

SUMMARY	DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT
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GOALS

- ✓ OFFER SCREENING
- ✓ IDENTIFY ACUTE SEROCONVERSION
- ✓ IDENTIFY CHRONIC INFECTION
- ✓ OFFER EVALUATION WITH AN HIV SPECIALIST IF POSITIVE

ALERTS – ALL HIV INFECTED PATIENTS MUST BE MANAGED IN CONJUNCTION WITH AN HIV SPECIALIST

PROMPT EVALUATION REQUIRED FOR THESE HIV INFECTED PATIENTS
<ul style="list-style-type: none"> ▶ Newly diagnosed HIV infection. ▶ Acute seroconversion or suspected new HIV infection: look for fever, lymphadenopathy, pharyngitis, rash, myalgia, diarrhea and/or headache present for six to eight weeks; consider HIV viral load testing in addition to antibody testing in suspected acute seroconversion. Note that HIV antibody testing might be negative early in the infection. ▶ Patients on treatment but only receiving one or two antiretroviral medications (note that some coformulations exist) ▶ Patients on treatment in whom viral load is detectable after extended period of treatment. ▶ New onset fevers, unintentional weight loss > 10%, fatigue, dyspnea, skin lesions, anemia (regardless of CD4). ▶ CD4 < 200 cells/mm³ and not on Pneumocystis Jiroveci (PCP) prophylaxis OR CD4 < 50 cells/mm³ and not on Mycobacterium Avium Complex (MAC) prophylaxis. ▶ CD4 < 200 cells/mm³ with dyspnea, cough, fevers OR CD4 < 100 cells/mm³ with headache, blurry or lost vision.

DIAGNOSTIC CRITERIA/EVALUATION

COMPLETE HISTORY AND PHYSICAL INCLUDING: date of diagnosis, transmission risk factor, lowest (nadir) CD4 count, history of opportunistic infections and other AIDS related conditions, risk reduction strategies, medications, smoking/substance use history, vaccination history, and thorough system review.

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<ul style="list-style-type: none"> • HIV antibody (ELISA/Western blot) if not in eUHR • CD4 cell count • HIV viral load, quantitative • HIV genotype, if newly diagnosed and no genotype report in eUHR • CBC with differential • Complete metabolic panel • Fasting lipid panel 	<ul style="list-style-type: none"> • Rapid Plasma Reagin (RPR) • Urinalysis • Urine gonorrhea/chlamydia (NAAT) • Toxoplasmosis IgG • HLA-B*5701 if not in eUHR • PPD if not done in past twelve months and no history of positive PPD • PA and lateral CXR if not in eUHR • Hepatitis A antibody, hepatitis B sAg, cAb, sAb; hepatitis C Ab 																					
ROUTINE LABS QUARTERLY	MONTHLY LABS: WHEN STARTING/CHANGING HIV MEDICATIONS AND AS INDICATED	ROUTINE LABS ANNUALLY AND AS INDICATED																				
<ul style="list-style-type: none"> • CD4 cell count • HIV viral load, quantitative • CBC with differential • Complete metabolic panel 	<ul style="list-style-type: none"> • CD4 cell count • HIV viral load, quantitative • CBC with differential • Complete metabolic panel 	<ul style="list-style-type: none"> • RPR • Hep C Ab if previously negative • Urine gonorrhea/chlamydia (NAAT) • Fasting lipids 																				

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

NOTE: DO NOT INITIATE, CHANGE, OR DISCONTINUE HIV MEDICATIONS WITHOUT FIRST CONSULTING AN HIV SPECIALIST

1. When to start:
 - a. Antiretroviral therapy (ART) is recommended for all HIV infected individuals regardless of CD4 counts. Antiretroviral therapy should be initiated **ONLY** in consultation with an HIV specialist. Patients starting ART should be willing to commit to treatment and should 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.
 - b. More urgent initiation of ART may be indicated in the following conditions:
 - i. Acute opportunistic infections (OI): HIV specialty consultation required – delay of ART may be warranted depending on type of OI.
 - ii. History of, or current, AIDS defining conditions (CD4 < 200 or AIDS indicator condition) (See page 5)
 - iii. Rapidly declining CD4 count (> 100 cells/mm³ per year) or higher HIV viral loads (> 100,000 copies/ml)
 - iv. Pregnancy: HIV specialty consultation required
 - v. Chronic active hepatitis B coinfection requiring treatment
 - vi. HCV/HIV coinfection
 - vii. HIV associated nephropathy (HIVAN)
2. What to use: monotherapy or dual therapy is **NEVER** acceptable; at a minimum, three agents must be used in combination
 - Efavirenz / Tenofovir / Emtricitabine (Atripla[®])
 - Atazanavir (Reyataz[®]) boosted with Ritonavir (Norvir[®]) and Tenofovir / Emtricitabine (Truvada[®])
 - Darunavir (Prezista[®]) (once daily) boosted with Ritonavir (Norvir[®]) (once daily) and Tenofovir / Emtricitabine (Truvada[®])
 - Raltegravir (Isentress[®]) and Tenofovir / Emtricitabine (Truvada[®])

See medication section for precautions and side effects. Pay particular attention to specific contraindications and interactions between HIV medications and the patient's existing medications.

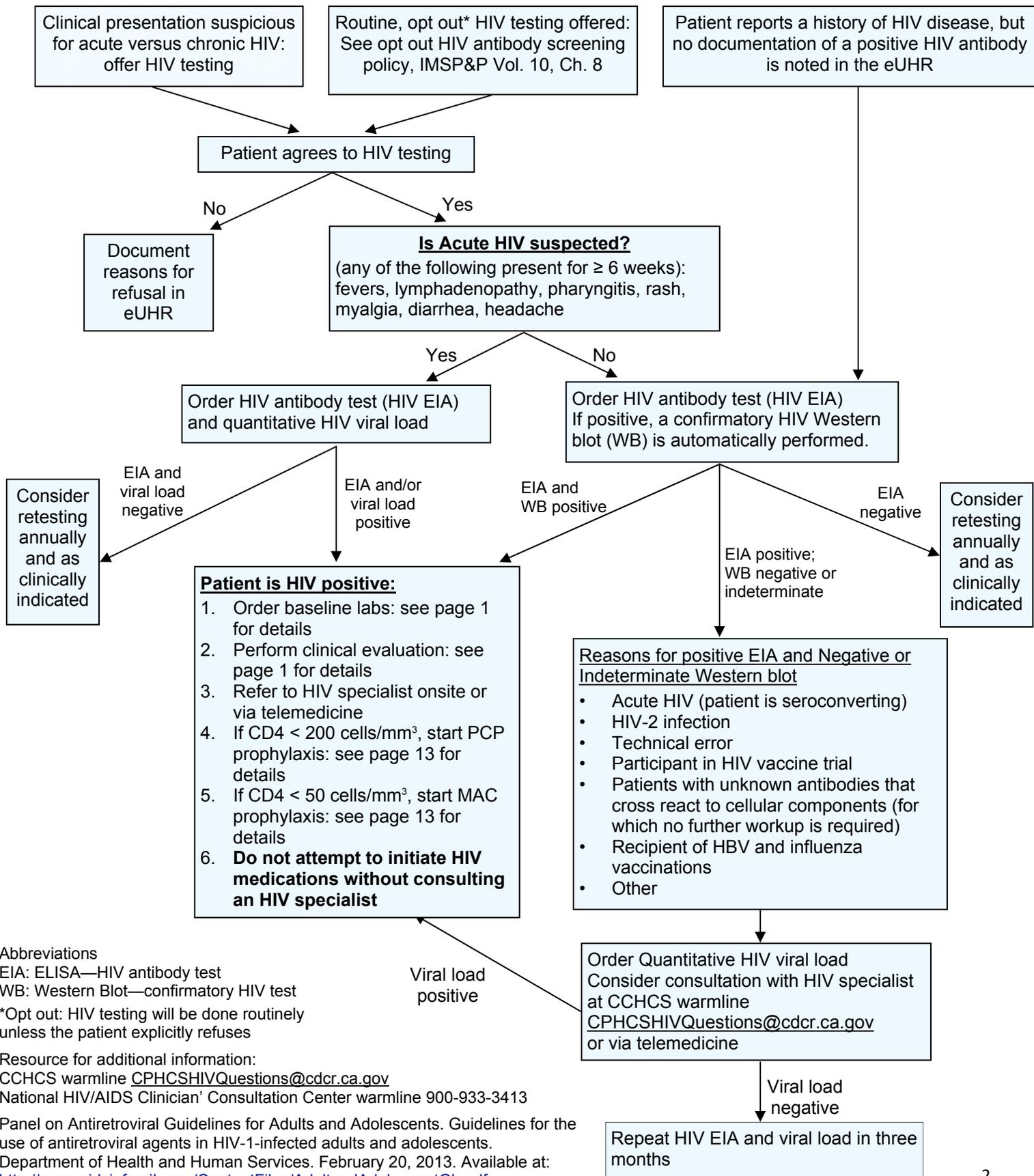
MONITORING

- Patients starting antiretroviral medications should have follow up within one to two weeks of starting treatment to assess for toxicity, tolerability, and adherence. Monthly laboratory assessment and clinical follow up are generally required thereafter until the patient achieves an undetectable viral load.
- Well controlled patients (defined as HIV viral load undetectable and CD4 cell count > 200 cells/mm³) should have quarterly laboratory assessment and clinical follow up.

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.

SUMMARY **DECISION SUPPORT** **PATIENT EDUCATION/SELF MANAGEMENT**

HIV TESTING



Abbreviations

EIA: ELISA—HIV antibody test
 WB: Western Blot—confirmatory HIV test

*Opt out: HIV testing will be done routinely unless the patient explicitly refuses

Resource for additional information:

CCHCS warmline CPHCSHIVQuestions@cdcr.ca.gov
 National HIV/AIDS Clinician' Consultation Center warmline 900-933-3413

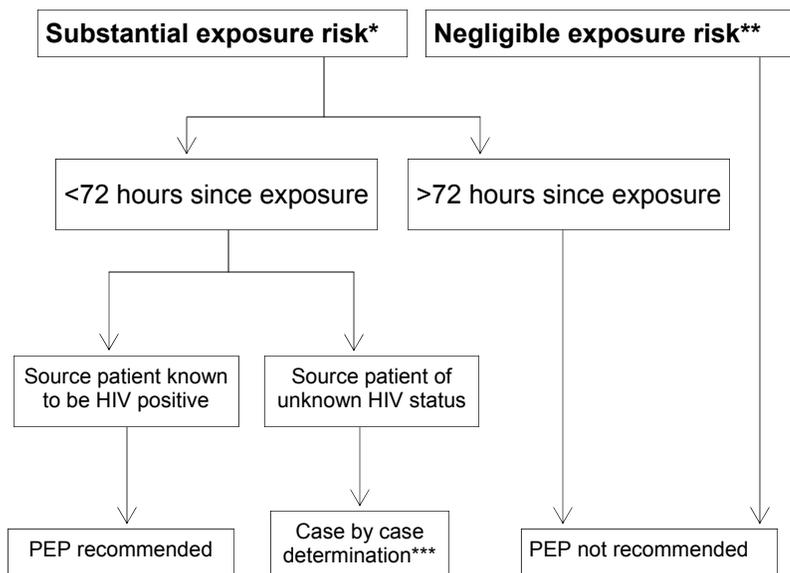
Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. February 20, 2013. Available at: <http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

SUMMARY **DECISION SUPPORT** **PATIENT EDUCATION/SELF MANAGEMENT**

PATIENT/INMATE HIV POST EXPOSURE PROPHYLAXIS (PEP)
 For employee occupational exposures, contact your supervisor
NOTE: Protocols for occupational and non-occupational inmate exposures are the same.

Diagnostic Criteria/Evaluation

Evaluation and treatment of possible HIV exposures



***Substantial exposure risk**

Exposure of the vagina, rectum, eye, mouth or other mucous membrane, nonintact skin, or percutaneous contact **with** blood, semen, vaginal secretions, rectal secretions, breast milk, or any body fluid that is visibly contaminated with blood **when the source is known to be HIV infected.**

Note: In the event of a **human bite**, both source and exposed persons are at substantial risk if blood is involved and one party is HIV infected. If this occurs, consider offering PEP to the HIV negative person, whether the source or the exposed patient. Determine need for tetanus vaccine and antibiotics. A bite involving non-bloody saliva is not considered a substantial risk for HIV transmission from biter to victim.

****Negligible exposure risk**

Exposure of the vagina, rectum, eye, mouth or other mucous membrane, intact or nonintact skin, or percutaneous contact **with** urine, nasal secretions, saliva, sweat, or tears if not visibly contaminated with blood **regardless of the known or suspected HIV status of the source.**

***When the HIV status of the source is unknown, PEP can be started pending HIV testing, and stopped if the source's HIV test is negative. Consider CCHCS warmline consultation for unusual exposure cases: CPHCSHIVQuestions@cdcr.ca.gov

Management of the exposed patient

- ◆ Obtain baseline labs (see page 4)
- ◆ Consider prophylaxis for other STDs, testing for hepatitis and vaccinations if applicable (HBV if non-immune, tetanus if appropriate)
- ◆ Advise regarding signs/symptoms of acute HIV seroconversion (see table below)

Signs/symptoms of Acute HIV Seroconversion (usually present > 6 weeks)	%
Fever	96
Lymphadenopathy	74
Pharyngitis	70
Rash (maculopapular, can include palms, soles, face; ulcerations involving mouth, genitalia, esophagus)	70
Myalgia/arthralgia	54
Diarrhea	32
Headache	32
Nausea/vomiting	27
Hepatosplenomegaly	14
Weight loss	13
Thrush	12
Neurologic symptoms (meningoencephalitis, aseptic meningitis, Guillain–Barre, facial palsy, brachial neuritis, cognitive impairment, psychosis)	12

Management of the source patient

- ◆ If known HIV positive, obtain history of antiretroviral medication use and resistance.
- ◆ Note most recent HIV viral load.
- ◆ Order HIV viral load and HIV genotype at time of bite or exposure.
- ◆ CCHCS HIV warmline consultation is strongly recommended CPHCSHIVQuestions@cdcr.ca.gov

Centers for Disease Control and Prevention. Antiretroviral postexposure prophylaxis after sexual, injection-drug use, or other nonoccupational exposure to HIV in the United States: Recommendations from the U.S. Department of Health and Human Services. MMWR 2005;54(No. RR-2); Federal Bureau of Prisons, Medical Management of Exposures: HIV, HBV, HCV, Human Bites and Sexual Assaults. June 2009.

Aberg JA, et al. HIV Medicine Association of the Infectious Diseases Society of America. Primary Care Guidelines for the Management of Persons Infected with Human Immunodeficiency Virus: 2009 Update by the HIV Medicine Association of the Infectious Diseases Society of America. Clin Infect Dis. (2009) 49 (5): 651-681. 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. February 20, 2013. Available at <http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

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PATIENT/INMATE HIV POST EXPOSURE PROPHYLAXIS
 For employee occupational exposures, contact your supervisor
NOTE: Protocols for occupational and non-occupational inmate exposures are the same.

Treatment Options

Preferred Regimens for Post Exposure Prophylaxis (PEP)

- ▶ Post exposure prophylaxis should be started within 72 hours of exposure and should not exceed 28 days.
- ▶ Write the duration of treatment (e.g. “for 28 days”) or reason for the prescription (e.g. “for post-exposure”) on the prescription to avoid accidental refills.

Non-Nucleoside/Nucleotide Reverse Transcriptase Inhibitor (NNRTI) based (select one from each column (total of THREE medications))		
Column 1	PLUS one from Column 2	PLUS one from Column 3
<ul style="list-style-type: none"> • efavirenz (Sustiva®)* 	<ul style="list-style-type: none"> • lamivudine (Epivir®) • emtricitabine (Emtriva®) 	<ul style="list-style-type: none"> • zidovudine (Retrovir®) • tenofovir (Viread®)

Protease Inhibitor (PI) based (select one from each column (total of THREE medications))		
Column 1	PLUS one from Column 2	PLUS Column 3
<ul style="list-style-type: none"> • lopinavir/ritonavir (Kaletra®) 	<ul style="list-style-type: none"> • lamivudine (Epivir®) • emtricitabine (Emtriva®) 	<ul style="list-style-type: none"> • zidovudine (Retrovir®)

See pages 9-13 for side effects and dosing.

*Contraindicated in pregnancy. Consultation with CCHCS HIV warmline recommended: CPHCSHIVQuestions@cdcr.ca.gov

Recommended Laboratory evaluation for patients who receive PEP for HIV exposure

Monitoring

Test	Baseline	During PEP	4-6 weeks after exposure	3 months after exposure	6 months after exposure
HIV antibody test	E, S*		E	E	E
CBC with differential	E	E			
Serum liver enzymes	E	E			
BUN/creatinine	E	E			
STD screen (gonorrhea, chlamydia, syphilis)	E,S	E***	E***		
HBV serology	E,S		E***†	E***†	
HCV serology	E,S			E	E
Pregnancy test (for women of reproductive age)	E	E***	E***		
HIV viral load	S		E**	E**	E**
HIV resistance testing	S		E**	E**	E**
CD4 lymphocyte count	S		E**	E**	E**

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 nonimmunity

Dental management of HIV infected patients

An otherwise stable HIV infected patient does not require special precautions or prophylaxis beyond universal precautions and the routine standard of care. Be aware that in cases of advanced immunosuppression, dental staff may consult medical staff for additional recommendations. For more information see the *Dental Management of Medically Complex Patients* at http://dental.pacific.edu/Documents/dental_prof/Medically_Complex.pdf

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CDC Classification System for HIV-Infected Adults

KEY TO ABBREVIATIONS:

CDC = U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION; PGL = PERSISTENT GENERALIZED LYMPHADENOPATHY

CD4 CELL COUNT CATEGORIES		CLINICAL CATEGORIES		
		A ASYMPTOMATIC, ACUTE HIV, OR PGL	B SYMPTOMATIC CONDITIONS, NOT A OR C	C AIDS-INDICATOR CONDITIONS
1	≥ 500 cells/mm³	A1	B1	C1
2	200-499 cells/mm³	A2	B2	C2
3	< 200 cells/mm³	A3	B3	C3

CATEGORY B: SYMPTOMATIC CONDITIONS

Category B symptomatic conditions are defined as symptomatic conditions occurring in an HIV-infected adolescent or adult that meet at least one of the following criteria:

- a) They are attributed to HIV infection or indicate a defect in cell-mediated immunity
- b) They are considered to have a clinical course or management that is complicated by HIV infection

Examples include, but are not limited to, the following:

- Bacillary angiomatosis
- Oropharyngeal candidiasis (thrush)
- Vulvovaginal candidiasis, persistent or resistant
- Pelvic inflammatory disease (PID)
- Cervical dysplasia (moderate or severe) / cervical carcinoma in situ
- Hairy leukoplakia, oral
- Idiopathic thrombocytopenia purpura
- Constitutional symptoms, such as fever (> 38.5°C) or diarrhea lasting > 1 month
- Peripheral neuropathy
- Herpes zoster (shingles), involving ≥ 2 episodes or > 1 dermatome

CATEGORY C: AIDS-INDICATOR CONDITIONS

- Bacterial pneumonia, recurrent (≥ 2 episodes in 12 months)
- Candidiasis of the bronchi, trachea, or lungs
- Candidiasis, esophageal
- Cervical carcinoma, invasive, confirmed by biopsy
- Coccidioidomycosis, disseminated or extrapulmonary
- Cryptococcosis, extrapulmonary
- Cryptosporidiosis, chronic intestinal (> 1 month duration)
- Cytomegalovirus disease (other than liver, spleen, or lymph nodes)
- Encephalopathy, HIV-related
- Herpes simplex: chronic ulcers (> 1 month duration), or bronchitis, pneumonitis, or esophagitis
- Histoplasmosis, disseminated or extrapulmonary
- Isosporiasis, chronic intestinal (> 1 month duration)
- Kaposi sarcoma
- Lymphoma, Burkitt, immunoblastic, or primary central nervous system
- *Mycobacterium avium* complex (MAC) or *M. kansasii*, disseminated or extrapulmonary
- *Mycobacterium tuberculosis*, pulmonary or extrapulmonary
- *Mycobacterium*, other species or unidentified species, disseminated or extrapulmonary
- *Pneumocystis jiroveci* (formerly *carinii*) pneumonia (PCP)
- Progressive multifocal leukoencephalopathy (PML)
- *Salmonella* septicemia, recurrent (nontyphoid)
- Toxoplasmosis of brain
- Wasting syndrome due to HIV (involuntary weight loss > 10% of baseline body weight) associated with either chronic diarrhea (≥ 2 loose stools per day ≥ 1 month) or chronic weakness and documented fever ≥ 1 month

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Prophylaxis to prevent the first episode of Opportunistic Disease

PATHOGEN	INDICATION	FIRST CHOICE	ALTERNATIVE
<i>Pneumocystis jiroveci</i> pneumonia (PCP)	<p>CD4 count < 200 cells/mm³ or history of oropharyngeal candidiasis</p> <p>CD4 % < 14% or history of AIDS defining illness</p> <p>CD4 count > 200 but < 250 cells/mm³ if monitoring CD4 count every one to three months is not possible</p>	<p>Trimethoprim-sulfamethoxazole (TMP-SMX), one double strength orally daily;</p> <p>or</p> <p>one single strength daily</p>	<p>TMP-SMX, one double strength orally three times a week</p> <p>or</p> <p>dapsone 100 mg orally once daily or 50mg orally twice daily</p> <p>or</p> <p>dapsone 50 mg orally daily and pyrimethamine 50mg orally weekly and leucovorin 25 mg 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 pyrimethamine 25 mg and leucovorin 10 mg orally daily</p>
<i>Toxoplasma gondii</i> encephalitis	<p>Toxoplasma IgG positive patients with CD4 count < 100 cells/mm³</p> <p>Seronegative patients receiving PCP prophylaxis not active against toxoplasmosis should have toxoplasma serology retested if CD4 count declines to < 100 cells/mm³</p> <p>Prophylaxis should be initiated if toxoplasmosis IgG seroconversion occurs</p>	<p>TMP-SMX, one double strength orally daily</p>	<p>TMP-SMX one double strength orally three times a week</p> <p>or</p> <p>TMP-SMX one single strength orally daily</p> <p>or</p> <p>dapsone 50 mg orally daily and pyrimethamine 50 mg orally weekly and leucovorin 25 mg orally weekly</p> <p>or</p> <p>dapsone 200 mg and pyrimethamine 75 mg and leucovorin 25 mg orally weekly</p> <p>or</p> <p>Atovaquone 1,500 mg with/without pyrimethamine 25 mg and leucovorin 10 mg orally daily</p>
<i>Mycobacterium tuberculosis</i> disease (Treatment of latent TB infection or LTBI)	<p>(+) diagnostic test for LTBI, no evidence of active TB, and no prior history of treatment for active or latent TB</p> <p>(-) diagnostic test for LTBI, but close contact with a person with infectious pulmonary TB and no evidence of active TB</p> <p>A history of untreated or inadequately treated healed TB (i.e., old fibrotic lesions) regardless of diagnostic tests for LTBI and no evidence of active TB</p>	<p>Isoniazid (INH) 300 mg orally daily and pyridoxine 50 mg orally daily for nine months</p> <p>or</p> <p>INH 900 mg orally twice a week and pyridoxine 50 mg 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>Rifampin (RIF) 600 mg orally daily for four months</p> <p>or</p> <p>Rifabutin (RFB) (dose adjusted based on concomitant ART) for four months</p> <p>Multiple drug-drug interactions exist between rifampin and HIV medications</p> <p>Consultation with HIV specialist or pharmacist strongly advised</p> <p>Twelve dose INH/rifapentine regimen is NOT recommended for HIV infected patients</p>
Disseminated <i>Mycobacterium avium</i> complex (MAC) disease	<p>CD4 count < 50 cells/mm³ after ruling out active MAC infection</p>	<p>Azithromycin 1,200 mg orally once weekly</p> <p>or</p> <p>Clarithromycin 500 mg orally twice a day</p> <p>or</p> <p>Azithromycin 600 mg orally twice weekly</p>	<p>RFB 300 mg 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 (ARV) Regimens Recommended for Treatment-Naïve Patients
 Note: Do not initiate, change, or discontinue HIV medications without first consulting an HIV specialist

Preferred Regimens: Those with optimal and durable efficacy, favorable tolerability and toxicity profile, and ease of use

<p><u>Non-Nucleoside Reverse Transcriptase Inhibitor based Regimen</u></p> <ul style="list-style-type: none"> • Efavirenz / tenofovir / emtricitabine (Atripla®) <p><u>Protease Inhibitor based Regimens</u></p> <ul style="list-style-type: none"> • Atazanavir (Reyataz®) boosted with ritonavir (Norvir®) and tenofovir / emtricitabine (Truvada®) • Darunavir (Prezista®) boosted with ritonavir (Norvir®) (once daily) and tenofovir / emtricitabine (Truvada®) <p><u>Integrase Strand Transfer Inhibitor based Regimen</u></p> <ul style="list-style-type: none"> • Raltegravir (Isentress®) and tenofovir / emtricitabine (Truvada®) <p><u>Preferred Regimens for Pregnant Women</u></p> <ul style="list-style-type: none"> • Atazanavir (Reyataz®) boosted with ritonavir (Norvir®) and zidovudine (Retrovir®) and lamivudine (Epivir®) • Lopinavir / ritonavir (Kaletra®) (twice daily) and zidovudine (Retrovir®) and lamivudine (Epivir®) • Nevirapine (Viramune®) and zidovudine (Retrovir®) and lamivudine (Epivir®) 	<p>Comments</p> <p><u>Efavirenz:</u></p> <ul style="list-style-type: none"> • Should not be used during the first trimester of pregnancy or in women trying to conceive or not using effective and consistent contraception <p><u>Tenofovir</u></p> <ul style="list-style-type: none"> • Use with caution in patients with renal insufficiency <p><u>Atazanavir:</u></p> <ul style="list-style-type: none"> • Should not be used in patients who require > 20 mg omeprazole equivalent per day <p><u>Darunavir:</u></p> <ul style="list-style-type: none"> • Treatment experienced patients with a history of resistance to HIV medications require twice daily darunavir boosted with ritonavir. Consult an HIV specialist for dosing requirements <p><u>Lopinavir / Ritonavir:</u></p> <ul style="list-style-type: none"> • Once-daily lopinavir / ritonavir is not recommended in pregnant women <p><u>Nevirapine:</u></p> <ul style="list-style-type: none"> • Should not be used in patients with moderate to severe hepatic impairment (Child-Pugh B or C) • Should not be used in women with pre-ARV CD4 > 250 cells/mm³ or men with pre-ARV CD4 > 400 cells/mm³
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Alternative Regimens: Regimens that are effective and tolerable, but have potential disadvantages compared with preferred regimens. An alternative regimen may be preferred for some patients.

<p><u>Non-Nucleoside Reverse Transcriptase Inhibitor based Regimens</u></p> <ul style="list-style-type: none"> • Efavirenz (Sustiva®) and abacavir / lamivudine (Epizicom®) • Rilpivirine / tenofovir / emtricitabine (Complera®) • Rilpivirine (Edurant®) and abacavir / lamivudine (Epizicom®) <p><u>Protease Inhibitor based Regimens</u></p> <ul style="list-style-type: none"> • Atazanavir (Reyataz®) boosted with ritonavir (Norvir®) and abacavir / lamivudine (Epizicom®) • Darunavir (Prezista®) boosted with ritonavir (Norvir®) and abacavir / lamivudine (Epizicom®) • Fosamprenavir (Lexiva®) boosted with ritonavir (Norvir®) (once or twice daily) and either abacavir / lamivudine (Epizicom®) or tenofovir / emtricitabine (Truvada®) • Lopinavir / ritonavir (Kaletra®) (once or twice daily) and either abacavir / lamivudine (Epizicom®) or tenofovir / emtricitabine (Truvada®) <p><u>Integrase Inhibitor based Regimens</u></p> <ul style="list-style-type: none"> • Elvitegravir / cobicistat / tenofovir / emtricitabine (Stribild®) • Raltegravir (Isentress®) and abacavir / lamivudine (Epizicom®) 	<p>Comments</p> <p><u>Rilpivirine:</u></p> <ul style="list-style-type: none"> • Rilpivirine is not recommended in patients with pretreatment HIV RNA > 100,000 copies/ml • Higher rate of virologic failures are reported in patients with pretreatment CD4 count < 200 cells/mm³ who are treated with rilpivirine and two nucleoside reverse transcriptase inhibitors (NRTI) • Use of proton pump inhibitors with rilpivirine is contraindicated <p><u>Abacavir:</u></p> <ul style="list-style-type: none"> • Should not be used in patients who test positive for HLA-B*5701 • Use with caution in patients with high risk of cardiovascular disease or with pretreatment HIV-RNA > 100,000 copies/ml <p><u>Elvitegravir / cobicistat / tenofovir / emtricitabine</u></p> <ul style="list-style-type: none"> • Should not be started in patients with an estimated Clcr <70 ml/min, and should be changed to an alternative regimen if the patient's Clcr falls below 50 ml/min. • Cobicistat is a potent CYP 3A inhibitor. It can increase the concentration of other drugs metabolized by this pathway. Multiple drug-drug interactions exist. • Elvitegravir / cobicistat / tenofovir / emtricitabine should not be used with other HIV medications or with nephrotoxic drugs.
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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. February 20, 2013. Available at <http://www.aidsinfo.nih.gov/ContentFiles/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. July 31, 2012. Available at <http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf>

HHS Panel on Antiretroviral Guidelines for Adults and Adolescents recommends a Fixed-Dose Combination Product of Elvitegravir/Cobicistat/Tenofovir/Emtricitabine as an Alternative Regimen in Antiretroviral Treatment-Naïve Individuals with HIV-1 Infection. Statement released September 18, 2012. Accessed at http://aidsinfo.nih.gov/contentfiles/AdultARVStatementOnEVG_COBI_TDF_FTC.pdf

SUMMARY		DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT
<p>Recommended Immunizations for HIV Positive Adults</p> <p>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.</p>			
Immunization Name	Associated Diseases	Dosage	Comments and Warning
Recommended for All HIV Positive Adults			
Hepatitis B Virus (HBV)	Hepatitis B	Three injections over a six month period	Recommended unless there is evidence of immunity (Hepatitis BsAb positive) or active hepatitis (Hepatitis BsAg positive). Consider vaccination if isolated HBV cAb positive and HBV viral load negative. Blood test to check for HBV antibody levels should be done after completion of immunization series. Additional injections may be necessary if antibody levels are too low.
Influenza	Flu	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) should not be used in this population.
Pneumococcal Polysaccharide	Pneumonia	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 ³ when the vaccine is given, immunization should be repeated when CD4 count is > 200 cells/mm ³ . Repeat once after five years.
Tetanus and Diphtheria Toxoid (Td)	1. Lockjaw 2. Diphtheria	One injection	Repeat vaccine every ten years.
Tetanus, Diphtheria, and Pertussis (Tdap)	1. Lockjaw 2. Diphtheria 3. Pertussis	One injection	Recommended for adults 64 years of age or younger and should be given in place of next Td booster.
Recommended for Some HIV Positive Adults			
Hepatitis A Virus (HAV)	Hepatitis A	Two injections over a one or one and a half year period	Recommended for all non-immune (Hepatitis A IgG negative) HIV infected inmate-patients.
Hepatitis A/Hepatitis B Combined Vaccine (Twinrix)	1. Hepatitis A 2. Hepatitis B	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	Bacterial meningitis	One injection	HIV positive adults and their health care providers should discuss whether Haemophilus influenzae immunization is needed.
Measles, Mumps, and Rubella (MMR)	1. Measles 2. Mumps 3. Rubella (German Measles)	One or two injections	People born before 1957 do not need to receive this vaccine. HIV positive adults with CD4 counts < 200 cells/mm ³ or clinical symptoms of HIV should not get the MMR vaccine. Each component can be given separately if needed to achieve adequate antibody levels.
Meningococcal	Bacterial meningitis	One or two injections	Recommended for college students, military recruits, people who do not have a spleen, and people traveling to certain parts of the world. Repeat after five years if still at risk for infection.
Varicella	Chickenpox	Two injections over four to eight weeks	People born before 1980 do not need to receive this vaccine. Recommended unless there is evidence of immunity or CD4 count is 200 cells/mm ³ or below. Not recommended to be given during pregnancy.
Not Recommended for HIV Positive Adults			
Anthrax	Anthrax	The currently available smallpox vaccine is a live viral vaccine. Some live virus vaccines are not recommended for people with HIV. Although the currently licensed anthrax vaccine is not a live virus vaccine, the Advisory Committee on Immunization Practices does not recommend routine anthrax vaccination. Shingles is a live virus vaccine and is not recommended for patients with HIV.	
Smallpox	Smallpox		
Zoster	Shingles		

This information is based on:

- (1) Recommended Adult Immunization Schedule - United States, January 9, 2009. Centers for Disease Control Website. Available at: <http://www.cdc.gov/vaccines/recs/schedules/adult-schedule.htm>. Accessed May 12, 2009.
- (2) MMWR Quick Guide Recommended Adult Immunization Schedule - United States, January 2009. Centers for Disease Control Web site. Available at: <http://www.cdc.gov/mmwr/PDF/wk/mm5753-Immunization.pdf>. Accessed May 12 2009.
- (3) MMWR General Recommendations on Immunization December 1, 2006 / Vol.55 / No. RR-15. Centers for Disease Control Web site. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5515a1.htm>. Accessed May 12, 2009.
- (4) 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. February 20, 2013 Available at <http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

SUMMARY	DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT
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Medications (Note: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist.)

All Classes	<ul style="list-style-type: none"> Current recommended minimum effective combination consists of three antiretroviral medications from a minimum of two classes. DO NOT PRESCRIBE AS MONOTHERAPY. If one medication is discontinued due to toxicity or other reason, discontinue combination. Monitor for hepatotoxicity; use with caution in patients coinfecting with chronic hepatitis B or C or end stage liver disease. Multiple concerns regarding drug-drug interactions exist. See page 13 for more information. 			
Nucleoside/ Nucleotide Reverse Transcriptase Inhibitors (NRTI)	Many NRTIs are associated with: <ul style="list-style-type: none"> Hepatic steatosis 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 Lipodystrophy 			
Medication	Formulation	Side Effects	Special Notes	Cost
ABACAVIR (ZIAGEN®, ABC) 	Tablet: 300 mg Solution: 20 mg/ml	<ul style="list-style-type: none"> Hypersensitivity reaction; potentially FATAL if rechallenged 	<ul style="list-style-type: none"> Hypersensitivity associated with positive HLA-B*5701: screen prior to initiation Hypersensitivity reaction: look for fever, rash, GI symptoms, cough, dyspnea, pharyngitis Adjust dose for hepatic dysfunction Avoid in treatment naïve patient if HIV viral load > 100,000 copies/ml 	\$\$\$
DIDANOSINE (VIDEX®, DDI) 	Delayed release capsule: 200 mg 250 mg 400 mg Powder for solution: 2 gm, 4 gm	<ul style="list-style-type: none"> Peripheral neuropathy Pancreatitis Lactic acidosis– See above 	<ul style="list-style-type: none"> Weight based dosing Adjust dose for renal dysfunction Adjust dose if given with tenofovir Avoid in combination with stavudine Contraindicated with ribavirin Prolonged exposure associated with noncirrhotic portal hypertension with esophageal varices 	\$\$\$
EMTRICITABINE (EMTRIVA®, FTC) 	Capsule: 200 mg	<ul style="list-style-type: none"> Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfecting with chronic hepatitis B 	<ul style="list-style-type: none"> Active against chronic hepatitis B Dose adjustment for renal dysfunction Contraindicated for use with lamivudine 	\$\$\$\$
LAMIVUDINE (EPIVIR®, 3TC) 	Tablet: 100 mg, 150 mg, 300 mg Solution: 10 mg/ml	<ul style="list-style-type: none"> Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfecting with chronic hepatitis B 	<ul style="list-style-type: none"> Active against chronic hepatitis B Adjust dose for renal dysfunction Contraindicated with emtricitabine 	\$\$\$
STAVUDINE (ZERIT®, D4T) 	Capsule: 15 mg 20 mg 30 mg 40 mg	<ul style="list-style-type: none"> Peripheral neuropathy Pancreatitis Lactic acidosis– See above Hyperlipidemia 	<ul style="list-style-type: none"> Weight based dosing Dose adjustment for renal dysfunction Avoid in combination with didanosine Contraindicated with zidovudine 	\$\$\$
TENOFOVIR (VIREAD®, TDF) 	Tablet: 150 mg 200 mg 250 mg 300 mg Powder: 40mg/gm	<ul style="list-style-type: none"> Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfecting with chronic hepatitis B Renal impairment Fanconi's Syndrome Decreased bone mineral density 	<ul style="list-style-type: none"> Active against chronic hepatitis B Adjust dose for renal dysfunction Adjust dose if given in combination with didanosine and/or atazanavir 	\$\$\$\$
ZALCITABINE (HIVID®, DDC) 	No longer manufactured			
ZIDOVUDINE (RETROVIR®, AZT) 	Tablet: 300 mg Syrup: 50 mg/ml Capsule: 100 mg	<ul style="list-style-type: none"> Bone marrow suppression Anemia (usually macrocytic) Myopathy Nausea 	<ul style="list-style-type: none"> Contraindicated for use with stavudine Caution in use with other agents that cause bone marrow suppression Adjust dose for renal dysfunction 	\$\$\$

Bold = Formulary

SUMMARY	DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT
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Medications (Note: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist.)

Non-nucleoside Reverse Transcriptase Inhibitors (NNRTI)	Many NNRTIs are associated with: <ul style="list-style-type: none"> • 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 • Hyperlipidemia • Cross class resistance; if history of prior NNRTI use and poor virologic response, consult HIV specialist prior to initiation of second NNRTI • Long half life: consult HIV specialist if possible prior to discontinuation to avoid the emergence of resistant mutations • Multiple concerns regarding drug-drug interactions. See page 13 for more information. 			
Medication	Formulation	Side Effects	Special Notes	Cost
DELAVIRDINE (RESCRIPTOR®, DLV) 	Tablet: 100 mg 200 mg		<ul style="list-style-type: none"> • Not first line agent; rarely used. 	\$\$\$\$
EFAVIRENZ (SUSTIVA®, EFV) 	Tablet: 600 mg Capsule: 50 mg 200 mg	<ul style="list-style-type: none"> • CNS side effects: dizziness, bizarre dreams • False positive with certain types of cannabinoid testing 	<ul style="list-style-type: none"> • Potentially teratogenic especially in first trimester; category D: obtain pregnancy test prior to starting in women of child bearing potential. • Avoid taking with a high fat meal. 	\$\$\$\$
ETRAVIRINE (INTELENCE®, ETR) 	Tablet: 25 mg 100 mg 200 mg	<ul style="list-style-type: none"> • Hepatotoxicity • Hypersensitivity reaction 		\$\$\$\$
NEVIRAPINE (VIRAMUNE®, NVP) 	Tablet: 200 mg Solution: 50 mg / 5ml XR: 400 mg	<ul style="list-style-type: none"> • Hepatotoxicity 	<ul style="list-style-type: none"> • Avoid starting nevirapine in women with CD4 > 250 cells/mm³ or men with CD4 > 400 cells/mm³. Once patients on NVP reach a CD4 cell count higher than these cut-offs, they are not required to discontinue unless otherwise indicated. • Dose escalation with initiation: 200 mg daily for two weeks, then 200 mg, one twice daily or two once daily. • 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. 	\$\$\$
RILPIVIRINE (EDURANT®, RPV) 	Tablet: 25 mg	<ul style="list-style-type: none"> • Depression • Insomnia • Headache • Rash 	<ul style="list-style-type: none"> • 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. • Use with caution in patients with baseline HIV viral load > 100,000 copies/ml 	\$\$\$\$
Protease Inhibitor (PI)	Many PIs are associated with: <ul style="list-style-type: none"> • 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 13 for more information. 			
ATAZANAVIR (REYATAZ®, ATV) 	Capsule: 100 mg 150 mg 200 mg 300 mg	<ul style="list-style-type: none"> • Indirect hyperbilirubinemia: jaundice, scleral icterus rarely a cause for discontinuation • PR prolongation • Nephrolithiasis, cholelithiasis 	<ul style="list-style-type: none"> • Requires an acid environment for optimal absorption; specific dosing recommendations for use with proton pump inhibitors, H2 blockers, antacids: consult an HIV specialist or http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf for specifics • Adjust dose for hepatic dysfunction • Adjust dose if given with tenofovir 	\$\$\$\$
DARUNAVIR (PREZISTA®, DRV) 	Tablet: 75 mg 600 mg 800 mg	<ul style="list-style-type: none"> • Rash; caution if sulfonamide allergy. Stevens Johnson Syndrome has been reported • Headache 	<ul style="list-style-type: none"> • Should always be used with ritonavir 	\$\$\$\$

SUMMARY	DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT
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Medications (Note: Do not initiate, change or discontinue HIV medications without first consulting an HIV specialist.)

Medication	Formulation	Side Effects	Special Notes	Cost
Protease Inhibitor (continued)				
FOSAMPRENAVIR (LEXIVA [®] , LEX) 	Tablet: 700 mg Suspension: 50 mg/ml	<ul style="list-style-type: none"> • Rash; caution if sulfonamide allergy • Nephrolithiasis (rare) 	<ul style="list-style-type: none"> • Dose adjustment for hepatic dysfunction 	\$\$\$\$\$
INDINAVIR (CRIVAN [®] , IND) 	Capsule: 200 mg 400 mg	<ul style="list-style-type: none"> • Headache • Asthenia • Metallic taste • Alopecia • Hemolytic anemia • Thrombocytopenia • Indirect hyperbilirubinemia: jaundice, scleral icterus. Rarely a cause for discontinuation • Nephrolithiasis 	<ul style="list-style-type: none"> • Dose adjustment for hepatic dysfunction 	\$\$\$\$\$
LOPINAVIR/RITONAVIR (KALETRA [®] , LPV) 	Tablet: 200mg-50 mg 100mg-25 mg Solution: 400 mg- 100 mg / 5ml	<ul style="list-style-type: none"> • Asthenia • PR and QT prolongation 	<ul style="list-style-type: none"> • Coformulated with ritonavir 	\$\$\$\$\$
NELFINAVIR (VIRACEPT [®] , NLF) 	Tablet: 250 mg 625 mg Powder: 50 mg/gm	<ul style="list-style-type: none"> • Diarrhea 	<ul style="list-style-type: none"> • Do not use with ritonavir 	\$\$\$\$\$
RITONAVIR (NORVIR [®] , RTV) 	Tablet: 100 mg Capsule: 100 mg Solution: 80 mg/ml	<ul style="list-style-type: none"> • Paresthesia – circumoral and extremities • Asthenia • Taste perversion 	<ul style="list-style-type: none"> • Ritonavir primarily used to increase the levels of other PIs • Full dose ritonavir poorly tolerated • Refrigeration not required with tablet 	\$\$\$\$\$
SAQUINAVIR (INVIRASE [®] , SQV) 	Tablet: 500 mg Capsule: 200 mg	<ul style="list-style-type: none"> • Headache • PR and QT prolongation 	<ul style="list-style-type: none"> • Should always be used with ritonavir • Pretreatment EKG is recommended 	\$\$\$\$\$
SAQUINAVIR (FORTOVASE [®] , SGC) 	N/A	No longer manufactured		N/A
TIPRANAVIR (APTIVUS [®] , TPV) 	Capsule: 250 mg Solution: 100 mg/ml	<ul style="list-style-type: none"> • Rash; caution if sulfonamide allergy • Potentially fatal hepatotoxicity • Intracranial hemorrhage 	<ul style="list-style-type: none"> • Should always be used with ritonavir 	\$\$\$\$\$
Integrase Strand Transfer Inhibitor (INSTI)				
RALTEGRAVIR (ISENTRISS [®] , RAL) 	Tablet: 400 mg Chew: 25 mg 100 mg	<ul style="list-style-type: none"> • Asthenia • Nausea • Diarrhea • Headache • CPK elevation 		\$\$\$\$\$

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.)

Medication	Formulation	Side Effects	Special Notes	Cost
Fusion Inhibitor				
ENFUVRTIDE (FUZEON [®] , T20) 	For injection: 90 mg / vial	<ul style="list-style-type: none"> Injection site reactions Increased bacterial pneumonia Hypersensitivity reaction 	<ul style="list-style-type: none"> Subcutaneous injection twice daily 	\$\$\$\$\$
CCR5 Inhibitor				
MARAVIROC (SELZENTRY [®] , MVC) 	Tablet: 150 mg 300 mg	<ul style="list-style-type: none"> Abdominal pain Cough Dizziness Rash Hepatotoxicity Orthostatic hypotension 	<ul style="list-style-type: none"> Many drug-drug interactions; consult an HIV specialist, pharmacist or http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf prior to initiation Tropism testing required prior to starting 	\$\$\$\$\$
Coformulations				
ABACAVIR/ LAMIVUDINE (EPZICOM [®] , EPZ) 	Tablet: 600 mg / 300 mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above	\$\$\$\$\$
EFAVIRENZ/ EMTRICITABINE/ TENOFIVIR (ATRIPLA [®]) 	Tablet: 600 mg / 200 mg / 300 mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above	\$\$\$\$\$
COBICSTAT/ ELVITEGRAVIR/ EMTRICITABINE/ TENOFIVIR (STRIBILD [®] , EVG/COBI/TDF/ FTC) 	Tablet: 150 mg / 150 mg 200 mg / 300 mg	<ul style="list-style-type: none"> Nausea Diarrhea Headache 	<ul style="list-style-type: none"> Many drug-drug interactions; consult an HIV specialist, pharmacist or http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf prior to initiation Only recommended for patients with baseline Clcr > 70 ml/min; discontinue if Clcr decreases to < 50 ml/min Avoid concomitant use of nephrotoxic drugs Food requirement Appropriate dosages of EVG/COBI/TDF/FTC and other ARV drugs have not been established 	\$\$\$\$\$
EMTRICITABINE/ RILPIVIRINE/ TENOFIVIR (COMPLERA [®]) 	Tablet: 200 mg / 25 mg / 300 mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above	\$\$\$\$\$
TENOFIVIR/ EMTRICITABINE (TRUVADA [®] , TVD) 	Tablet: 200 mg / 300 mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above	\$\$\$\$\$
LAMIVUDINE/ ZIDOVUDINE (COMBIVIR [®] , CMB) 	Tablet: 150 mg / 300 mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above	\$\$\$\$\$
ABACAVIR/ LAMIVUDINE/ ZIDOVUDINE (TRIZIVIR [®] , TZV)	Tablet: 300 mg / 150 mg / 300 mg	See information regarding each individual component, listed above	See information regarding each individual component, listed above	\$\$\$\$\$

Bold = Formulary

SUMMARY	DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT
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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 http://aidsinfo.nih.gov/contentfiles/Adult_OI_041009.pdf prior to discontinuing prophylaxis when possible			
Medication	Formulation	Side Effects	Special Notes	Cost
PNEUMOCYSTIS JIROVECI (PCP) PROPHYLAXIS: START IF CD4 < 200 CELLS/MM³, CD4 % <14% OR THE PRESENCE OF ORAL CANDIDIASIS				
TRIMETHOPRIM-SULFAMETHOXAZOLE (TMP-SMX, BACTRIM DS [®] , SEPTRA DS)	Tablet: 160 mg / 800 mg	<ul style="list-style-type: none"> Rash, Stevens Johnson Syndrome Hematologic abnormalities 	<ul style="list-style-type: none"> Dose adjustment for renal dysfunction Use with caution if G6PD deficient (rare) 	\$
DAPSONE 	Tablet: 25 mg 100 mg	<ul style="list-style-type: none"> Rash, hypersensitivity reaction Hematologic abnormalities Hemolytic anemia (G6PD related) Neuropathy 	<ul style="list-style-type: none"> Contraindicated in G6PD deficiency 	\$
ATOVAQUONE (MEPRON [®])	Suspension: 750 mg / 5 ml	<ul style="list-style-type: none"> Rash GI intolerance 		\$\$\$\$
PENTAMIDINE (PENTAM [®])	Injection: 300 mg	<ul style="list-style-type: none"> Rash Renal impairment Bronchospasm Arrhythmia Hematologic abnormalities 	<ul style="list-style-type: none"> Given via nebulizer for prophylaxis Dose adjustment for renal dysfunction 	\$\$\$
TOXOPLASMA GONDII PROPHYLAXIS: START IF CD4 < 100 CELLS/MM³ AND PATIENT HAS POSITIVE TOXO IgG				
TRIMETHOPRIM SULFAMETHOXAZOLE (TMP-SMX, BACTRIM DS [®] , SEPTRA DS)	Tablet: 160 mg / 800 mg	See above Pneumocystis jiroveci (PCP) prophylaxis section		
PYRIMETHAMINE (DARAPRIM [®]) 	Tablet: 25 mg	<ul style="list-style-type: none"> See above Pneumocystis jiroveci (PCP) prophylaxis section Hemolytic anemia (G6PD related) 		\$\$\$
MYCOBACTERIUM AVIUM COMPLEX (MAC) PROPHYLAXIS: START IF CD4 <50 CELLS/MM³				
AZITHROMYCIN (ZITHROMAX [®]) 	Tablet: 250 mg 500 mg 600 mg	<ul style="list-style-type: none"> Rash Diarrhea Nausea Abdominal pain 		\$
CLARITHROMYCIN (BIAVIN [®]) 	Tablet: 250 mg 500 mg	<ul style="list-style-type: none"> Rash Diarrhea Nausea Abdominal pain Pseudomembranous colitis 		\$

Bold = Formulary

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>
- ▶ <http://www.epocrates.com>
- ▶ <http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf>

or contact the CCHCS HIV warmline at CPHCSSHIVQuestions@cdcr.ca.gov

PATIENT EDUCATION/SELF MANAGEMENT

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

Acquired Immunodeficiency Syndrome (AIDS) is caused by HIV.

- You can have HIV for years and not feel sick.
- If HIV is not treated it can slowly destroy your immune system. You can be at risk for other serious and maybe deadly infections. Early treatment, can save your life.
- There is no cure or vaccine for HIV. Effective treatment can lengthen your life and prevent other painful and serious problems.
- **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 body.
- **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.

Sexual activity and the use of needles for non-prescribed reasons are illegal within the California Department of Corrections and Rehabilitation and may lead to prosecution.

- **Know how HIV is NOT spread:** 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:
 - Flu-like symptoms
 - Night sweats
 - Fevers
 - Weight loss
 - Diarrhea
 - Swollen lymph glands
 - Oral thrush (white patches in your mouth)
 - Vaginal yeast infections
- If you are on HIV medicines, be sure to take them daily. Missed doses can increase your risk of becoming resistant and the medicine may not be able to control your HIV. Tell your health care provider if you are not able to take your HIV medicines due to bad side effects, you forget a lot, or other reasons.

PATIENT EDUCATION/SELF MANAGEMENT
MEDICATION IDENTIFICATION GUIDE

NUCLEOSIDE/ NUCLEOTIDE REVERSE TRANSCRIP- TASE INHIBI- TORS (NRTI)	<input type="checkbox"/> ABACAVIR (ZIAGEN, ABC) 	<input type="checkbox"/> DIDANOSINE (VIDEX, DDI) 	<input type="checkbox"/> EMTRICITABINE (EMTRIVA, FTC) 	<input type="checkbox"/> LAMIVUDINE (EPIVIR, 3TC) 
	<input type="checkbox"/> STAVUDINE (ZERIT, D4T) 	<input type="checkbox"/> TENOFOVIR (VIREAD, TDF) 	<input type="checkbox"/> ZIDOVUDINE (RETROVIR, AZT) 	
NON- NUCLEOSIDE REVERSE TRANSCRIP- TASE INHIBI- TORS (NNRTI)	<input type="checkbox"/> DELAVIDINE (RESCRIPTOR DLV) 	<input type="checkbox"/> EFAVIRENZ (SUSTIVA/EFV) 	<input type="checkbox"/> ETRAVIRINE (INTELENCE, ETR) 	<input type="checkbox"/> NEVIRAPINE (VIRAMUNE, NVP) 
	<input type="checkbox"/> RILPIVIRINE (EDURANT, RPV) 			
PROTEASE INHIBITOR (PI)	<input type="checkbox"/> ATAZANAVIR (REYATAZ, ATV) 	<input type="checkbox"/> DARUNAVIR (PREZISTA, DRV) 	<input type="checkbox"/> FOSAMPRENAVIR (LEXIVA, LEX) 	<input type="checkbox"/> INDINAVIR (CRIVIAN, IND) 
	<input type="checkbox"/> KALETRA (LOPINAVIR/ RITONAVIR LPV) 	<input type="checkbox"/> NELFINAVIR (VIRACEPT, NLF) 	<input type="checkbox"/> RITONAVIR (NORVIR, RTV) 	<input type="checkbox"/> SAQUINAVIR (INVIRASE, SQV) 
	<input type="checkbox"/> TIPRANAVIR (APTIVUS, TPV) 			
INTEGRASE INHIBITOR (INSTI)	<input type="checkbox"/> RALTEGRAVIR (ISENTRESS, RAL) 			
COFORMULA- TIONS	<input type="checkbox"/> ABACAVIR/LAMIVUDINE (EPZICOM, EPZ) 	<input type="checkbox"/> EFAVIRENZ/TENOFOVIR/ EMTRICITABINE (ATRIPLA) 	<input type="checkbox"/> ELVITEGRAVIR/ COBICICISTAT/ MTRICITABINE/ TENOFVIR (STRIBILD) 	<input type="checkbox"/> RILPIVIRINE/TENOFOVIR/ EMTRICITABINE (COMPLERA) 
	<input type="checkbox"/> TENOFOVIR/EMTRICITABINE (TRUVADA, TVD) 	<input type="checkbox"/> ZIDOVUDINE /LAMIVUDINE / ABACAVIR (TRIZIVIR, TZV) 	<input type="checkbox"/> ZIDOVUDINE / LAMIVUDINE (COMBIVIR, CMB) 	
OTHER	<input type="checkbox"/> ENFUVIRTIDE (FUZEON, T20) 	<input type="checkbox"/> MARAVIROC (SELZENTRY, MVC) 		