If a conflict arises between a Clinical Payment and Coding Policy and any plan document under which a member is entitled to Covered Services, the plan document will govern. If a conflict arises between a CPCP and any provider contract pursuant to which a provider participates in and/or provides Covered Services to eligible member(s) and/or plans, the provider contract will govern. “Plan documents” include, but are not limited to, Certificates of Health Care Benefits, benefit booklets, Summary Plan Descriptions, and other coverage documents. Blue Cross and Blue Shield of TX may use reasonable discretion interpreting and applying this policy to services being delivered in a particular case. Blue Cross and Blue Shield of TX has full and final discretionary authority for their interpretation and application to the extent provided under any applicable plan documents.

Providers are responsible for submission of accurate documentation of services performed. Providers are expected to submit claims for services rendered using valid code combinations from Health Insurance Portability and Accountability Act approved code sets. Claims should be coded appropriately according to industry standard coding guidelines including, but not limited to: Uniform Billing Editor, American Medical Association, Current Procedural Terminology, CPT® Assistant, Healthcare Common Procedure Coding System, ICD-10 CM and PCS, National Drug Codes, Diagnosis Related Group guidelines, Centers for Medicare and Medicaid Services National Correct Coding Initiative Policy Manual, CCI table edits and other CMS guidelines.

Claims are subject to the code edit protocols for services/procedures billed. Claim submissions are subject to claim review including but not limited to, any terms of benefit coverage, provider contract language, medical policies, clinical payment and coding policies as well as coding software logic. Upon request, the provider is urged to submit any additional documentation.

Human Immunodeficiency Virus (HIV)

Policy Number: CPCPLAB065

Version 1.0

Approval Date: Sept. 13, 2024

Plan Effective Date: Jan. 1, 2025 (Blue Cross and Blue Shield of Texas Only)

Description

The plan has implemented certain lab management reimbursement criteria. Not all requirements apply to each product.

Providers are urged to review Plan documents for eligible coverage for services rendered.

Reimbursement Information:

1. For individuals 11 to 65 years of age, initial screening for HIV infection **may be reimbursable.**

2. For individuals 11 to 65 years of age, repeat screening for HIV infection (no less than 90 days after initial screening) **may be reimbursable.**

3. Annual screening for HIV infection **may be reimbursable** for individuals considered at high risk, including:
    a. Men who have sex with men (MSM);
    b. Injection drug-users;
    c. Individuals with multiple sex partners;
    d. Individuals who have sex for drugs or money;
    e. Individuals who have sex with someone who is HIV-positive or has other sexually transmitted infections;
    f. Having sex without the use of a condom.

4. HIV genotyping or phenotyping **may be reimbursable** for **any** of the following situations:
    a. Prior to initiating doravirine therapy (genotyping and phenotyping is **required**).
    b. For individuals who have failed a course of antiviral therapy.
    c. For individuals who have suboptimal viral load reduction.
    d. For individuals who have been noncompliant with therapy.
    e. To guide treatment decisions in individuals with acute or recent infection (within the last 6 months).
    f. For antiretroviral naïve individuals entering treatment.
    g. For all HIV-infected pregnant individuals in the following situations:
        i. Before initiation of antiretroviral therapy;
        ii. For those with detectable HIV RNA loads.

5. For treatment-experienced individuals on failing regimens who are thought to have multidrug resistance, HIV phenotyping **may be reimbursable.**

6. When the risk of HIV infection is significant, and the initiation of therapy is anticipated, a baseline HIV quantification **may be reimbursable** in **any** of the following situations:
    a. In an at-risk individual with persistence of borderline or equivocal serologic reactivity

b. In an at-risk individual with signs and symptoms of acute retroviral syndrome (characterized by fever, malaise, lymphadenopathy, and rash).

7. Plasma quantification of HIV-1 RNA or HIV-2 RNA (see **Note 1**) **may be reimbursable** in **any** of the following situations:
   a. For monitoring disease progression in HIV-infected individuals;
   b. For monitoring response to antiretroviral therapy;
   c. For infants younger than 18 months born to HIV-positive mothers (antibody tests may be confounded by maternal antibodies in this time frame);
   d. For predicting maternal-fetal transmission of HIV-1 or HIV-2.

8. Routine use of combined genotyping and phenotyping **is not reimbursable.**

9. Drug susceptibility phenotype prediction using genotypic comparison to known genotypic/phenotypic database **is not reimbursable.**

Note 1: Because differences in absolute HIV copy number are known to occur using different assays, plasma HIV RNA levels should be measured by the same analytical method. A change in assay method may necessitate re-establishment of a baseline.

Procedure Codes

The following is not an all-encompassing code list. The inclusion of a code does not guarantee it is a covered service or eligible for reimbursement.

Codes
86689, 86701, 86702, 86703, 87389, 87390, 87391, 87534, 87535, 87536, 87537, 87538, 87539, 87806, 87900, 87901, 87903, 87904, 87906, 0219U, G0432, G0433, G0435, G0475, S3645

References:

AAP. (2023). *Bright Futures/AAP Recommendations for Preventive Pediatric Health Care (Periodicity Schedule)*. https://www.aap.org/periodicityschedule

ACOG. (2014). ACOG Committee Opinion no 596: Committee on Gynecologic Practice: Routine human immunodeficiency virus screening. *Obstet Gynecol*, *123*(5), 1137-1139. https://doi.org/10.1097/01.AOG.0000446828.64137.50

ACOG. (2018). ACOG Committee Opinion No. 751: Labor and Delivery Management of Women With Human Immunodeficiency Virus Infection. *Obstet Gynecol*, *132*(3), e131-e137. https://doi.org/10.1097/aog.0000000000002820

ATCC. (2014). *ATCC Teams with CDC and Thermo Fisher Scientific on Public Health RT-PCR Assay*. https://www.labbulletin.com/articles/ATCC-Teams-CDC-Thermo-Fisher-Scientific-Public-Health-RT-PCR-Assay/categories/20130120_11

Avram, C. M., Greiner, K. S., Tilden, E., & Caughey, A. B. (2019). Point-of-care HIV viral load in pregnant women without prenatal care: a cost-effectiveness analysis. *Am J Obstet Gynecol*, *221*(3), 265.e261-265.e269. https://doi.org/10.1016/j.ajog.2019.06.021

BHIVA. (2019). *BHIVA guidelines for the routine investigation and monitoring of adult HIV-1-positive individuals (2019 interim update)*. Retrieved 12/3/20 from https://www.bhiva.org/file/DqZbRxfzlYtLg/Monitoring-Guidelines.pdf

BHIVA. (2021). British HIV Association guidelines for the management of HIV-2 2021. https://www.bhiva.org/file/615ee3de98539/BHIVA-guidelines-for-the-management-of-HIV-2.pdf

Braun, P., Glass, A., Maree, L., Krügel, M., Pacenti, M., Onelia, F., Gunson, R., Goldstein, E., Martínez-García, L., Galán, J. C., Vilas, A., D'Costa, J., Sameer, R., Ehret, R., Knechten, H., Naeth, G., Bouvier-Alias, M., Marlowe, N., Palm, M. J., . . . Obermeier, M. (2020). Multicenter clinical comparative evaluation of Alinity m HIV-1 assay performance. *J Clin Virol*, *129*, 104530. https://doi.org/10.1016/j.jcv.2020.104530

BusinessWire. (2020). Aptima HIV-1 Quant Dx Assay Receives Additional FDA Approval for Use as an Aid in the Diagnosis of HIV Infection. https://www.businesswire.com/news/home/20201120005242/en/

Caliendo, A. (2022, March 12). *Techniques and interpretation of HIV-1 RNA quantitation*. https://www.uptodate.com/contents/techniques-and-interpretation-of-hiv-1-rna-quantitation

CDC. (2014). Revised surveillance case definition for HIV infection--United States, 2014. *MMWR Recomm Rep*, *63*(Rr-03), 1-10. https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6303a1.htm

CDC. (2020). HIV Preventative Services Coverage. https://www.cdc.gov/nchhstp/highqualitycare/preventiveservices/hivaids.html

CDC. (2021, September 21, 2021). *HIV Treatment and Care*. Retrieved 2/11/2021 from https://www.cdc.gov/hiv/clinicians/treatment/treatment-clinicians.html

Coffin, J., & Swanstrom, R. (2013). HIV Pathogenesis: Dynamics and Genetics of Viral Populations and Infected Cells. In *Cold Spring Harb Perspect Med* (Vol. 3). https://doi.org/10.1101/cshperspect.a012526

DHHS. (2023a). *Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV*. https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/adult-adolescent-arv/guidelines-adult-adolescent-arv.pdf

DHHS. (2023b, April 11, 2022). *Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection*. https://clinicalinfo.hiv.gov/en/guidelines/pediatric-arv/whats-new-guidelines

DHHS. (2023c, March 17, 2022). *Recommendations for the Use of Antiretroviral Drugs in Pregnant Women with HIV Infection and Interventions to Reduce Perinatal HIV Transmission in the United States*. https://clinicalinfo.hiv.gov/en/guidelines/perinatal/whats-new-guidelines

EACS. (2022). *European AIDS Clinical Society Guidelines Version 11.1 October 2022*. https://www.eacsociety.org/media/guidelines-11.1_final_09-10.pdf

Ehret, R., Harb, K., Breuer, S., & Obermeier, M. (2022). Performance assessment of the new Xpert® HIV-1 viral load XC assay for quantification of HIV-1 viral loads. *J Clin Virol*, *149*, 105127. https://doi.org/10.1016/j.jcv.2022.105127

FDA. (2007a). *Abbott RealTime HIV-1* https://www.fda.gov/media/73278/download

FDA. (2007b). *COBAS® AmpliPrep/COBAS® TaqMan® HIV-1 Test, Summary of Safety and Effectiveness* https://www.fda.gov/media/73824/download

FDA. (2015). *BioPlex 2200 HIV Ag-Ab Assay*. https://www.fda.gov/media/92862/download

FDA. (2019). *Geenius™ HIV 1/2 Supplemental Assay*. https://www.fda.gov/media/130312/download

FDA. (2020). *Aptima® HIV-1 Quant Dx Assay*. Retrieved 1/22/2021 from https://www.fda.gov/media/102425/download

FDA. (2022). *Alinity m HIV-1*. https://www.fda.gov/vaccines-blood-biologics/alinity-m-hiv-1

Fogel, J. M., Bonsall, D., Cummings, V., Bowden, R., Golubchik, T., de Cesare, M., Wilson, E. A., Gamble, T., del Rio, C., Batey, D. S., Mayer, K. H., Farley, J. E., Hughes, J. P., Remien, R. H., Beyrer, C., Fraser, C., & Eshleman, S. H. (2020). Performance of a high-throughput next-generation sequencing method for analysis of HIV drug resistance and viral load. *Journal of Antimicrobial Chemotherapy*, *75*(12), 3510-3516. https://doi.org/10.1093/jac/dkaa352

Fox, Z. V., Geretti, A. M., Kjaer, J., Dragsted, U. B., Phillips, A. N., Gerstoft, J., Staszewski, S., Clotet, B., von Wyl, V., & Lundgren, J. D. (2007). The ability of four genotypic interpretation systems to predict virological response to ritonavir-boosted protease inhibitors. *Aids*, *21*(15), 2033-2042. https://doi.org/10.1097/QAD.0b013e32825a69e4

Gandhi, R. T., Bedimo, R., Hoy, J. F., Landovitz, R. J., Smith, D. M., Eaton, E. F., Lehmann, C., Springer, S. A., Sax, P. E., Thompson, M. A., Benson, C. A., Buchbinder, S. P., del Rio, C., Eron, J. J., Jr, Günthard, H. F., Molina, J.-M., Jacobsen, D. M., & Saag, M. S. (2022). Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults: 2022 Recommendations of the International Antiviral Society–USA Panel. *JAMA*. https://doi.org/10.1001/jama.2022.22246

Gibson, K. S., & Toner, L. E. (2020). Society for Maternal-Fetal Medicine Special Statement: Updated checklists for pregnancy management in persons with HIV. *American Journal of Obstetrics & Gynecology*, *223*(5), B6-B11. https://doi.org/10.1016/j.ajog.2020.08.064

Gottlieb, G. (2023a, December 5). *Clinical manifestations and diagnosis of HIV-2 infection*. https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-hiv-2-infection

Gottlieb, G. (2023b). *Epidemiology, transmission, natural history, and pathogenesis of HIV-2 infection*. UpToDate. Retrieved 2/11/2022 from https://www.uptodate.com/contents/epidemiology-transmission-natural-history-and-pathogenesis-of-hiv-2-infection

Hopkins, M., Hau, S., Tiernan, C., Papadimitropoulos, A., Chawla, A., Beloukas, A., & Geretti, A. M. (2015). Comparative performance of the new Aptima HIV-1 Quant Dx assay with three commercial PCR-based HIV-1 RNA quantitation assays. *Journal of Clinical Virology*, *69*, 56-62. https://doi.org/10.1016/j.jcv.2015.05.020

Hsu, K. K., & Rakhmanina, N. Y. (2022). Adolescents and Young Adults: The Pediatrician's Role in HIV Testing and Pre- and Postexposure HIV Prophylaxis. *Pediatrics*, *149*(1). https://doi.org/10.1542/peds.2021-055207

Hughes, M. D., Johnson, V. A., Hirsch, M. S., Bremer, J. W., Elbeik, T., Erice, A., Kuritzkes, D. R., Scott, W. A., Spector, S. A., Basgoz, N., Fischl, M. A., & D'Aquila, R. T. (1997). Monitoring plasma HIV-1 RNA levels in addition to CD4+ lymphocyte count improves assessment of antiretroviral therapeutic response. ACTG 241 Protocol Virology Substudy Team. *Ann Intern Med*, *126*(12), 929-938. https://pubmed.ncbi.nlm.nih.gov/9182469/

Kozal, M. (2019a, September 17). *Interpretation of HIV drug resistance testing*. https://www.uptodate.com/contents/interpretation-of-hiv-drug-resistance-testing

Kozal, M. (2019b, September 17). *Overview of HIV drug resistance testing assays*. https://www.uptodate.com/contents/overview-of-hiv-drug-resistance-testing-assays

LabCorp. (2021). *Human Immunodeficiency Virus 1 (HIV-1) PhenoSense GT® Plus Integrase (Monogram® Phenotype + Genotype)*. https://www.labcorp.com/tests/551920/human-immunodeficiency-virus-1-hiv-1-phenosense-gt-plus-integrase-monogram-phenotype-genotype

Lindman, J., Hønge, B. L., Kjerulff, B., Medina, C., da Silva, Z. J., Erikstrup, C., Norrgren, H., & Månsson, F. (2019). Performance of Bio-Rad HIV-1/2 Confirmatory Assay in HIV-1, HIV-2 and HIV-1/2 dually reactive patients - comparison with INNO-LIA and immunocomb discriminatory assays. *J Virol Methods*, *268*, 42-47. https://doi.org/10.1016/j.jviromet.2019.03.005

Mansky, L. M., & Temin, H. M. (1995). Lower in vivo mutation rate of human immunodeficiency virus type 1 than that predicted from the fidelity of purified reverse transcriptase. *J Virol*, *69*(8), 5087-5094. https://www.ncbi.nlm.nih.gov/pmc/articles/pmid/7541846/

Mor, O., Gozlan, Y., Wax, M., Mileguir, F., Rakovsky, A., Noy, B., Mendelson, E., & Levy, I. (2015). Evaluation of the RealTime HIV-1, Xpert HIV-1, and Aptima HIV-1 Quant Dx Assays in Comparison to the NucliSens EasyQ HIV-1 v2.0 Assay for Quantification of HIV-1 Viral Load. *J Clin Microbiol*, *53*(11), 3458-3465. https://doi.org/10.1128/jcm.01806-15

Pröll, J., Paar, C., Taylor, N., Skocic, M., Freystetter, A., Blaimschein, A., Mayr, R., Niklas, N., Atzmüller, S., Raml, E., & Wechselberger, C. (2022). New aspects of the Virus Life Cycle and Clinical Utility of Next Generation Sequencing based HIV-1 Resistance Testing in the Genomic, the Proviral and the Viral Reservoir of Peripheral Blood Mononuclear Cells. *Curr HIV Res*. https://doi.org/10.2174/1570162x20666220324111418

Quinn, T. (2022). *Global epidemiology of HIV infection*. UpToDate. https://www.uptodate.com/contents/global-epidemiology-of-hiv-infection

Raymond, S., Nicot, F., Abravanel, F., Minier, L., Carcenac, R., Lefebvre, C., Harter, A., Martin-Blondel, G., Delobel, P., & Izopet, J. (2020). Performance evaluation of the Vela Dx Sentosa next-generation sequencing system for HIV-1 DNA genotypic resistance. *Journal of Clinical Virology*, *122*, 104229. https://doi.org/10.1016/j.jcv.2019.104229

Rosemary, A., Chika, O., Jonathan, O., Godwin, I., Georgina, O., Azuka, O., Zaidat, M., Philippe, C., Oliver, E., Oche, A., David, O., Jay, S., Ibrahim, D., Mukhtar, A., Joshua, D., Chunfu, Y., Elliot, R., Beth, C., Phyllis, K., & Emmanuel, I. (2018). Genotyping performance evaluation of commercially available HIV-1 drug resistance test. *PLoS One*, *13*(6), e0198246. https://doi.org/10.1371/journal.pone.0198246

Saag, M. S., Gandhi, R. T., Hoy, J. F., Landovitz, R. J., Thompson, M. A., Sax, P. E., Smith, D. M., Benson, C. A., Buchbinder, S. P., del Rio, C., Eron, J. J., Jr., Fätkenheuer, G., Günthard, H. F., Molina, J.-M., Jacobsen, D. M., & Volberding, P. A. (2020). Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults: 2020 Recommendations of the International Antiviral Society–USA Panel. *JAMA*, *324*(16), 1651-1669. https://doi.org/10.1001/jama.2020.17025

Saag, M. S., Holodniy, M., Kuritzkes, D. R., O'Brien, W. A., Coombs, R., Poscher, M. E., Jacobsen, D. M., Shaw, G. M., Richman, D. D., & Volberding, P. A. (1996). HIV viral load markers in clinical practice. *Nat Med*, *2*(6), 625-629. https://pubmed.ncbi.nlm.nih.gov/8640545/

Sempa, J. B., Dushoff, J., Daniels, M. J., Castelnuovo, B., Kiragga, A. N., Nieuwoudt, M., & Bellan, S. E. (2016). Reevaluating Cumulative HIV-1 Viral Load as a Prognostic Predictor: Predicting Opportunistic Infection Incidence and Mortality in a Ugandan Cohort. *Am J Epidemiol*, *184*(1), 67-77. https://doi.org/10.1093/aje/kwv303

Shen, C., Yu, X., Harrison, R. W., & Weber, I. T. (2016). Automated prediction of HIV drug resistance from genotype data. *BMC Bioinformatics*, *17 Suppl 8*, 278. https://doi.org/10.1186/s12859-016-1114-6

Sollis, K. A., Smit, P. W., Fiscus, S., Ford, N., Vitoria, M., Essajee, S., Barnett, D., Cheng, B., Crowe, S. M., Denny, T., Landay, A., Stevens, W., Habiyambere, V., Perrins, J., & Peeling, R. W. (2014). Systematic review of the performance of HIV viral load technologies on plasma samples. *PLoS One*, *9*(2), e85869. https://doi.org/10.1371/journal.pone.0085869

Swenson, L. C., Cobb, B., Geretti, A. M., Harrigan, P. R., Poljak, M., Seguin-Devaux, C., Verhofstede, C., Wirden, M., Amendola, A., Boni, J., Bourlet, T., Huder, J. B., Karasi, J. C., Zidovec Lepej, S., Lunar, M. M., Mukabayire, O., Schuurman, R., Tomazic, J., Van Laethem, K., . . . Wensing, A. M. (2014). Comparative performances of HIV-1 RNA load assays at low viral load levels: results of an international collaboration. *J Clin Microbiol*, *52*(2), 517-523. https://doi.org/10.1128/jcm.02461-13

ThermoFisher. (2011). *ViroSeq™ HIV-1 Genotyping System*. https://tools.thermofisher.com/content/sfs/manuals/cms_041134.pdf

Thompson, M. A., Horberg, M. A., Agwu, A. L., Colasanti, J. A., Jain, M. K., Short, W. R., Singh, T., & Aberg, J. A. (2020). Primary Care Guidance for Persons With Human Immunodeficiency Virus: 2020 Update by the HIV Medicine Association of the Infectious Diseases Society of America. *Clinical Infectious Diseases*. https://doi.org/10.1093/cid/ciaa1391

USPSTF. (2019). *Screening for HIV Infection: US Preventive Services Task Force Recommendation Statement*. Retrieved 23 from https://doi.org/10.1001/jama.2019.6587

Wood, B. R. (2023, Feb 15). *The natural history and clinical features of HIV infection in adults and adolescents*. UpToDate. https://www.uptodate.com/contents/the-natural-history-and-clinical-features-of-hiv-infection-in-adults-and-adolescents

Zhang, J., Rhee, S. Y., Taylor, J., & Shafer, R. W. (2005). Comparison of the precision and sensitivity of the Antivirogram and PhenoSense HIV drug susceptibility assays. *J Acquir Immune Defic Syndr*, *38*(4), 439-444.

Policy Update History:

Approval Date	Effective Date; Summary of Changes
09/13/2024	01/01/2025: New policy.