# CCHCS Care Guide: HIV

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

**ALL HIV INFECTED PATIENTS MUST BE MANAGED BY AN CCHCS HIV SPECIALIST**

## GOALS

| | |
|---|---|
| **Offer HIV screening** | **Identify ACUTE HIV seroconversion** |
| **Refer ALL HIV patients to HIV specialists for evaluation** | **Identify CHRONIC HIV infection** |

## ALERTS

**Inappropriate or suboptimal treatment regimens**

- Patients receiving only one or two HIV medications rather than a 3 drug combination (note that some coformulations exist)
- Patients on treatment for months with persistently detectable viral load
- Patients with CD4 < 200 cells/mm$^3$ who are not on Pneumocystis Jiroveci (PCP) prophylaxis
- Patients with CD4 < 50 cells/mm$^3$ who are not on Mycobacterium Avium Complex (MAC) prophylaxis

**Red Flags**

| **ANY CD4** | **CD4<200** | **CD4<100** |
|---|---|---|
| new onset fevers | Dyspnea | headache |
| weight loss > 10% | cough | blurry or lost vision |
| fatigue | fevers | |
| Dyspnea | | |
| skin lesions | | |
| anemia | | |

**Use HIV warmline for any HIV Related questions: CDCR CPHCS HIV Questions@cdcr.ca.gov**

## DIAGNOSTIC CRITERIA / EVALUATION

### DIAGNOSIS

Consider HIV in the following circumstances:
- Patients with known high risk behaviors prior to, or during incarceration (tattoos, injection drug use, sexual exposure)
- Patients with symptoms suggesting immunocompromise (e.g., unexplained weight loss (>10%), recurring fevers, rashes, diarrhea, enlarged lymph nodes)

### INITIAL EVALUATION

- Diagnostic laboratory evaluation **See page 7 for list of baseline labs**
- Risk reduction strategies
- Date of diagnosis
- Lowest (nadir) CD4 count
- Transmission risk factor
- History of opportunistic infections
- History AIDS related conditions
- HIV medication history
- HIV resistance history
- Smoking/substance use history
- History of TB/STD/RPR
- Vaccination history
- Thorough review of systems

## 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**:

**Antiretroviral therapy (ART) is recommended for all HIV infected individuals** 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 or dual therapy is **NEVER** acceptable for HIV treatment. At a minimum, three agents must be used in combination. Initial HIV combination treatment regimens: page 6. Precautions and side effects: pages 9-13, noting specific contraindications and interactions between HIV medications and the patient's existing medications.

## MONITORING (see page 7 for full details of monitoring)

- Initial- follow up within one to two weeks
- Ongoing- follow up at least monthly until virus undetectable
- Undetectable viral load- well controlled patients (defined as HIV viral load undetectable and CD4 cell count > 200 cells/mm$^3$) quarterly follow up for at least the first 2 years of treatment

Contact HIV warmline if any questions: CDCR CPHCS HIV Questions@cdcr.ca.gov

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# HIV TESTING

Clinical presentation suspicious for acute versus chronic HIV: offer HIV testing

Routine HIV testing offered to new arrivals. See opt out* HIV antibody screening policy, IMSP&P Vol. 10, Ch. 8. HIV testing is also available on patient request.

Patient reports a history of HIV disease, but no documentation of a positive HIV antibody in the health record

Patient agrees to HIV test

No → Document reasons for refusal of test

Yes

**Is Acute HIV suspected?** (any of the following present for ≥ 6 weeks):

- Fevers/Myalgia
- Lymphadenopathy
- Pharyngitis
- Rash
- Diarrhea
- Headache

Yes → Order HIV-1/2 antigen/antibody screening test AND quantitative HIV viral load

- Screening test and viral load **negative** → **Patient is HIV Negative**: Consider retesting annually and as clinically indicated
- Screening test and/or viral load **positive** → **Patient is HIV Positive:**
  1. Order baseline labs (page 1)
  2. Perform clinical evaluation (page 1)
  3. Refer to HIV specialist onsite or via telemedicine
  4. If CD4 < 200 cells/mm$^3$, start PCP prophylaxis (page 5, 13)
  5. If CD4 < 50 cells/mm$^3$, start MAC prophylaxis (page 5, 13)
  6. Change 128C3 to high risk, clinical category 2, restricted cocci area
  7. **Do not attempt to initiate HIV medications without HIV specialist consultation**

No → Order HIV-1/2 antigen/antibody (Ag/Ab) screening test.

- **positive** → Confirmatory HIV-1 and HIV-2 antibodies performed automatically
  - HIV-1 **positive** or HIV-2 **positive** Or **both positive** → **Patient is HIV Positive:** (see above)
  - Both HIV-1 And HIV-2 **negative** → Qualitative HIV viral load (automatically performed)
    - **positive** → **Patient is HIV Positive:** (see above)
    - **negative** → **Patient is HIV Negative**: Consider retesting annually and as clinically indicated
- **negative** → **Patient is HIV Negative**: Consider retesting annually and as clinically indicated

*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 (Ag/Ab) | 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 |
| Positive | HIV-1 and HIV-2 negative | Negative | HIV Negative |
| Negative | Not performed | Not performed | HIV Negative |

**For additional information contact:**
**CCHCS warmline CDCR CPHCS HIV Questions@cdcr.ca.gov**
**National HIV/AIDS Clinician Consultation Center warmline 800-933-3413**

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. May 1, 2014. Available at https://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf. Centers for Disease Control and Prevention and Association of Public Health Laboratories. Laboratory Testing for the Diagnosis of HIV Infection: Updated Recommendations. Available at http://stacks.cdc.gov/view/cdc/23447. Published June 27, 2014

# PATIENT HIV POST EXPOSURE PROPHYLAXIS (PEP)

**For employee occupational exposures, contact employee's supervisor (do not use this Care Guide)**

**NOTE: Protocols for inmate occupational and non-occupational exposures are the same.**

## DIAGNOSTIC CRITERIA/EVALUATION

| RISK LEVEL | HIGHER | LOWER | NO RISK |
|---|---|---|---|
| **Exposure** | • Receptive or insertive vaginal or anal intercourse<br>• Bites<br>• Needle sharing<br>• Hollow bore needle sticks | • Receptive and insertive oral-vaginal, oral-anal, or oral-penile contact | • Kissing<br>• Mouth to mouth resuscitation<br>• Non bloody human bites<br>• Solid bore needle sticks<br>• Percutaneous injury from non bloody sharps<br>• Mutual masturbation without blood or skin breakdown |
| **Source HIV status** | Positive or unknown | Evaluate case-by case:<br>**Yes if:**<br>• HIV positive and HIV viral load is elevated*<br>• mucosa is not intact (gingival disease, oral lesions)<br>• blood exposure noted<br>• genital ulcer disease<br>**Otherwise No** | Any negative, positive or unknown |
| PEP warranted? | YES | | **NO** |

*Consultation with CCHCS HIV warmline recommended: CDCR CPHCS HIV Questions@cdcr.ca.gov

## TREATMENT OPTIONS

| PREFERRED REGIMEN FOR POST EXPOSURE PROPHYLAXIS (PEP) (INDICATED COMBINATION BELOW) | | |
|---|---|---|
| **Medication (prescribe both)** | **Sig** | **Prescribe This Quantity** |
| Tenofovir/emtricitabine (Truvada®) | 1 PO daily AND | Prescribe 28 |
| Raltegravir (Isentress®) | 400 mg 1 PO BID | Prescribe 56 |

- Start post-exposure prophylaxis within 72 hours of exposure; do not exceed 28 days.
- Include 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.
- See pages 9-13 for side effects and dosing.

## MONITORING

**Recommended Laboratory evaluation for patients who receive PEP for HIV exposure**

| Test | Baseline | Week 2 | Week 4 | Week 12 |
|---|---|---|---|---|
| HIV antibody test | E, S* | | E | E |
| CBC with differential | E | E | | |
| Serum liver enzymes | E | E | E | |
| BUN/creatinine | E | E | E | |
| STD screen (gonorrhea, chlamydia, syphilis) | E,S | E*** | | |
| HBV serology | E¶,S | | E***¶ | E***¶ |
| HCV serology | E,S | | | E |
| Pregnancy test (for women of reproductive age) | E | E*** | E*** | |
| HIV viral load | S | | E** | E** |
| HIV resistance testing | S | | E** | E** |
| CD4 lymphocyte count | S | | 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

New York State Department of Health AIDS Institute. HIV Prophylaxis Following Non-Occupational Exposure, July 2013. www.hivguidelines.org. 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. March 2014. http://www.bop.gov/resources/pdfs/exposures.pdf

## CDC* CLASSIFICATION FOR HIV-INFECTED ADULTS

| CD4 CELL COUNT CATEGORIES (BASED ON HISTORICAL CD4 NADIR) | CLINICAL CATEGORIES | | |
|---|---|---|---|
| | **A** ASYMPTOMATIC, ACUTE HIV, OR PGL** | **B** SYMPTOMATIC CONDITIONS, NOT A OR C | **C** AIDS-INDICATOR CONDITIONS |
| **1 ≥ 500 cells/mm$^3$** | A1 | B1 | C1 |
| **2 200-499 cells/mm$^3$** | A2 | B2 | C2 |
| **3 < 200 cells/mm$^3$** | A3 | B3 | C3 |

### CATEGORY B: SYMPTOMATIC CONDITIONS

Category B symptomatic conditions are 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 thrombocytopenic 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, biopsy confirmed
- 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

***CDC = U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION**
****PGL = PERSISTENT GENERALIZED LYMPHADENOPATHY**
Centers for Disease Control and Prevention. 1993 Revised Classification System for HIV Infection and Expanded Surveillance Case Definition for AIDS Among Adolescents and Adults. MMWR **December 18, 1992 / 41(RR-17)** http://www.cdc.gov/mmwr/preview/mmwrhtml/00018871.htm

## Dental Management of HIV infected Patients

An otherwise stable HIV infected patient does not require special precautions or prophylaxis for dental care beyond standard precautions and the routine standard of care. 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

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

| CONDITION | INDICATION | PREFERRED | ALTERNATIVE |
|---|---|---|---|
| *Pneumocystis jiroveci* pneumonia (PCP) | CD4 count < 200 cells/mm$^3$ or history of oropharyngeal candidiasis<br><br>CD4 % < 14% or history of AIDS defining illness<br><br>CD4 count > 200 but < 250 cells/mm$^3$ (if monitoring CD4 count every one to three months is not possible) | **Trimethoprim-sulfamethoxazole (TMP-SMX)**, one double strength orally daily (first choice)<br>**or**<br>one single strength daily | **TMP-SMX**, orally one double strength three times a week<br>**or**<br>**dapsone 100 mg** orally once daily or 50mg orally twice daily<br>**or**<br>**dapsone** 50 mg orally daily and **pyrimethamine** 50mg orally weekly and **leucovorin** 25 mg orally weekly<br>**or**<br>Aerosolized pentamidine 300 mg via Respigard II® nebulizer every month<br>**or**<br>atovaquone 1,500 mg orally daily<br>**or**<br>atovaquone 1,500 mg and **pyrimethamine 25 mg** and **leucovorin** 10 mg orally daily |
| *Toxoplasma gondii* encephalitis | Toxoplasma IgG positive patients with CD4 count < 100 cells/mm$^3$<br><br>Seronegative patients receiving PCP prophylaxis not active against toxoplasmosis should have toxoplasma serology retested if CD4 count declines to < 100 cells/mm$^3$<br><br>Prophylaxis should be initiated if toxoplasmosis IgG seroconversion occurs | **TMP-SMX**, one double strength orally daily | **TMP-SMX** orally one double strength three times a week<br>**or**<br>**TMP-SMX** orally one single strength daily<br>**or**<br>**dapsone** 50 mg orally daily and **pyrimethamine** 50 mg orally weekly and **leucovorin** 25 mg orally weekly<br>**or**<br>**dapsone** 200 mg and **pyrimethamine** 75 mg and **leucovorin** 25 mg orally weekly<br>**or**<br>Atovaquone 1,500 mg with/without **pyrimethamine 25 mg** and **leucovorin** 10 mg orally daily |
| *Mycobacterium tuberculosis* infection (Treatment of latent TB infection or LTBI) | No evidence of active TB disease and:<br>▸ (+) diagnostic test for LTBI, and no prior history of treatment for active or latent TB<br>▸ (-) diagnostic test for LTBI, but close contact with a person with infectious pulmonary TB<br>▸ history of untreated or inadequately treated healed TB (i.e., old fibrotic lesions) regardless of diagnostic tests for LTBI | **Isoniazid (INH) 300 mg** orally daily **and pyridoxine 50 mg** orally daily for nine months<br>**or**<br>**INH** 900 mg orally twice a week and **pyridoxine 50 mg** orally daily for nine months<br>For persons exposed to drug-resistant TB, selection of drugs after consultation with public health authorities is advised | **Rifampin (RIF)** 600 mg orally daily for four months<br>**or**<br>**Rifabutin (RFB)** (dose adjusted based on concomitant ART) for four months<br>Multiple drug-drug interactions exist between rifampin and HIV medications<br>Consultation with HIV specialist or pharmacist strongly advised<br>Twelve dose INH/rifapentine regimen is NOT recommended for HIV infected patients |
| Disseminated *Mycobacterium avium* complex (MAC) disease | CD4 count < 50 cells/mm$^3$ after ruling out active MAC infection | **Azithromycin** 1,200 mg orally once weekly<br>**or**<br>**Clarithromycin 500 mg** orally twice a day<br>**or**<br>**Azithromycin 600 mg** orally twice weekly | **RFB** 300 mg orally daily (dosage adjustment based on drug-drug interactions with ART); rule out active TB before starting RFB |

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**

**Bold = Formulary**

Centers for Disease Control and Prevention. Guidelines for Prevention and Treatment of Opportunistic Infections in HIV-Infected Adults and Adolescents. MMWR 2009;58: Pg.145-146. http://www.cdc.gov/mmwr/pdf/rr/rr5804.pdf

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

## ANTIRETROVIRAL (ARV) REGIMENS RECOMMENDED FOR TREATMENT-NAÏVE PATIENTS

**DO NOT initiate, change, or discontinue HIV medications without first consulting an HIV specialist (CDCR CPHCS HIV Questions@cdcr.ca.gov)**

**PREFERRED REGIMENS—**Those with optimal and durable efficacy, favorable tolerability and toxicity profile, and ease of use

### INTEGRASE STRAND TRANSFER INHIBITOR BASED REGIMENS

- **Cobicstat/ elvitegravir/emtricitabine/ tenofovir (Stribild®)**
- **Dolutegravir (Tivicay®) and tenofovir / emtricitabine (Truvada®)**
- Dolutegravir/abacavir / lamivudine (Triumeq®)
- **Raltegravir (Isentress®) and tenofovir / emtricitabine (Truvada®)**

### PROTEASE INHIBITOR BASED REGIMENS

- **Darunavir (Prezista®) boosted with ritonavir (Norvir®) (once daily) and tenofovir / emtricitabine (Truvada®)**

**ALTERNATE REGIMENS:** Regimens that are effective and tolerable, but that have potential disadvantages when compared with the recommended regimens listed above.

### NON NUCLEOSIDE REVERSE TRANSCRIPTASE INHIBITOR BASED REGIMENS

- **Efavirenz / tenofovir / emtricitabine (Atripla®)**
- **Rilpivirine / tenofovir / emtricitabine (Complera®)**

### PROTEASE INHIBITOR BASED REGIMENS

- **Atazanavir (Reyataz®) boosted with ritonavir (Norvir®) and tenofovir / emtricitabine (Truvada®)**
- **Atazanavir (Reyataz®) boosted with** cobicistat (Tybost®) **and tenofovir / emtricitabine (Truvada®)**
- **Darunavir (Prezista®) boosted with ritonavir (Norvir®) or** cobicistat (Tybost®) **and abacavir / lamivudine (Epzicom)**
- **Darunavir (Prezista®) boosted with** cobicistat (Tybost®) **and tenofovir / emtricitabine (Truvada®)**

### PREFERRED REGIMENS FOR PREGNANCY

| CHOOSE ONE | | CHOOSE ONE |
|---|---|---|
| • **Abacavir / lamivudine (Epzicom®)**<br>• **Tenofovir / emtricitabine (Truvada®)**<br>• **Tenofovir (Viread®) and lamivudine (Epivir®)**<br>• **Zidovudine (Retrovir®) and lamivudine (Epivir®)** | **PLUS** | • **Atazanavir (Reyataz®) boosted with ritonavir (Norvir®)**<br>• **Lopinavir / ritonavir (Kaletra®) (twice daily)**<br>• **Efavirenz (Sustiva®) only start if after 1st 8 weeks of pregnancy** |

### COMMENTS

**Abacavir and Abacavir / lamivudine**
- Should not be used in patients who test positive for HLA-B*5701

**Atazanavir:**
- Should not be used in patients who require >20mg omeprazole equivalent per day
- **Atazanavir (Reyataz®) boosted with ritonavir (Norvir®) and tenofovir / emtricitabine (Truvada®) is no longer a preferred regimen for naïve patients due to higher rates of discontinuation due to side effects compared to darunavir boosted with ritonavir and tenofovir/ emtricitabine**

**Cobicistat:**
- Should not be started in patients with a pretreatment estimated Clcr <70 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

**Darunavir:**
- 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

**Efavirenz:**
- Should not be used in the first 8 weeks of pregnancy or in women trying to conceive or not using effective and consistent contraception
- **Efavirenz / tenofovir / emtricitabine (Atripla®) is no longer a preferred regimen (now alternate) for naïve patients due to concerns regarding side effects (CNS) and possible association with suicidality**

**Elvitegravir / cobicistat / tenofovir / emtricitabine**
- Should not be started in patients with a pretreatment 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.

**Emtricitabine (Emtriva®)**
- May be substituted by **lamivudine (Epivir®)** and vise versa

**Lopinavir / Ritonavir:**
- Once-daily lopinavir / ritonavir is not recommended in pregnant women

**Rilpivirine / tenofovir / emtricitabine**
- Only for patients with pretreatment baseline HIV viral load <100,000 copies/mL and CD4 >200 cells/mL

**Tenofovir**
- Use with caution in patients with renal insufficiency

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 1, 2014. Available at https://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. March 28, 2014. Available at https://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf

## MONITORING HIV PATIENTS

| | | Pre Treatment | | On Treatment | | | | | | Post Treatment | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Test** | **Base-line** | Q 3–6 months[2] | Q year | Start-ing treat-ment | ~4 weeks after start | Q month | Q 3 months | Q 6 months[2] | Q year | If clini-cally indi-cated | At time of treat-ment failure |
| **Clinical evaluation**[1] | ✓ | ✓[2] | ✓ | ✓ | ✓ | ✓ | ✓ | ✓[2] | ✓ | ✓ | ✓ |
| **HIV antibody test** | ✓ | | | | | | | | | | |
| **CD4 count** | ✓ | ✓[2] | ✓ | | | ✓ | ✓ | ✓[2] | ✓ | ✓ | ✓ |
| **Quantitative HIV viral load** | ✓ | | | | | ✓[4] | ✓ | ✓[2] | | | ✓ |
| **HIV genotype** | ✓[3] | | | ✓[3] | | | | | | | ✓ |
| **HIV Tropism Test** | | | | | | | | | | | ✓[5] |
| **CBC with differential and PLT** | ✓ | ✓[2] | | ✓ | ✓[6] | | ✓ | ✓[2] | | ✓ | |
| **Comprehensive Metabolic Panel** | ✓ | ✓[2] | | ✓ | ✓ | | ✓ | ✓[2] | ✓ | ✓ | |
| **Fasting glucose** | ✓ | | ✓ | ✓ | | | | | ✓ | ✓ | |
| **Fasting Lipid Panel** | ✓ | | ✓ | ✓ | ✓[7] | | | | ✓ | ✓ | |
| **Urinalysis** | ✓ | | ✓ | ✓ | | | | ✓[8] | ✓ | | |
| **Rapid Plasma Reagin (RPR)** | ✓ | | ✓ | | | | | | ✓ | ✓ | |
| **Urine gonorrhea/chlamydia (NAAT)** | ✓ | | ✓ | | | | | | ✓ | ✓ | |
| **Trichomoniasis screen (women)** | ✓ | | | | | | | | | ✓ | |
| **Hepatitis A serology, hepatitis B sAg, cAb, sAb** | ✓ | | | | | | | | | ✓[10] | |
| **Hepatitis C Ab** | ✓ | | ✓[9] | | | | | | ✓[9] | ✓[9] | |
| **Varicella IgG** | ✓ | | | | | | | | | ✓[10] | |
| **Toxoplasmosis IgG** | ✓ | | ✓[9] | | | | | | ✓[9] | ✓[9] | |
| **Glucose-6-phosphate dehydrogenase (G6PD)** | ✓ | | | | | | | | | | |
| **HLA-B*5701** | ✓ | | | | | | | | | | |
| **PPD if not done in past twelve months and no history of positive PPD** | ✓ | | ✓ | | | | | | ✓ | ✓ | |
| **PA and lateral CXR if not in health record** | ✓ | | | | | | | | | ✓ | |

### Footnotes

1. Components of the clinical evaluation include:
   - ROS (fever, weight loss, cough, diarrhea, etc),
   - PE (vitals, oropharynx, lymph nodes, skin, etc),
   - Assessment: note CD4, viral load, HIV medication regimen,
   - Education: discuss risk reduction, adherence.
2. The HIV specialist may extend clinical follow up to every 6 months **ONLY IF**:
   - CD4 has been greater than 200 x 2 years;
   - housed at HIV designated institution;
   - adherent with HIV clinic visits;
   - no active OI or malignancy;
   - if on HIV medications, HIV viral load undetectable ≥ 2 years.
3. Obtain HIV genotype if no previous genotype is noted in the health record.
4. Obtain HIV viral load monthly after starting treatment until it is undetectable, then obtain every 3 months.
5. Only obtain tropism testing if considering maraviroc in next HIV regimen.
6. Follow CBC closely after starting treatment if the regimen contains AZT.
7. Obtain repeat lipid panel after starting treatment only for those combinations that might impact lipids.
8. UA every 6 months while on treatment if regimen contains tenofovir (Atripla, Complera, Stribild, Truvada, Viread)
9. Repeat serology if previously negative.
10. Repeat serology post vaccination if applicable.

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 1, 2014. Available at https://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf.

## 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.**

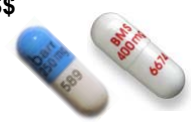
| Immunization Name | Dosage | Comments and Warnings |
|---|---|---|
| **Recommended for All HIV Positive Adults** | | |
| Hepatitis B Virus (HBV) | Three injections over a six month period | Recommended unless: 1. Already immune (Hepatitis BsAb positive), 2. Chronic active HBV (Hepatitis BsAg positive). Consider vaccination if isolated HBV cAb positive and HBV viral load negative. Check Hepatitis BsAb after completion of immunization series. Additional injections may be necessary if antibody levels are too low. |
| 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. |
| 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$^3$ when the vaccine is given, immunization should be repeated when CD4 count is > 200 cells/mm$^3$. 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. |
| **Recommended for Some HIV Positive Adults** | | |
| 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; 3 doses 4 weeks apart (stem cell recipients) | Can be used in those with functional or anatomical asplenia, sickle cell disease, undergoing elective splenectomy (administer 2 weeks prior to surgery) or recipient of hematopoietic stem cell transplant (administer 6-12 months after successful transplant) |
| 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 aged 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$^3$ or clinical symptoms of HIV should not get the MMR vaccine. Each component can be given separately if needed to achieve adequate antibody levels. |
| Meningococcus | 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 | Two injections over four to eight weeks | 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$^3$ or below. Not recommended to be given during pregnancy. |
| **Not Recommended for HIV Positive Adults** | | |
| 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 | | |
| Zoster | | |

*Recommended Adult Immunization Schedule - United States, 2015. Centers for Disease Control Website. Available at: http://www.cdc.gov/vaccines/schedules/easy-to-read/adult.html.

Aberg, J et al. Primary Care Guide lines for the Management of Persons Infected with HIV: 2013 Update by the HIV Medicine Association of the Infectious Diseases Society of America. Clin Infect Dis. cit665 first published online November 13, 2013

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 1, 2014. Available at https://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf.

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

| | | | |
|---|---|---|---|
| **All Classes** | • Current recommended minimum effective combination consists of three antiretroviral medications from a minimum of two classes. DO NOT PRESCRIBE AS MONOTHERAPY FOR HIV. If any medication is discontinued due to toxicity or other reason, discontinue combination.<br>• Monitor for hepatotoxicity; use with caution in patients coinfected with chronic hepatitis B or C or end stage liver disease.<br>• Multiple concerns regarding drug-drug interactions exist. See page 13 for more information. | | |
| **Nucleoside/ Nucleotide Reverse Transcriptase Inhibitors (NRTI)** | Many NRTIs are associated with:<br>• Hepatic steatosis<br>• 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<br>• Lipodystrophy | | |
| **Medication** | **Formulation** | **Side Effects** | **Special Notes** |
| **ABACAVIR (ZIAGEN®, ABC) $$$**  | Tablet: **300 mg**<br>Solution:<br>20 mg/ml | • Hypersensitivity reaction; potentially FATAL if rechallenged | • Hypersensitivity associated with positive HLA-B*5701: screen prior to initiation<br>• Hypersensitivity reaction: look for fever, rash, GI symptoms, cough, dyspnea, pharyngitis<br>• Adjust dose for hepatic dysfunction<br>• Avoid in treatment naïve patient if HIV viral load > 100,000 copies/ml |
| **DIDANOSINE (VIDEX®, ddI) $$$**  | Delayed release capsule:<br>200 mg, **250 mg**<br>**400 mg**<br>Powder for solution:<br>2 gm, 4 gm | • Peripheral neuropathy<br>• Pancreatitis<br>• Lactic acidosis– See above | • Weight based dosing<br>• Adjust dose for renal dysfunction<br>• Adjust dose if given with tenofovir<br>• Avoid in combination with stavudine<br>• Contraindicated with ribavirin<br>• Prolonged exposure associated with noncirrhotic portal hypertension with esophageal varices |
| **EMTRICITABINE (EMTRIVA®, FTC) $$$$$**  | Capsule: **200 mg** | • Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfected with chronic hepatitis B | • Active against chronic hepatitis B<br>• Dose adjustment for renal dysfunction<br>• Contraindicated for use with lamivudine |
| **LAMIVUDINE (EPIVIR®, 3TC) $$$**  | Tablet:<br>100 mg, **150 mg, 300 mg**<br>Solution:10mg/ml | • Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfected with chronic hepatitis B | • Active against chronic hepatitis B<br>• Adjust dose for renal dysfunction<br>• Contraindicated with emtricitabine |
| STAVUDINE (ZERIT®, D4T) $$$  | Capsule:<br>15 mg, 20 mg<br>30 mg, 40 mg | • Peripheral neuropathy<br>• Pancreatitis<br>• Lactic acidosis– See above<br>• Hyperlipidemia | • Weight based dosing<br>• Dose adjustment for renal dysfunction<br>• Avoid in combination with didanosine<br>• Contraindicated with zidovudine |
| **TENOFOVIR (VIREAD®, TDF) $$$$$**  | Tablet:<br>150 mg, 200 mg<br>250 mg, **300 mg**<br>Powder: 40mg/gm | • Severe acute exacerbation of chronic hepatitis B can occur with abrupt discontinuation in patients coinfected with chronic hepatitis B<br>• Renal impairment<br>• Fanconi's Syndrome<br>• Decreased bone mineral density | • Active against chronic hepatitis B<br>• Adjust dose for renal dysfunction<br>• Adjust dose if given in combination with didanosine and/or atazanavir |
| ZALCITABINE (HIVID®, ddC)  | No longer manufactured | | |
| **ZIDOVUDINE (RETROVIR®, AZT) $$$**  | Tablet: **300 mg**<br>Syrup: 50 mg/ml<br>Capsule: **100 mg** | • Bone marrow suppression<br>• Anemia (usually macrocytic)<br>• Myopathy<br>• Nausea | • Contraindicated for use with stavudine<br>• Caution in use with other agents that cause bone marrow suppression<br>• Adjust dose for renal dysfunction |

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**Bold = Formulary**

**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:<br>• 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<br>• Hyperlipidemia<br>• Cross class resistance; if history of prior NNRTI use and poor virologic response, consult HIV specialist prior to initiation of second NNRTI<br>• Long half life: consult HIV specialist if possible prior to discontinuation to avoid the emergence of resistant mutations<br>• Multiple concerns regarding drug-drug interactions. (See page 13 for more information) | | |
| **Medication** | **Formulation** | **Side Effects** | **Special Notes** |
| DELAVIRDINE (RESCRIPTOR®, DLV) $$$$$  | Tablet:<br>100 mg<br>200 mg | | • Not first line agent; rarely used |
| **EFAVIRENZ (SUSTIVA®, EFV) $$$$$**  | Tablet: **600 mg**<br>Capsule: 50 mg<br>200 mg | • CNS side effects: dizziness, bizarre dreams<br>• False positive with certain types of cannabinoid testing | • Potentially teratogenic especially in first trimester; category D: obtain pregnancy test prior to starting in women of child bearing potential.<br>• Avoid taking with a high fat meal<br>• Immediate evaluation is recommended for psychiatric symptoms such as severe depression or suicidal ideation |
| ETRAVIRINE (INTELENCE®, ETR) $$$$$  | Tablet: 25 mg<br>100 mg, 200 mg | • Hepatotoxicity<br>• Hypersensitivity reaction | |
| **NEVIRAPINE (VIRAMUNE®, NVP) $$$**  | Tablet: **200 mg**<br>Solution:<br>50 mg / 5ml<br>XR: 400 mg | • Hepatotoxicity<br>• 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. | • Avoid starting nevirapine in women with CD4 > 250 cells/mm$^3$ or men with CD4 > 400 cells/ mm$^3$. Once patients on NVP reach a CD4 cell count higher than these cut-offs, they are not required to discontinue unless otherwise indicated<br>• Dose escalation with initiation: 200 mg daily for two weeks, then 200 mg, one twice daily or two once daily |
| **RILPIVIRINE(EDURANT®, RPV) $$$$$**  | Tablet: **25 mg** | • Depression<br>• Insomnia<br>• Headache<br>• Rash | • Requires an acid environment for optimal absorption. Contraindicated for use with proton pump inhibitors; specific dosing recommendations for use with other acid lowering agents. Consult an HIV specialist or package insert for specifics<br>• Use with caution in patients with baseline HIV viral load > 100,000 copies/ml |
| **Protease Inhibitor (PI)** | Many PIs are associated with:<br>• Hyperlipidemia<br>• Hyperglycemia<br>• Lipodystrophy / fat redistribution<br>• Elevated transaminases | • GI intolerance: nausea, vomiting, diarrhea<br>• Hepatotoxicity especially in patients with underlying liver disease or coinfection with hepatitis B or C | • Increased bleeding in hemophiliacs<br>• Most PIs are prescribed in combination with ritonavir in order to achieve more optimal drug levels<br>• Multiple concerns regarding drug-drug interactions (See page 13 for more information) |
| **ATAZANAVIR(REYATAZ®, ATV) $$$$$**  | Capsule:<br>100 mg<br>150 mg<br>**200 mg**<br>**300 mg** | • Indirect hyperbilirubinemia: jaundice, scleral icterus rarely a cause for discontinuation<br>• PR prolongation<br>• Nephrolithiasis, cholelithiasis | • Requires an acid environment for optimal absorption; specific dosing recommendations for use with proton pump inhibitors, H2 blockers, antacids: Consult an HIV specialist or package insert for specifics<br>• Adjust dose for hepatic dysfunction<br>• Adjust dose if given with tenofovir |
| **DARUNAVIR(PREZISTA,® DRV) $$$$$**  | Tablet:<br>75 mg<br>**600 mg**<br>**800 mg** | • Rash; caution if sulfonamide allergy Stevens Johnson Syndrome has been reported<br>• Headache | • Should always be used with ritonavir<br>• Give ritonavir whenever Darunavir is prescribed |
| **FOSAMPRENAVIR (LEXIVA®, LEX) $$$$$**  | Tablet: **700 mg**<br>Suspension:<br>50 mg/ml | • Rash; caution if sulfonamide allergy<br>• Nephrolithiasis (rare) | • Dose adjustment for hepatic dysfunction |



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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 |
|---|---|---|---|
| **Protease Inhibitor (continued)** | | | |
| INDINAVIR (CRIXIVAN®, IND) $$$$$  | Capsule: 200 mg<br>400 mg | • Headache<br>• Asthenia; Metallic taste<br>• Alopecia<br>• Hemolytic anemia<br>• Thrombocytopenia<br>• Indirect hyperbilirubinemia<br>• Nephrolithiasis | • Dose adjustment for hepatic dysfunction |
| **LOPINAVIR/RITONAVIR (KALETRA®,LPV)** $$$$$  | Tablet:<br>**200mg-50 mg**<br>100mg-25 mg<br>Solution: 400 mg-100 mg / 5ml | • Asthenia<br>• PR and QT prolongation | • Coformulated with ritonavir |
| **NELFINAVIR (VIRACEPT®, NLF) $$$$$**  | Tablet: 250 mg<br>**625 mg**<br>Powder: 50 mg/gm | • Diarrhea | • Do not use with ritonavir |
| SAQUINAVIR (INVIRASE®, SQV) $$$$$  | Tablet: 500 mg<br>Capsule: 200 mg | • Headache<br>• PR and QT prolongation | • Requires coadministration of ritonavir<br>• Pretreatment EKG is recommended |
| SAQUINAVIR (FORTOVASE®, SGC)  | N/A | No longer manufactured | |
| TIPRANAVIR (APTIVUS® , TPV) $$$$$  | Capsule: 250 mg<br>Solution:<br>100 mg/ml | • Rash; caution if sulfonamide allergy<br>• Potentially fatal hepatotoxicity<br>• Intracranial hemorrhage | • Requires coadministration of ritonavir |
| **Integrase Strand Transfer Inhibitor (INSTI)** | | | |
| **DOLUTEGRAVIR (TIVICAY, DTG) $$$$$**  | Tablet: 50 mg | • Hypersensitivity reaction: rash, constitutional findings<br>• Diarrhea | |
| ELVITEGRAVIR (VITEKTA)  | Tablet: 85 mg<br>100 mg | • Diarrhea<br>• Headache<br>• Nausea | • Requires coadministration of ritonavir |
| **RALTEGRAVIR(ISENTRESS®, RAL) $$$$$**  | Tablet: **400 mg**<br>Chew: 25 mg<br>100 mg | • Asthenia<br>• Nausea<br>• Diarrhea<br>• Headache<br>• CPK elevation | |
| **Pharmacologic Boosters** | | | |
| **RITONAVIR (NORVIR®, RTV) $$$$$**  | Tablet: **100 mg**<br>Capsule: 100 mg<br>Solution: 80 mg/ml | • Paresthesia – circumoral and extremities<br>• Asthenia; taste perversion | • Full dose ritonavir poorly tolerated<br>• Refrigeration not required with tablet. |
| COBICISTAT (TYBOST) $$$$$  | Tablet: 150 mg | • Jaundice (studied with atazanavir)<br>• Nausea | • Avoid if Clcr<70 ml/min and in combination with tenofovir. |

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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 |
|---|---|---|---|
| **Fusion Inhibitor** | | | |
| ENFUVIRTIDE (FUZEON®, T20) $$$$$  | For injection: 90 mg / vial | • Injection site reactions<br>• Increased bacterial pneumonia<br>• Hypersensitivity reaction | • Subcutaneous injection twice daily |
| **CCR5 Inhibitor** | • **Only active against CCR5 tropic strains of HIV: must obtain tropism assay prior to initiation.**<br>• **Multiple concerns regarding drug-drug interactions exist. See page 13 for more information.** | | |
| MARAVIROC (SELZENTRY®, MVC) $$$$$  | Tablet: 150 mg<br>300 mg | • Abdominal pain<br>• Cough<br>• Dizziness<br>• Rash<br>• Hepatotoxicity<br>• Orthostatic hypotension | • Many drug-drug interactions; consult an HIV specialist, pharmacist or https://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf prior to initiation<br>• Tropism testing required prior to starting |
| **Coformulations** | | | |
| **ABACAVIR/ LAMIVUDINE EPZICOM® , EPZ)** $$$$$  | Tablet: **600 mg / 300mg** | See information regarding each individual component, listed above | See information regarding each individual component, listed above |
| DOLUTEGRAVIR/ABACAVIR/ LAMIVUDINE (TRIUMEQ®) $$$$$  | Tablet: 50 mg/ 600 mg/ 300 mg | See information regarding each individual component, listed above | See information regarding each individual component, listed above |
| **EFAVIRENZ/ EMTRICITABINE/ TENOFOVIR (ATRIPLA®) $$$$$**  | Tablet: **600 mg / 200 mg / 300 mg** | See information regarding each individual component, listed above | See information regarding each individual component, listed above |
| **COBICSTAT/ ELVITEGRAVIR/EMTRICITABINE/ TENOFOVIR (STRIBILD®, EVG/COBI/TDF/ FTC) $$$$$**  | Tablet: 150 mg / 150 mg/ 200 mg / 300 mg | See information regarding each individual component, listed above | • Many drug-drug interactions; consult an HIV specialist, pharmacist or https://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL.pdf prior to initiation<br>• See information regarding each individual component, listed above |
| **EMTRICITABINE/ RILPIVIRINE/ TENOFOVIR (COMPLERA®) $$$$$**  | Tablet: **200 mg / 25 mg /300 mg** | See information regarding each individual component, listed above | See information regarding each individual component, listed above |
| **TENOFOVIR/ EMTRICITABINE (TRUVADA®, TVD) $$$$$**  | Tablet: **200 mg / 300 mg** | See information regarding each individual component, listed above | See information regarding each individual component, listed above |
| LAMIVUDINE/ ZIDOVUDINE (COMBIVIR®, CMB) $$$$$  | Tablet: 150 mg / 300 mg | See information regarding each individual component, listed above | See information regarding each individual component, listed above |
| ABACAVIR/ LAMIVUDINE/ ZIDOVUDINE (TRIZIVIR®, TZV) $$$$$  | Tablet: 300 mg / 150 mg / 300 mg | See information regarding each individual component, listed above | See information regarding each individual component, listed above |

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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 CDCR CPHCS HIV Questions@cdcr.ca.gov prior to discontinuing prophylaxis | | |
|---|---|---|---|
| **Medication** | **Formulation** | **Side Effects** | **Special Notes** |
| **PNEUMOCYSTIS JIROVECI (PCP) PROPHYLAXIS: START IF CD4 < 200 CELLS/MM$^3$, CD4 % <14% OR THE PRESENCE OF ORAL CANDIDIASIS** | | | |
| **TRIMETHOPRIM-SULFAMETHOXAZOLE (TMP-SMX, BACTRIM DS®, SEPTRA DS®) $** | **Tablet: 160 mg/ 800 mg** | • Rash, Stevens Johnson Syndrome<br>• Hematologic abnormalities | • Dose adjustment for renal dysfunction<br>• Use with caution if G6PD deficient (rare) |
| **DAPSONE $**  | Tablet: 25 mg **100 mg** | • Rash, hypersensitivity reaction<br>• Hematologic abnormalities<br>• Hemolytic anemia (G6PD related)<br>• Neuropathy | • Contraindicated in G6PD deficiency |
| ATOVAQUONE (MEPRON®) $$$$$  | Suspension: 750 mg / 5 ml | • Rash<br>• GI intolerance | |
| **PENTAMIDINE (PENTAM®) $$$$**  | Injection: **300 mg** | • Rash<br>• Renal impairment<br>• Bronchospasm<br>• Arrhythmia<br>• Hematologic abnormalities | • Given via nebulizer for prophylaxis<br>• Dose adjustment for renal dysfunction |
| **TOXOPLASMA GONDII PROPHYLAXIS: START IF CD4 < 100 CELLS/MM$^3$ AND PATIENT HAS POSITIVE TOXO IGG** | | | |
| **TRIMETHOPRIM SULFAMETHOXAZOLE (TMP-SMX, BACTRIM DS®, SEPTRA DS)**  | Tablet: **160 mg / 800 mg** | See above Pneumocystis jiroveci (PCP) prophylaxis section | |
| **PYRIMETHAMINE (DARAPRIM®) $$$$**  | Tablet: **25 mg** | • See above Pneumocystis jiroveci (PCP) prophylaxis section<br>• Hemolytic anemia (G6PD related) | |
| **MYCOBACTERIUM AVIUM COMPLEX (MAC) PROPHYLAXIS: START IF CD4 <50 CELLS/MM$^3$** | | | |
| **AZITHROMYCIN (ZITHROMAX®) $$**  | Tablet: **250 mg** **500 mg** **600 mg** | • Rash<br>• Diarrhea<br>• Nausea<br>• Abdominal pain | |
| **CLARITHROMYCIN (BIAXIN®)**  | Tablet: **250 mg** **500 mg** | • Rash<br>• Diarrhea<br>• Nausea<br>• Abdominal pain<br>• Pseudomembranous colitis | |

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### 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**
- **https://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf**

or contact the CCHCS HIV warmline at CDCR CPHCS HIV Questions@cdcr.ca.gov

# 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.

*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

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.

## MEDICATION IDENTIFICATION GUIDE

| | | | | |
|---|---|---|---|---|
| **NUCLEOSIDE/ NUCLEOTIDE REVERSE TRANSCRIPTASE INHIBITORS (NRTI)** | ☐ ABACAVIR (ZIAGEN, ABC)  | ☐ DIDANOSINE (VIDEX, DDI)  | ☐ EMTRICITABINE (EMTRIVA, FTC)  | ☐ LAMIVUDINE (EPIVIR, 3TC)  |
| | ☐ STAVUDINE (ZERIT, D4T)  | ☐ TENOFOVIR (VIREAD, TDF)  | ☐ ZIDOVUDINE (RETROVIR, AZT)  | |
| **NON-NUCLEOSIDE REVERSE TRANSCIPTASE INHIBITORS (NNRTI)** | ☐ DELAVIRDINE (RESCRIPTOR DLV)  | ☐ EFAVIRENZ (SUSTIVA/EFV)  | ☐ ETRAVIRINE (INTELENCE, ETR)  | ☐ NEVIRAPINE (VIRAMUNE, NVP)  |
| | ☐ RILPIVIRINE (EDURANT, RPV)  | | | |
| **PROTEASE INHIBITOR (PI)** | ☐ ATAZANAVIR (REYATAZ, ATV)  | ☐ DARUNAVIR (PREZISTA, DRV)  | ☐ FOSAMPRENAVIR (LEXIVA, LEX)  | ☐ INDINAVIR (CRIXIVAN, IND)  |
| | ☐ KALETRA (LOPINAVIR/ RITONAVIR LPV)  | ☐ NELFINAVIR (VIRACEPT, NLF)  | ☐ SAQUINAVIR (INVIRASE, SQV)  | ☐ TIPRANAVIR (APTIVUS, TPV)  |
| **INTEGRASE INHIBITOR (INSTI)** | ☐ DOLUTEGRAVIR (TIVICAY, DTG)  | ☐ ELVITEGRAVIR (VITEKTA)  | ☐ RALTEGRAVIR (ISENTRESS, RAL)  | |
| **PHARMACOKINETIC BOOSTERS** | ☐ RITONAVIR (NORVIR, RTV)  | ☐ COBICISTAT (TYBOST)  | | |
| **COFORMULATIONS** | ☐ ABACAVIR/LAMIVUDINE (EPZICOM, EPZ)  | ☐ DOLUTEGRAVIR/ ABACAVIR/LAMIVUDINE (TRIUMEQ)  | ☐ EFAVIRENZ/TENOFOVIR/ EMTRICITABINE (ATRIPLA)  | ☐ ELVITEGRAVIR/ COBICISTAT/ EMTRICITABINE/TENOFOVIR (STRIBILD)  |
| | ☐ RILPIVIRINE/ TENOFOVIR/ EMTRICITABINE (COMPLERA)  | ☐ TENOFOVIR/ EMTRICITABINE (TRUVADA, TVD)  | ☐ ZIDOVUDINE / LAMIVUDINE / ABACAVIR RIZIVIR, TZV)  | ☐ ZIDOVUDINE / LAMIVUDINE (COMBIVIR, CMB)  |
| **OTHER** | ☐ ENFUVIRTIDE (FUZEON, T20)  | ☐ MARAVIROC (SELZENTRY, MVC)  | | |

# 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.

*La actividad sexual y el uso de jeringas con propósitos no autorizados es ilegal dentro del Departamento Correccional y de Rehabilitación de California y podrán dar lugar acciones judiciales.*

### 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

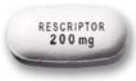
Especialmente si presenta alguno de los siguientes:

- 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 medicina 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.

# GUÍA DE IDENTIFICACIÓN DE MEDICAMENTOS

| | | | | |
|---|---|---|---|---|
| **INHIBIDORES NUCLEOSÍDICOS / NUCLEÓTIDOS DE LA RETROTRANSCRIPTASA** | ☐ ABACAVIR (ZIAGEN, ABC)  | ☐ DIDANOSINE (VIDEX, DDI)  | ☐ EMTRICITABINE (EMTRIVA, FTC)  | ☐ LAMIVUDINE (EPIVIR, 3TC)  |
| | ☐ STAVUDINE (ZERIT, D4T)  | ☐ TENOFOVIR (VIREAD, TDF)  | ☐ ZIDOVUDINE (RETROVIR, AZT)  | |
| **INHIBIDORES NO NUCLEÓSIDOS DE LA TRANSCRIPTASA REVERSA (NNRTI)** | ☐ DELAVIRDINE (RESCRIPTOR DLV)  | ☐ EFAVIRENZ (SUSTIVA/EFV)  | ☐ ETRAVIRINE (INTELENCE, ETR)  | ☐ NEVIRAPINE (VIRAMUNE, NVP)  |
| | ☐ RILPIVIRINE (EDURANT, RPV)  | | | |
| **INHIBIDORES DE LA PROTEASA (PI)** | ATAZANAVIR (REYATAZ, ATV)  | DARUNAVIR (PREZISTA, DRV)  | ☐ FOSAMPRENAVIR (LEXIVA, LEX)  | INDINAVIR (CRIXIVAN, IND)  |
| | ☐ KALETRA (LOPINAVIR/ RITONAVIR LPV)  | ☐ NELFINAVIR (VIRACEPT, NLF)  | ☐ SAQUINAVIR (INVIRASE, SQV)  | ☐ TIPRANAVIR (APTIVUS, TPV)  |
| **INHIBIDORES DE LA INTEGRASA (INSTI)** | ☐ DOLUTEGRAVIR (TIVICAY, DTG)  | ELVITEGRAVIR (VITEKTA)  | ☐ RALTEGRAVIR (ISENTRESS, RAL)  | |
| **POTENCIADOR FARMACOCINÉTICO** | ☐ RITONAVIR (NORVIR, RTV)  | ☐ COBICISTAT (TYBOST)  | | |
| **COFORMULADOS** | ☐ ABACAVIR/LAMIVUDINE (EPZICOM, EPZ)  | ☐ DOLUTEGRAVIR/ ABACAVIR/LAMIVUDINE (TRIUMEQ)  | ☐ EFAVIRENZ/TENOFOVIR/ EMTRICITABINE (ATRIPLA)  | ☐ ELVITEGRAVIR/ COBICISTAT/ EMTRICITABINE/TENOFOVIR (STRIBILD)  |
| | ☐ RILPIVIRINE/ TENOFOVIR/ EMTRICITABINE (COMPLERA)  | ☐ TENOFOVIR/ EMTRICITABINE (TRUVADA, TVD)  | ☐ ZIDOVUDINE / LAMIVUDINE / ABACAVIR TRIZIVIR, TZV)  | ☐ ZIDOVUDINE / LAMIVUDINE (COMBIVIR, CMB)  |
| **OTROS** | ☐ ENFUVIRTIDE (FUZEON, T20)  | ☐ MARAVIROC (SELZENTRY, MVC)  | | |