: 600mg/ 200mg/300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
EMTRICITABINE/TENOFOVIR ALAFENAMIDE (DESCOVY <sup>®</sup> ) \$\$\$\$\$	Tablet: 200mg/25mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
ABACAVIR/LAMIVUDINE (EPZICOM <sup>®</sup> , EPZ) \$\$\$\$\$	Tablet: 600mg/300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
ELVITEGRAVIR/COBICISTAT/ EMTRICITABINE/TENOFOVIR ALAFENAMIDE (GENVOYA <sup>®</sup> ) \$\$\$\$\$	Tablet: 150mg/50mg/ 200mg/10mg	See information regarding each individual component, listed above	Many drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation
EMTRICITABINE/RILPIVIRINE/ TENOFOVIR ALAFENAMIDE (ODEFSEY <sup>®</sup> ) \$\$\$\$\$	Tablet: 200mg/25mg/ 25mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
DOLUTEGRAVIR/ABACAVIR/ LAMIVUDINE (TRIUMEQ <sup>®</sup> ) \$\$\$\$\$	Tablet: 50mg/600mg/ 300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
COBICISTAT/ELVITEGRAVIR/ EMTRICITABINE/TENOFOVIR DISOPROXIL FUMARATE (STRIBILD <sup>®</sup> ) \$\$\$\$\$	Tablet: 150mg/150mg/ 200mg/300mg	See information regarding each individual component, listed above	Many drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation.
LAMIVUDINE/ZIDOVUDINE (COMBIVIR <sup>®</sup> , CMB) \$\$\$\$\$	Tablet: 150mg/300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
EMTRICITABINE/RILPIVIRINE/ TENOFOVIR DISOPROXIL FUMARATE (COMPLERA <sup>®</sup> ) \$\$\$\$\$	Tablet: 200mg/25mg/ 300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
ATAZANAVIR/COBICISTAT (EVOTAZ <sup>®</sup> ) \$\$\$\$\$	TABLET: 300mg/150mg	See information regarding each individual component, listed above	Many drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation.
DOLULEGRAVIR/RILPIVIRINE (JULUCA <sup>®</sup> ) \$\$\$\$\$	Tablet: 50mg/25mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
DARUNAVIR/COBICISTAT (PREZCOBIX <sup>®</sup> ) \$\$\$\$\$	TABLET: 800mg/50mg	See information regarding each individual component, listed above	Many drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation.
ABACAVIR/LAMIVUDINE/ ZIDOVUDINE (TRIZIVIR <sup>®</sup> , TZV) \$\$\$\$\$	Tablet: 300mg/ 150mg/300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
TENOFOVIR DISOPROXIL FUMARATE/EMTRICITABINE (TRUVADA <sup>®</sup> , TVD) \$\$\$\$\$	Tablet: 200mg/300mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above
DARUNAVIR/COBICISTAT/ EMTRICITABINE/TENOFOVIR ALAFENAMIDE (SYMTOZA <sup>®</sup> ) \$\$\$\$\$	Tablet: 800mg/150mg/ 200mg/10mg	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Nausea</li> <li>• Diarrhea</li> <li>• Abdominal Discomfort</li> <li>• Rash</li> </ul>	<ul style="list-style-type: none"> <li>• Recommended for initial therapy or switch therapy (please consult with an HIV specialist).</li> <li>• Not recommended in patients with a creatinine clearance of &lt;30 mL/min, those with severe liver impairment, or pregnant women.</li> <li>• Significant drug-drug interactions; consult an HIV specialist, pharmacist or <a href="https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf">https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf</a> prior to initiation.</li> </ul>

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<b>SUMMARY</b>	<b>DECISION SUPPORT</b>	<b>PATIENT EDUCATION/SELF MANAGEMENT</b>
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## Medications

(NOTE: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist)

PRIMARY OPPORTUNISTIC INFECTION PROPHYLACTIC MEDICATIONS			
CONSULT AN HIV SPECIALIST OR <a href="mailto:CPHCSHIVQuestions@cdcr.ca.gov">CPHCSHIVQuestions@cdcr.ca.gov</a> PRIOR TO DISCONTINUING PROPHYLAXIS			
Medication	Formulation	Side Effects	Special Notes
ATOVAQUONE (MEPRON <sup>®</sup> ) \$\$\$\$\$	Suspension: 750 mg / 5 ml	<ul style="list-style-type: none"> <li>Rash</li> <li>GI intolerance</li> </ul>	
AZITHROMYCIN (ZITHROMAX <sup>®</sup> ) \$\$	Tablet: <b>250 mg</b> <b>500 mg</b> <b>600 mg</b>	<ul style="list-style-type: none"> <li>Rash</li> <li>Diarrhea</li> <li>Nausea</li> <li>Abdominal pain</li> </ul>	
CLARITHROMYCIN (BIAXIN <sup>®</sup> ) \$	Tablet: <b>250 mg</b> <b>500 mg</b>	<ul style="list-style-type: none"> <li>Rash</li> <li>Diarrhea</li> <li>Nausea</li> <li>Abdominal pain</li> <li>Pseudomembranous colitis</li> </ul>	
DAPSONE \$	Tablet: 25 mg <b>100 mg</b>	<ul style="list-style-type: none"> <li>Rash, hypersensitivity reaction</li> <li>Hematologic abnormalities</li> <li>Hemolytic anemia (G6PD related)</li> <li>Neuropathy</li> </ul>	<ul style="list-style-type: none"> <li>Contraindicated in G6PD deficiency</li> </ul>
PENTAMIDINE (NEBUPENT <sup>®</sup> ) \$\$\$\$\$	Solution: <b>300 mg</b>	<ul style="list-style-type: none"> <li>Rash</li> <li>Renal impairment</li> <li>Bronchospasm</li> <li>Arrhythmia</li> <li>Hematologic abnormalities</li> </ul>	<ul style="list-style-type: none"> <li>Given via nebulizer for prophylaxis</li> <li>Dose adjustment for renal dysfunction</li> </ul>
PYRIMETHAMINE (DARAPRIM <sup>®</sup> ) \$\$\$\$\$	Tablet: <b>25 mg</b>	<ul style="list-style-type: none"> <li>Neutropenia</li> <li>Thrombocytopenia</li> <li>Megaloblastic anemia</li> <li>Rash</li> </ul>	<ul style="list-style-type: none"> <li>Contraindicated in folate deficiency and hypersensitivity to pyrimethamine</li> <li>Use with caution if G6PD deficient, renal dysfunction, hepatic dysfunction or history of seizure disorders</li> </ul>
TRIMETHOPRIM-SULFAMETHOXAZOLE (TMP-SMX SS OR DS, BACTRIM SS <sup>®</sup> OR DS <sup>®</sup> ) \$	Tablet: <b>160 mg/ 800 mg</b>	<ul style="list-style-type: none"> <li>Rash, Stevens Johnson Syndrome</li> <li>Hematologic abnormalities</li> </ul>	<ul style="list-style-type: none"> <li>Dose adjustment for renal dysfunction</li> <li>Use with caution if G6PD deficient (rare)</li> </ul>

### Drug-Drug Interactions

Multiple drug-drug interactions exist between many antiretroviral medications and other medication classes, including but not limited to, certain antimicrobials, analgesics, antiarrhythmics, oral contraceptives, anxiolytics, lipid lowering agents, acid lowering agents, herbal preparations, corticosteroids, and anticonvulsants.

Prior to adding to or adjusting the medication profile of an HIV patient, consider consulting:

- ▶ **An HIV specialist or pharmacist**
- ▶ <http://www.hiv-druginteractions.org/Interactions.aspx>
- ▶ <https://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

or contact the CCHCS HIV warmline at [CPHCSHIVQuestions@cdcr.ca.gov](mailto:CPHCSHIVQuestions@cdcr.ca.gov)

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. May 30, 2018. Available at <https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf>

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**HUMAN IMMUNODEFICIENCY VIRUS (HIV)****WHAT YOU SHOULD KNOW ABOUT HIV:**

- You can have HIV for years and not feel sick.
- There is no cure or vaccine for HIV, but treatment can help you live longer and prevent other painful and serious problems.
- AIDS (Acquired Immunodeficiency Syndrome) often occurs in patients with untreated HIV.
- If HIV is not treated, it can slowly destroy your immune system. You may get other serious and maybe deadly infections.
- Early treatment can save your life.

**KNOW YOUR STATUS**

Ask your health care provider for an HIV test if you have never been tested. HIV may take up to six months to show up in your blood.

**PROTECT YOURSELF**

HIV can be spread through unprotected sexual contact or sharing needles with someone who is HIV infected. You should avoid these risky behaviors.

**KNOW HOW HIV IS NOT SPREAD**

HIV is not spread by dry kissing, shaking hands, hugging, sharing utensils or food, or sharing toilets.

**IF YOU THINK YOU HAVE BEEN EXPOSED, SEE YOUR HEALTH CARE PROVIDER.**

Especially if you have any of the following:

- ▶ Diarrhea
- ▶ Swollen lymph glands
- ▶ Oral thrush (white patches in your mouth)
- ▶ Vaginal yeast infections
- ▶ Flu-like symptoms
- ▶ Night sweats
- ▶ Fevers
- ▶ Weight loss

**IF YOU ARE ON HIV MEDICINES, BE SURE TO TAKE THEM EVERY DAY.**

Missed doses may cause your medicine to stop working to control your HIV. Tell your health care provider if you are not able to take your HIV medicines due to bad side effects, or other reasons.



## VIRUS DE INMUNODEFICIENCIA HUMANA (VIH)



### LO QUE DEBE SABER SOBRE EL VIH:

- Se puede tener VIH durante años sin sentir ningún malestar.
- No existe cura ni vacuna contra el VIH, pero el tratamiento puede ayudarle a vivir más y prevenir otras complicaciones dolorosas y graves.
- El SIDA (Síndrome de Inmunodeficiencia Adquirida) ocurre principalmente en pacientes cuyo VIH no ha recibido tratamiento.
- Si el VIH no se trata, puede destruir lentamente el sistema inmunológico; por lo que se pueden contraer otras infecciones graves e incluso mortales.
- Recibir tratamiento a tiempo puede salvarle la vida.

### CONOZCA SU SITUACIÓN

Solicite a su proveedor de atención médica una prueba para detectar el VIH si nunca se ha realizado este examen. El VIH puede demorar hasta seis meses para ser detectado en la sangre.

### PROTÉJASE A SÍ MISMO

El VIH se puede contagiar a través del contacto sexual sin protección o por intercambio de jeringas con una persona portadora de VIH. Estos comportamientos arriesgados se deben evitar.

### SEPA CÓMO NO SE CONTAGIA EL VIH

El VIH no se contagia a través de un beso, apretón de manos, abrazos, compartir utensilios o alimentos, ni por compartir el baño.

### SI CREE QUE HA SIDO EXPUESTO, ACUDA A SU PROVEEDOR DE CUIDADOS DE SALUD

Especialmente si presenta alguno de los siguientes:

- ▶ Diarrea
- ▶ Inflamación en las glándulas linfáticas
- ▶ Candidiasis bucal (parches blancos dentro de la boca)
- ▶ Infecciones vaginales por hongos
- ▶ Síntomas parecidos a una gripe
- ▶ Sudoración nocturna
- ▶ Fiebre
- ▶ Pérdida de peso

### SI USTED SE ENCUENTRA BAJO TRATAMIENTO CONTRA EL VIH, ASEGÚRESE DE TOMAR SUS MEDICINAS TODOS LOS DÍAS.

Saltar alguna dosis podría ocasionar que la medicina pierda la capacidad de controlar el VIH. Hable con su proveedor de cuidados de salud si no puede tomar sus medicinas contra el VIH debido a efectos secundarios perjudiciales o por otra razón.