HIV CLINICAL RESOURCE ▪ ¼-FOLDED GUIDE

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DIAGNOSIS AND MANAGEMENT OF HIV-2 IN ADULTS

NYSDOH AIDS INSTITUTE HIV CLINICAL GUIDELINE JANUARY 2026

ALL RECOMMENDATIONS *Please see full guideline for additional information* P.1

Diagnosis of HIV-2

- To diagnose HIV-2 infection, clinicians should follow the standard HIV laboratory testing algorithm. (A1)
- In individuals who are confirmed to have HIV-2 antibodies, clinicians should perform a clinical evaluation for HIV-2 infection that is similar in scope to the evaluation of patients with HIV-1. (A1)

Treatment of HIV-2

- Clinicians should recommend ART for all individuals diagnosed with HIV-2. (A2†)
- Before initiating ART in patients with HIV-2, clinicians should perform all of the standard laboratory testing recommended for patients with HIV-1 except for HIV drug resistance testing, which is not available. (A3)
  - Testing includes CD4 count, HIV-2 viral load, CrCl, and status of coinfections such as hepatitis B and C viruses and tuberculosis.
- Clinicians should not prescribe any NNRTI for the treatment of HIV-2 infection, including long-acting injectable RPV in combination with CAB. (A*)
- Clinicians should recommend a single-tablet regimen that includes 2 NRTIs plus an INSTI as the initial treatment for adults with HIV-2, including those with acute HIV-2 infection (see reverse side for preferred and alternative ART regimens and ART regimens preferred during pregnancy). (A2)
- For individuals with HIV-1/HIV-2 coinfection, clinicians should:
  - Perform HIV-1 drug resistance testing to guide the choice of an initial regimen or to modify a regimen if virologic failure develops. (A2)
  - Recommend an ART regimen that will suppress both viruses effectively. (A*)

Continued on P.2 ➔

ALL RECOMMENDATIONS *(continued from P.1)* P.2

Monitoring ART

- Clinicians should monitor the virologic and immunologic status of patients with HIV-2 by performing viral load and CD4 count testing at the same intervals recommended for patients with HIV-1.
  - Because HIV-2 viral load testing is available in New York State only through the Wadsworth Center, clinicians who do not have access to Wadsworth Center laboratory testing services should refer patients to practices that do. (A3)
  - Clinicians should continue to monitor CD4 count every 6 months in all patients with HIV-2, even those with persistent viral suppression. (B2)
- If HIV-2 viral load testing is not available, clinicians should suspect treatment failure if patients experience a sustained decrease in CD4 count, defined as a 30% decrease in CD4 count or a 3-point decrease in CD4%, confirmed by repeat testing (B2), or have clinical disease progression. (A2)
- If patients with HIV-2 have either virologic or immunologic treatment failure, clinicians should consult with an experienced HIV-2 clinical management specialist. (A3) Contact the NYSDOH CEI Clinician Line, by website or phone: 866-637-2342 (press 2) to consult with an expert clinician.

Management of HIV-2 in Pregnancy

- Clinicians should recommend ART for all pregnant individuals with HIV-2. (A2†)
  - Clinicians should recommend one of the ART regimens on reverse side. (A3)
  - Clinicians should not delay ART initiation in pregnant individuals even if there is no or limited access to HIV-2 viral load testing. (A2†)
  - If a patient is already on an effective ART regimen that is active against HIV-2 at the time of pregnancy, clinicians should continue the ART regimen with monitoring. (A3)
- In selecting an ART regimen for a pregnant individual with HIV-2, clinicians should **not** include:
  - Boosted ATV, because of its lack of efficacy against HIV-2 (A*)
  - EFV and RPV, the NNRTIs recommended for treatment of HIV-1 during pregnancy, because of a lack of efficacy against HIV-2 (A*)
  - EVG/COBI and DRV/COBI, because of the potential for lower levels of drug exposure during the third trimester (A*)

PEP for HIV-2

- Clinicians should recommend TAF/FTC/BIC as PEP after HIV-2 exposure. (A2†)
  - TAF/FTC or TDF/FTC and either DTG or RAL can be used instead of TAF/FTC/BIC in a PEP regimen (3TC may be substituted for FTC). (A3)

Wadsworth Center Bloodborne Viruses Laboratory

- The NYSDOH Wadsworth Center Bloodborne Viruses Laboratory offers HIV-2 testing, free of charge, for patients and healthcare providers in New York State. To submit a specimen for HIV-2 viral load testing, please contact the Bloodborne Viruses Laboratory at 518-474-2163. Specific services include:
  - Quantitative and qualitative HIV-2 viral load testing, and quantitative detection of HIV-2 RNA in plasma samples for baseline and subsequent monitoring of response to ART in patients with confirmed HIV-2 infection
  - HIV-2 RNA viral load testing during pregnancy: Contact the lab early in the patient's pregnancy to discuss the protocol and timing for testing.
  - HIV testing for all newborns exposed to HIV (HIV-1 and HIV-2) in New York State, free of charge. If the person submitting the sample indicates that the newborn has been exposed to HIV-2, Pediatric HIV Testing (518-486-9605) will perform a reverse transcription polymerase chain reaction test for qualitative detection of HIV-2 RNA in all samples.
- HIV-2 phenotypic and genotypic resistance testing is not offered at the Wadsworth Center or commercially available in the United States.

KEY POINTS

- If a PI is being considered as part of an ART regimen for HIV-2 treatment, boosted DRV is preferred.
- ATV should not be used because of its lack of potency in vitro against HIV-2.
- The following ARVs do not have activity against HIV-2: all NNRTIs, certain PIs (ATV, FPV, TPV, and NFV), and attachment inhibitor FTR.
- In New York State, the standard of care for individuals with HIV-2 is to initiate and maintain ART to achieve an undetectable HIV-2 viral load.

DRUG NAME ABBREVIATION KEY:

3TC, lamivudine; ABC, abacavir; ATV, atazanavir; BIC, bictegravir; CAB, cabotegravir; COBI, cobicistat; DRV, darunavir; DTG; dolutegravir; EFV, efavirenz; EVG, elvitegravir; FPV, fosamprenavir; FTC, emtricitabine; FTR, fostemsavir; NFV, nelfinavir; RAL, raltegravir; RPV, rilpivirine; RTV, ritonavir; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; TPV, tipranavir.

OTHER ABBREVIATIONS:

Al, aluminum; ARV, antiretroviral; ART, antiretroviral therapy; Ca, calcium; CEI, Clinical Education Initiative; CrCl, creatinine clearance; INSTI, integrase strand transfer inhibitor; Mg, magnesium; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; PEP, post-exposure prophylaxis; PI, protease inhibitor; PrEP, pre-exposure prophylaxis.

← Use this code with your phone's QR code reader to go directly to a mobile-friendly version of the guideline.

▪ This ¼-Folded Guide is a companion to the New York State Department of Health AIDS Institute guideline *Diagnosis and Management of HIV-2 in Adults*. The full guideline is available at www.hivguidelines.org.

Preferred ART Regimens for Initial Treatment of Nonpregnant Adults With HIV-2

Regimen	Comments	Rating
Available as a Single-Tablet Formulation		
TAF 25 mg/ FTC/BIC (Biktarvy)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · Mg- or Al-containing antacids may be taken 2 hours before or 6 hours after BIC; Ca-containing antacids or iron supplements may be taken simultaneously if taken with food.	A2
Available as a Multi-Tablet Regimen		
TAF 25 mg/FTC or TDF 300 mg/ FTC *and* DTG (Descovy or Truvada *and* Tivicay)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · TAF/FTC is strongly preferred over TDF/FTC in patients with CrCl <50 mL/min. · For TDF/FTC in patients with CrCl 30-49 mL/min: 1 tablet every 48 hours. · For TDF/FTC, consider bone mineral density. · Documented DTG resistance after initiation in treatment-naive patients is rare. · Mg- or Al-containing antacids may be taken 2 hours before or 6 hours after DTG; Ca-containing antacids or iron supplements may be taken simultaneously if taken with food.	A2

ART Regimens for Initial Treatment of Pregnant Adults With HIV-2

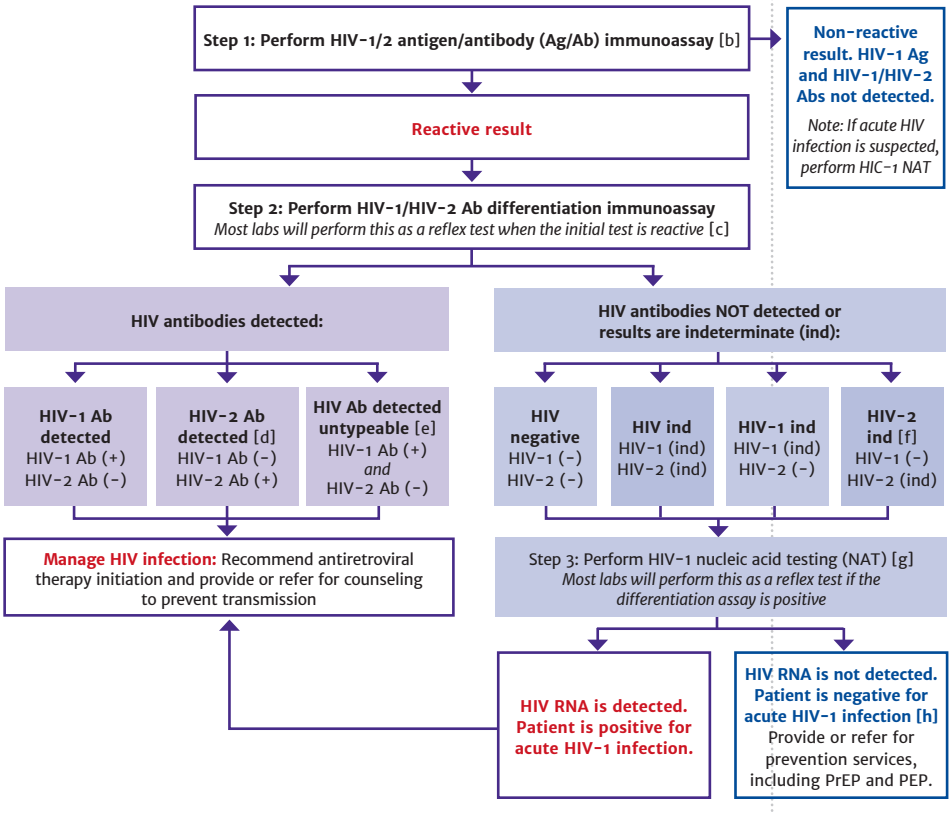
Regimen			Rating
Preferred			
TAF/FTC/BIC (Biktarvy)			A3
TAF/FTC (Descovy) **OR** TDF/FTC (Truvada) **OR** TDF/3TC (multiple brands)	**AND**	DTG (Tivicay)	A3
Alternative			
TAF/FTC (Descovy) **OR** TDF/FTC (Truvada) **OR** TDF/3TC (multiple brands)	**AND**	DRV/RTV (Prezista and Norvir) **OR** RAL (Isentress)	B3

Alternative ART Regimens for Initial Treatment of Nonpregnant Adults With HIV-2

Regimen	Comments	Rating
Available as a Single-Tablet Formulation		
TAF 10 mg/ FTC/DRV/COBI (Symtuza)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · Carefully consider drug-drug interactions with COBI.	B2
TAF 10 mg/ FTC/EVG/COBI (Genvoya)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · Carefully consider drug-drug interactions with COBI. · Separate dosing of Al-, Ca-, and Mg-containing antacids by 2 hours, either before or after EVG.	B2
Available as a Multi-Tablet Regimen		
TAF 25 mg/ FTC or TDF 300 mg/FTC *and* RAL HD (Descovy or Truvada *and* Isentress HD)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · TAF/FTC is strongly preferred over TDF/FTC in patients with CrCl <50 mL/min. · For TDF/FTC in patients with CrCl 30-49 mL/min: 1 tablet every 48 hours. · For TDF/FTC, consider bone mineral density. · Administer as TAF/FTC or TDF/FTC once daily and RAL HD 1,200 mg once daily, dosed as two 600 mg HD tablets. · To date, no clinical trials have been conducted with TAF and RAL; data are based on bioequivalence pharmacokinetic studies. · Mg- or Al-containing antacids are contraindicated; coadministration of Ca-containing antacids is not recommended with RAL HD.	B2
TAF 25 mg/FTC or TDF 300 mg/FTC *and* RAL (Descovy or Truvada *and* Isentress)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · TAF/FTC is strongly preferred over TDF/FTC in patients with CrCl <50 mL/min. · For TDF/FTC in patients with CrCl 30-49 mL/min: 1 tablet every 48 hours. · For TDF/FTC, consider bone mineral density. · Administer as TAF/FTC or TDF/FTC once daily and RAL 400 mg twice daily. · Mg- or Al-containing antacids are contraindicated; Ca-containing antacids are acceptable with RAL.	B2
TAF 25 mg/FTC or TDF 300 mg/ FTC *and* DRV 800 mg and RTV 100 mg (Descovy or Truvada *and* Prezista and Norvir)	· Do not initiate a tenofovir-based regimen in patients with CrCl <30 mL/min. · TAF/FTC is strongly preferred over TDF/FTC in patients with CrCl <50 mL/min. · For TDF/FTC in patients with CrCl 30-49 mL/min: 1 tablet every 48 hours. · For TDF/FTC, consider bone mineral density.	B2

Note: If a patient acquires HIV-2 while receiving long-acting injectable cabotegravir for PrEP, the initial regimen should be non-INSTI-based (e.g., a boosted PI and 2 NRTIs).

FIGURE: HIV Laboratory Testing Algorithm [a]



Abbreviations: Ab, antibody; Ag, antigen; APHL, Association of Public Health Laboratories; CDC, Centers for Disease Control and Prevention; ind, indeterminate; FDA, U.S. Food and Drug Administration; NAT, nucleic acid test; NYSDOH, New York State Department of Health; PEP, post-exposure prophylaxis; PrEP, pre-exposure prophylaxis.

Notes:

a. Adapted from CDC *2018 Quick reference guide: Recommended laboratory HIV testing algorithm for serum or plasma specimens* and *APHL Suggested reporting language for the HIV laboratory diagnostic testing algorithm*.
b. APHL and CDC continue to recommend that laboratories use an FDA-approved instrumented HIV-1/HIV-2 Ag/Ab immunoassay as the initial assay in the laboratory HIV testing algorithm for serum or plasma due to their superior sensitivity for detecting acute HIV infection. However, the FDA-approved single-use rapid HIV-1/HIV-2 Ag/Ab immunoassay may be used as the initial assay in the laboratory HIV testing algorithm for serum or plasma if an instrumented assay is not available.
c. Become familiar with the laboratory's internal testing algorithm and results-reporting policies. Many labs will reflex additional screening steps (such as HIV Ab differentiation immunoassay and HIV RNA) on the original sample without supplemental orders. Other labs may require additional samples or supplemental orders to complete all steps in the algorithm.
d. This includes specimens reported as HIV-2 positive with HIV-1 cross-reactivity.
e. Further testing may be performed to determine type.
f. Per the Geenius package insert, specimens with this final assay interpretation should be retested with a new cartridge. If the final assay interpretation is again HIV-2 indeterminate, it should be reported as such and followed with an HIV-1 NAT.
g. Most laboratories reflex directly to an HIV-1 RNA test without requiring an additional test order or new specimen, either by performing the test in-house or referring the specimen to another laboratory. If the laboratory is unable to or does not automatically reflex directly to the RNA test, clinicians should order an HIV-1 RNA test as soon as possible. To reflex directly to an HIV-1 RNA test, a test kit approved by either the FDA or NYSDOH to aid in diagnosing HIV-1 infection is required. If HIV-1 RNA is detected, acute HIV-1 is present, and clinicians should proceed with clinical evaluation. If no HIV-1 RNA is detected, the initial immunoassay result is presumed false positive.
h. A negative HIV-1 NAT result and repeatedly HIV-2 indeterminate or HIV indeterminate antibody differentiation immunoassay result should be referred for testing with a different validated supplemental HIV-2 test (antibody test or NAT) if available. Alternatively, redraw and repeat algorithm in 2 to 4 weeks to assess HIV-2 infection.