Miami-Dade County Ryan White Program
Minimum Primary Medical Care Standards

Drafted and Reviewed by the Medical Care Subcommittee
and Approved by the
Miami-Dade HIV/AIDS Partnership

Statement of Intent: *All local Ryan White Program-funded practitioners are required by contract to adhere, at a minimum, to the Public Health Service (PHS) Guidelines.*

Requirements

1. **Requirements for New Practitioners** (Physicians, Advance Practice Registered Nurse, and Physician Assistants):

   - New practitioners should be linked to existing Ryan White Program providers, AETC or through an AAHIVM specialist to support the new provider.
   - New providers will receive a chart review within 6 months by supervising physician, medical director or agency team.
   - When a new practitioner is working with a contracted practitioner, new practitioner is encouraged to comply within one year to complete at least 30 hours of HIV-related Continuing Medical Education (CME) Category 1 credits

   Requirements for All Practitioners (Physicians, Advance Practice Registered Nurses, and Physician Assistants):

   - Practitioner must be a Physician (MD or DO), Nurse Practitioner, or Physician Assistant with current and valid license to practice medicine within the State of Florida
   - Practitioners must have a minimum experience treating 20 HIV+ clients over the past two years or currently working and under supervision of a practitioner meeting these qualifications.
   - Practitioners are strongly encouraged to complete at least 30 hours of HIV-related Continuing Medical Education (CME) Category 1 credits within a period of two years.
   - Treat and monitor patients in adherence with current DHHS Guidelines and other standards of care, to include, but not limited to:
     a. DHHS Clinical Guidelines
        https://clinicalinfo.hiv.gov/en/guidelines
     b. US Preventive Taskforce
        https://www.uspreventiveservicestaskforce.org/uspstf/
     c. American Cancer Society Guidelines for the Early Detection of Cancer
        http://www.cancer.org/docroot/PED/content/PED_2_3X_ACS_Cancer_Detection_Guidelines_36.asp
     d. European AIDS Clinical Society (EACS) guidelines on the prevention and management of metabolic diseases in HIV
        https://www.eacsociety.org/guidelines/eacs-guidelines/
     e. ACC/AHA Guideline on the Treatment of Blood Cholesterol
        https://www.ahajournals.org/doi/10.1161/CIR.0000000000000625
     f. CDC Recommended Adult Immunization Schedule
        http://www.cdc.gov/vaccines/schedules/hcp/adult.htlm

g. Incorporating Recommendations for HIV Prevention with Adults and Adolescents with HIV in the US
http://stacks.cdc.gov/view/cdc/26062
h. Although not paid for by the Ryan White Program, below are PrEP, nPEP and PEP guidelines:
https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2017.pdf
https://www.cdc.gov/hiv/clinicians/prevention/prep-and-pep.html
https://www.cdc.gov/hiv/pdf/programresources/cdc-hiv-npep-guidelines.pdf
i. National HIV Curriculum
https://www.hiv.uw.edu/alternate
j. American Association for the Study of Liver Diseases
https://www.aasld.org/publications/practice-guidelines-0
k. HIV Drug Interactions University of Liverpool
https://hiv-druginteractions.org/
l. HEP Drug Interactions University of Liverpool
https://www.hep-druginteractions.org/
m. American Medical Association Telehealth Quick Guide
https://www.ama-assn.org/practice-management/digital/ama-telehealth-quick-guide
n. Miami-Dade County Ryan White Program Telehealth Policy
https://www.miamidade.gov/grants/library/ryanwhite/telehealth.pdf
o. Miami-Dade County Ryan White Program Test and Treat / Rapid Access (TTRA) Protocol
https://www.miamidade.gov/grants/library/ryanwhite/section-XIV-test-treat-rapid-access-protocol.pdf
https://www.ama-assn.org/practice-management/digital/ama-telehealth-quick-guide

- Follow an action plan to address any areas for performance improvement that are identified during quality assurance reviews.

Minimum Standards by Which Practitioners Will Be Measured

Assessments and Referrals

2. **Initial** - At initial visit:
   a. If enrolled as Test and Treat/Rapid Access (TTRA) client (patient), follow TTRA protocol for visit
   b. Comprehensive initial history
   c. Mental health and substance abuse assessment
   d. Physical examination, including review of systems
   e. Vital signs, including weight, BMI, height (no shoes) This may not happen on first visit due to COVID and telehealth but should be scheduled for inhouse appt ASAP
   f. Gynecological exam per guidance for females-need consent pursuant to FL Statues.
   g. Wellness exam for females
   h. Rectal examination and stool guaiac testing-not done usually (FIT or GI referral for colonoscopy); Need consent pursuant to FL Statutes
   i. Sexually transmitted infection assessment as appropriate including at a minimum GC, Chlamydia at anatomical sites of potential exposure, RPR, and for females trichomoniasis NAAT of vaginal secretions.
   j. Age appropriate cancer screening
   k. Adherence to medications

l. Risk reduction
m. Safer sex practices-discussions may include PrEP, PEP, nPEP for sexual partners and should include condom usage
n. Pregnancy Planning:
   1) Preconception counseling for men and women
   2) Contraceptive counseling for men and women including assessment and type of birth control method
o. Targeted initial history and physical examination with expectation that a complete history and physical examination will be completed within 3 months.
p. Education that they should never run out of ARV medications and need to call the FDOH-MDC clinic if they cannot obtain ART.

Item to be covered by subrecipient staff: Documented HIV education, including: transmission, reduction of morbidity/mortality with ART; resistance; compliance with ARV and office visits and lab monitoring; life expectancy; divulging HIV status and state statute

3. **Interim Monitoring and Problem-Oriented visits** - At every visit:
   a. Vital signs, including weight/BMI-may not occur every time with telehealth
   b. Physical examination related to specific problem, as appropriate
   c. Interval changes in vital signs addressed, especially trend in weight over time
   d. Adherence to medications and lab and office visits for monitoring
   e. Risk reduction
   f. Safer sex practices-discussions may include PrEP, PEP, nPEP for sexual partners and should include condom usage
   g. Interval risk for acquiring STD and screening as indicated
   h. In women of childbearing age, assessment of adequate contraception

4. **Annual** - At each annual visit:
   a. Update comprehensive initial history, as appropriate
   b. Physical examination, including review of systems
   c. Vital signs, including weight, BMI, height (no shoes)-may not occur every time with telehealth. Annual exams should be done in office and include the above.
   d. Interval changes in vital signs addressed, especially trend in weight/BMI over time
   e. Mental health and substance abuse assessment
   f. Gynecological exam per guidance for females -may need to be scheduled if done by telehealth, should be done in office.
   g. Wellness exam for females
   h. Rectal examination and stool guaiac testing-not done usually (FIT or GI referral for colonoscopy)
   i. Sexual transmitted infection assessment
   j. Age appropriate cancer screening
   k. Adherence to medications
   l. Risk reduction
   m. Safer sex practices-discussions may include PrEP, PEP, nPEP, for sexual partners and should include condom usage
   n. Preconception counseling for men and women

Assess and document health education on:
   o. Nutritional assessment/care
   p. Oral health care

q. Mental Health assessment (particularly clinical depression)/care
r. Exercise
s. Drugs/Alcohol/Tobacco (including smokeless) assessment/care
t. Domestic violence
u. Birth control
v. Advance Directives (completion or review)

Item to be covered by subrecipient staff: If client knows of others who need PrEP or Test and Treat / Rapid Access, information and referral are offered.

5. **Additional Charting/Documentation at least annually:**
   a. Problem list complete and up-to-date
   b. Medications list complete with start and stop dates, dosages
   c. Allergies list complete and up-to-date
   d. Immunization list complete and up-to-date

6. **Telehealth**

   Telehealth may be used in place or conjunction with an office visit. Necessary assessments will be conducted as needed and follow-ups will be scheduled as appropriate.

Assessments to be included at Incremental Visits

HIV Specific

7. **CD4 cell count** [i] - Entry into care; at ART initiation or modification; every 3-6 months during the first 2 years of ART, or if viremia develops while patient is on ART, or if CD4 count is <300 cells/mm^3; every 12 months after 2 years on ART with consistently suppressed viral load, CD4 count 300-500 cells/mm^3, if CD4 count >500 cells/mm^3: CD4 monitoring is optional; if ART initiation is delayed monitor every 3-6 months; if treatment failure or if clinically indicated. *In accordance with the HRSA HAB performance measures, the local program defines consistently suppressed viral load as <200 copies/ml.*

8. **HIV viral load** [i] - Entry into Care; at ART initiation or modification; 2-8 weeks after ART initiation or modification if HIV RNA is detectable at 2-8 weeks, repeat testing every 4-8 weeks until viral load is suppressed to <200 copies/mL. Thereafter, repeat testing every 3-6 months; every 3 to 6 months or every 6 months, in patients on ART, viral load typically is measured every 3-4 months. More frequent monitoring may be considered in individuals who are having difficulties with ART adherence. However, for adherent patients with consistently suppressed viral load and stable immunologic status for more than 2 years, monitoring can be extended to 6-month intervals; if ART initiation is delayed, repeat testing is optional; treatment failure or if clinically indicated.

9. ***ARV therapy is recommended and discussed*** [i, iv]- Risks and benefits are discussed including reduced morbidity and mortality and prevention of HIV transmission to others and if treatment initiated, follow-up with adherence. If refused, document in record and refer to ARTAS and or Department of Health Treatment Adherence Specialist.

10. **Treatment of opportunistic infections and prophylaxis for opportunistic infections** [ii] - Specifically, but not limited to, Mycobacterium avium complex (MAC), Pneumocystis jirovecii pneumonia (PCP), and Toxoplasmosis (Toxo) prophylaxis per DHHS Guidelines.

11. **Resistance Testing** [i] - Entry into care; at ART initiation or modification; if ART initiation is delayed; treatment failure or clinically indicated. Based on current rates of transmitted drug resistance to different ARV medications, standard genotypic drug-resistance testing in ARV-naïve-persons should focus on testing for mutations in the reverse transcriptase and protease genes. If transmitted INSTI resistance is a concern or if a person presents with viremia while on an INSTI, providers should also test for resistance mutations to this class of drugs. In ART-naïve patients who do not immediately begin ART, repeat testing before initiation of ART is optional if resistance testing was performed at entry into care. In patients with virologic suppression who are switching therapy because of toxicity or for convenience, viral amplification will not be possible; see the DHHS section on Drug Resistance Testing for discussion of the potential limitations and benefits of proviral DNA assays in this situation. Results from prior resistance testing can be helpful in constructing a new regimen.

12. **HLA-B*5701** [i] - If considering start of abacavir (ABC) at ART initiation or modification and document in record carrying data forward to most current volume. *(Currently not paid for by the Ryan White Program due to payer of last resort restrictions; must access ViiV sponsored testing directly through labs. For LabCorp, HLA-AWARE HLA-B*5701 ViiV code #006940 and for Quest Diagnostic ViiV HLA-B*B5701 test code #19774)*

13. **Tropism testing** [i] - If considering use of CCR5 antagonist (requires plasma HIV RNA level ≥ 1000 copies/mL) in ART initiation or modification, or for patients experiencing virologic failure on a CCR5 antagonist-based regimen or if clinically indicated. If performed, record carried forward to most current volume.

STI Screenings

14. **Anal Dysplasia Screening** [iii] -For all patients with HIV ≥35 years old, regardless of HPV vaccine status, clinicians should: inquire annually about anal symptoms, such as itching, bleeding, palpable masses or nodules, pain, tenesmus, or a feeling of rectal fullness; perform a visual inspection of the perianal region; provide information about anal cancer screening and engage the patient in shared decision-making regarding screening, including anal cytology prior to digital anorectal examination (DARE); recommend and perform DARE to screen for anal pathology; perform DARE if anal symptoms are present. For MSM, transgender women, women, and transgender men with HIV clinicians should perform or recommend annual anal pap testing to identify potentially cancerous cytologic abnormalities. Evaluate any patient with HIV who is <35 years old and presents with signs or symptoms that suggest anal dysplasia. Clinicians should conduct or refer for high resolution anoscope (HRA) and histology (via biopsy) any patient with abnormal anal cytology and refer patients with suspected anal cancer determined by DARE or histology to an experienced specialist for evaluation and management. Additional information at https://www.hivguidelines.org/hiv-care/anal-dysplasia-cancer/.

15. **Bacterial STIs (Syphilis**, **N. gonorrhoeae** (GC), **C. trachomatis** (Chlamydia) and **parasitic STIs (Trichomoniasis)** [iv]- At the initial HIV care visit, providers should test all sexually active persons with HIV infection for curable STDs (e.g., syphilis, gonorrhea, and chlamydia) and perform testing at least annually during the course of HIV care. Specific testing includes syphilis serology and NAAT for N. gonorrhoeae and C. trachomatis at the

anatomic site of exposure, as the preferred approach. Women with HIV infection should also be screened for trichomonas at the initial visit and annually thereafter. Women should be screened for cervical cancer precursor lesions by cervical Pap tests per existing guidelines. More frequent screening for curable STDs might be appropriate depending on individual risk behaviors and the local epidemiology of STDs. Many STDs are asymptomatic, and their diagnosis might indicate risk behavior that should prompt referral for partner services and prevention counseling. USPSTF recommends high-intensity behavioral counseling for all sexually active adolescents and for adults at increased risk for STDs and HIV. The following are recommended annual for sexually active MSM, syphilis serology, testing for urethral infection with N. gonorrhoeae and C. trachomatis in men who have had insertive intercourse during the preceding year, test for rectal infections with N. gonorrhoeae and C. trachomatis for men who have receptive anal intercourse during the preceding year and test for pharyngeal infection with N. gonorrhoeae in men who have had receptive oral intercourse during the preceding year. More frequent STD screenings at 3-6-month intervals is indicated if risk behaviors persist. Additional information at https://www.cdc.gov/std/tg2015/tg-2015-print.pdf.

General Health including Labs

16. **ALT, AST, Total Bilirubin** [i] - Entry into care; ART initiation or modification; 2-8 weeks after ART initiation or modification; every 6 months; or if ART initiation is delayed, every 6-12 months, or if clinically indicated.

17. **Basic chemistry** [i,v] - Entry into care; ART initiation or modification; 2-8 weeks after ART initiation or modification; every 6 months; if ART initiation is delayed every 6-12 months, or if clinically indicated. Serum Na, K, HCO_3, Cl, BUN, creatinine, glucose, and creatine-base glomerular filtration rate. Serum phosphorus should be monitored in patients with chronic kidney disease who are on TDF(tenofovir)-containing regimens. Consult the Guidelines for the Management of Chronic Kidney Disease in HIV-Infected Patients: Recommendations of the HIV Medicine Association of the Infectious Diseases Society of America for recommendations on managing patients with renal diseases. More frequent monitoring may be indicated for patients with evidence of kidney diseases (e.g. proteinuria, decreased glomerular dysfunction) or increased risk of renal insufficiency (e.g. patients with diabetes, hypertension). Additional information at https://academic.oup.com/cid/article/59/9/e96/422813

18. **CBC w/ differential** [i] - Entry into care; ART initiation or modification; every 3-6 months when monitoring CD4 cell count; perform CBC cell count and CD4 concurrently; every 12 months when no longer monitoring CD4 cell count; if ART initiation is delayed, every 3-6 months, or if when clinically indicated. CBC with differential should be done when a CD4 count is performed. When CD4 count is no longer being monitored, the recommended frequency of CBC with differential is once a year. More frequent monitoring may be indicated for persons who are receiving medications that potentially cause cytopenia [e.g. ZDV (zidovudine), TMP-SMX (trimethoprim-sulfamethoxazole)].

19. **Random or Fasting Glucose** [i,vi] - Entry into care; ART initiation or modification; every 12 months; if ART initiation is delayed but if normal at baseline, annually, or if clinically indicated. If random glucose is abnormal, fasting glucose should be obtained. HbA1C is no longer recommended for diagnosis of diabetes in person with HIV on ART, see ADA guidelines. Additional information at https://care.diabetesjournals.org/content/43/Supplement_1.

20. **Random or Fasting Lipid Profile** [i,vii] - Entry into care; ART initiation or modification; every 12 months; if ART initiation is delayed but if normal at baseline, annually, or if clinically indicated. If random lipids are abnormal, fasting lipids should be obtained. Consult the 2018 Guideline on the Management of Blood Cholesterol for diagnosis and management of patients with dyslipidemia. Additional information at https://www.acc.org/latest-in-cardiology/ten-points-to-remember/2018/11/09/14/28/2018-guideline-on-management-of-blood-cholesterol.

21. **Urinalysis** [i,v] - Entry into care; ART initiation or modification; every 6 months in patients on a tenofovir-containing regimen (TDF), every 12 months or if clinically indicate. Consult the Guidelines for the Management of Chronic Kidney Disease in HIV-Infected Patients: Recommendations of the HIV Medicine Association of the Infectious Disease Society of America for recommendations on managing patients with renal disease. More frequent monitoring may be indicated for patients with evidence of kidney disease (e.g., proteinuria, decreased glomerular dysfunction) or increased risk of renal insufficiency (e.g., patients with diabetes, hypertension). Urine glucose and protein should be assessed before initiating tenofovir alafenamide (TAF)-or tenofovir (TDF)-containing regimens and monitored during treatment with these regimens.
Additional information at https://academic.oup.com/cid/article/59/9/e96/422813

22. **TB Testing** [ii] - QuantiFERON TB Gold, T-SPOT, or Tuberculin Skin Test (TST), placed by the Mantoux method, should be performed as close to diagnosis of HIV infection and annually thereafter. If tested when CD4 < 200, repeat after CD4 increases to above 200. Annual TB test is recommended if patient is deemed high risk (repeated or ongoing exposure to known active TB, after incarceration, after living in congregate setting, active drug user or other risk factor for TB). If TB test is positive or has had active Tuberculosis documented with adequate treatment, annual chest X-ray should be performed. If chest X-ray cannot be afforded, cough screen questionnaire may be used as suggested by David Ashkin, MD.

23. **Bone Densitometry** [viii, ix] - Age 40-50 calculate FRAX to determine earlier screening and use "secondary causes" check box when using FRAX calculator. FRAX calculator**:** http://www.shef.ac.uk/FRAX/. All greater than or equal to age 50 men and postmenopausal women need DEXA. Additional information at http://hivinsite.ucsf.edu/InSite?doc=md-ward86-osteoporosis&page=md-ward86-index.[v]

24. **Colon and Rectal Cancer Screening** [x] - Colorectal cancer screening recommended for individuals between 45-75 years of age. For ages 76-85 screening should be based on personal preference, life expectancy, overall health, and prior screening history. Those over 85 years old should no longer get colorectal cancer screening. Discussion should take place earlier (1) for those with a personal history of colorectal cancer or certain types of polyps, (2) for those with a family history of colorectal cancer, (3) for those with inflammatory bowel disease (ulcerative colitis or Crohn's disease), (4) for those with confirmed or suspected hereditary colorectal cancers syndrome, such as familial adenomatous polyposis (FAP) or Lynch syndrome (hereditary non-polyposis colon cancer or HNPCC), or for those for with a personal history of getting radiation to the abdomen (belly) or pelvic area to treat a prior cancer.

25. **Lung Cancer Screening** [xi] -Annually with low-dose computer tomography (LDCT) for patients age 55-80 who have a 20 pack-year smoking history and currently smoke or have quit within the last 15 years. Screening should be discontinued once a person has not

smoked for 15 years, or has developed a health problem that substantially limits life expectancy or ability or willingness to have curative lung surgery.

26. H**epatitis A Screening** [xii] - At initial screening, if non-immune, offer vaccination and after vaccination received do postvaccination serologic testing ≥1 month after completing the hepatitis A vaccine series. See additional recommendations in guidelines.

27. **Hepatitis B Serology (HBsAb, HBsAg, HBcAb total)** [i] - At entry into care; at ART initiation or modification, may repeat if patient is nonimmune and does not have chronic HBV infection; every 12 months, may be repeated if patient is nonimmune and does not have chronic HBV infection, or if clinically indicated, including prior to starting HCV direct-acting antiretroviral (see HCV/HIV Coinfection). If patient has HBV (as determined by a positive HBsAg or HBV DNA test result), TDF(tenofovir) or TAF (tenofovir alafenamide) plus either FTC (emtricitabine) or 3TC (lamivudine) should be used as part other ARV regiment to treat both HBV and HIV infections (HBV/HIV). If HBsAg, HBsAb, and HBcAb test results are negative, hepatis B vaccine series should be administered. Refer to the HIV Primary Care Guidelines and the Adult and Adolescent Opportunistic Infection Guidelines for detailed recommendations. Most patients with isolated HBcAb have resolved HBV infection with loss of HBsAb. Consider performing an HBV viral load test for confirmation. If the HBV viral load test is positive, the patient may be acutely infected (and will usually display other signs of acute hepatitis) or chronically infected. If the test is negative, the patient should be vaccinated. Refer to the HIV Primary Care Guidelines and the Adult and Adolescent Opportunistic Infection Guidelines for detailed recommendations.

28. **Hepatitis C Screening (HCV antibody or, if indicated, HCV RNA)** [i] - At entry into care; every 12 months, for at-risk patients-injection drug users, person with a history of incarceration, men with HIV who have unprotected sex with men, and persons with percutaneous/parenteral exposure to blood in unregulated settings are at risk for HCV infection; or when clinically indicated. The HCV antibody test may not be adequate for screening in the setting of recent HCV infection (defined as acquisition within the past 6 months), or advanced immunodeficiency (CD4 count <100 cells/mm^3). HCV RNA screening is indicated in persons who have been successfully treated for HCV or who spontaneously cleared prior infection. HCV antibody-negative patients with elevated ALT may need HCV RNA testing.

29. **Gynecological Exam** [xiii] (females) - In women and adolescents with HIV, initiation of cervical cancer screening with cytology alone should begin within one year of onset of sexual activity, or if already sexually active, within the first year after HIV diagnosis but no later than 21 years of age. Cervical cancer screenings in women who are infected with HIV should continue throughout a woman's lifetime (i.e. not stopping at age 65 years). In women infected with HIV who are younger than 30 years, if the initial cytology screening result is normal, the next cytology screening should be in 12 months. If the results of three consecutive annual cervical cytology screenings are normal, follow-up cervical cytology screen should be every 3 years. Co-testing (cervical cytology and human papillomavirus [HPV] screening) is not recommended for HIV-infected women younger than 30 years. Women infected with HIV who are 30 years and older can be screened with cytology alone or co-testing. After women screened with cytology alone have had three consecutive annual test results that are normal, follow-up screening can be every 3 years. Women infected with HIV who have one negative co-test results (normal cytology and HPV negative) can have their next cervical cancer screening in 3 years. In women with HIV infection, co-testing results that are cytology negative, but HPV positive are managed as in the general

population. Women with HIV who have cervical cytology results of low-grade squamous intraepithelial lesions or worse should be referred for colposcopy. For women with HIV infection who are 21 years or older and have atypical squamous cells of undetermined significance (ASC-US) test results, if reflex HPV testing results are positive, referral to colposcopy is recommended. If HPV testing is not available, repeat cervical cytology in 6-12 months is recommended, and for any result of ASC-US or worse on repeat cytology, referral to colposcopy is recommended. Repeat cytology in 6-12 months, but not HPV testing, is recommended for HIV-infected women younger than 21 years with ASC-US test results. Although not explicitly stated in the Panel guidelines, women with HIV infection who have ASC-US, HPV-negative results (whether from reflex HPV testing or co-testing) can return to regular screening.

30. **Mammogram (**females) [xiv] - Starting at age 40, screening recommended annually. After age 55 every 2 years or can continue yearly screening. Screenings should continue as long as a woman is in good health and is expected to live at least 10 more years.

31. **Pregnancy test** [i] (For people of childbearing potential)- At entry into care; ART initiation or modification or when clinically indicated.

32. **Annual wellness visit** (females) [xv]- Should include screenings for anxiety, breast cancer, cervical cancer, interpersonal and domestic violence, sexually transmitted infections, urinary incontinence, and contraception. For those who are pregnant, lactation support and screenings for diabetes mellitus, as applicable.

33. **Prostate-specific antigen (PSA) Screening** [xvi] (males) - PSA testing is an individualized decision to be made by clinician and patient based on current guidelines.

Immunizations

Document in medical record carrying data forward to most current volume

34. **Hepatitis A vaccination** [xi, xvii] - Offer vaccination if not immune per guidance. Assess for response 30-60 days after vaccination by performing Hep A IgG antibody or Hep A Total antibody.

35. **Hepatitis B vaccination** [xvii] - Offer vaccination if not immune per guidance. Assess for response 30-60 days after vaccination by performing Hepatitis B surface antibody quantitative (anti-HBs).

36. **Human Papillomavirus (HPV) Vaccine** [xvii] - HPV vaccination as indicate by current guidelines.

37. **Influenza vaccination** [xvii] - Offer IIV or RIV4 annually.

38. **Meningococcal vaccination** [xvii] - Use 2-dose series MenACWY-D (Menactra, Menveo or MenQuadfi)) at least 8 weeks apart and revaccinate every 5 years if risk remains. See vaccination guidelines**.**

39. **Pneumococcal polysaccharide (PPSV23) and Pneumococcal conjugated (PCV13) vaccination** [xvii] - Should receive a dose of PCV13 (Prevnar 13), followed by a dose of PPSV23 (Pneumovax 23) at least 8 weeks later, then another dose PPSV23 at least 5 years

after previous PPSV23; at age 65 or older, administer 1 dose PPSV23 at least 5 years after most recent PPSV23 (note: only 1 dose PPSV23 recommended at age 65 year or older).

40. **Tetanus, diphtheria, pertussis (Td/Tdap)** [xvii] - One dose Tdap, then Td or Tdap every 10 years.

41. **Varicella** [xvii] – Vaccination may be considered (2 doses 3 months apart); VAR contraindicated for HIV infection with CD4 count <200 cells/mm^3.

42. **Zoster vaccination** [xvii] - Recommended for 50 years and older per guidelines, use RZV.

43. **SARS-CoV-2 vaccination** [xvii] - Vaccinate per CDC guidance.

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[i] Guidelines for the Use of Antiretroviral Agents in HIV-1 Infected Adults and Adolescents. https://clinicalinfo.hiv.gov/en/guidelines/adult-and-adolescent-arv/tests-initial-assessment-and-follow?view=full. Accessed on July 19, 2021.
[ii] Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV. https://clinicalinfo.hiv.gov/en/guidelines/adult-and-adolescent-opportunistic-infection/whats-new-guidelines. Accessed July 19, 2021.
[iii] Screening for Anal Dysplasia and Cancer in Patients with HIV. https://www.hivguidelines.org/hiv-care/anal-dysplasia-cancer/. Accessed November 16, 2021.
[iv] Sexually Transmitted Diseases Guidelines, 2015. June 5, 2015. MMWR 2015. vol. 64, no. 3. https://www.cdc.gov/std/tg2015/tg-2015-print.pdf. Accessed July 19, 2021.
[v] Clinical Practice Guideline for the Management of Chronic Kidney Disease in Patients Infect with HIV: 2014 Update by the HIV Medicine Association of the Infectious Disease Society of America. Clinical Infectious Disease, vol. 59, issue 9, November 2014, e96-e138.
[vi] American Diabetes Association. Diabetes Care. January 1, 2020. Vol. 43, Issue supplement 1. https://care.diabetesjournals.org/content/43/Supplement_1. Accessed July 21, 2021.
[vii] 2018 Guideline on the Management of Blood Cholesterol. American College of Cardiology, November 10, 2018. https://www.acc.org/latest-in-cardiology/ten-points-to-remember/2018/11/09/14/28/2018-guideline-on-management-of-blood-cholesterol. Accessed July 21, 2021.
[viii] Recommendations for Evaluation and Management of Bone Disease in HIV. Clinical Infectious Disease 2015:60; 1242-1251. https://pubmed.ncbi.nlm.nih.gov/25609682/. Accessed September 10, 2021.
[ix] Osteoporosis Screening, Treatment, and Prevention in HIV-Infect Patients. Updated January 2019 http://hivinsite.ucsf.edu/InSite?doc=md-ward86-osteoporosis&page=md-ward86-index. Accessed July 21, 2021.
[x] American Cancer Society Recommendations for Colorectal Cancer Screening. https://www.cancer.org/cancer/colon-rectal-cancer/detection-diagnosis-staging/acs-recommendations.html Accessed July 21, 2021.
[xi] Screening for Lung Cancer: US Preventive Services Task Force Recommendation Statement. file:///C:/Users/Marlen/AppData/Local/Temp/lung-cancer-screening-final-recommendation.pdf. Accessed September 10, 2021.
[xii] Prevention of Hepatitis A Virus in the United States: Recommendations of the Advisory Committee on Immunization Practices, 2020. July 3, 2020. MMWR 2020. vol. 69, no. 5. https://www.cdc.gov/mmwr/volumes/69/rr/rr6905a1.htm. Accessed September 10, 2021.
[xiii] Gynecologic Care for Women and Adolescents with Human Immunodeficiency Virus. The American College of Obstetricians and Gynecologist, vol. 128, no. 4, October 2016.
[xiv] American Cancer Society Recommendations for the Early Detection of Breast Cancer. https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/american-cancer-society-recommendations-for-the-early-detection-of-breast-cancer.html. Accessed July 21, 2021.
[xv] Women's Preventive Service Guidelines. https://www.hrsa.gov/womens-guidelines-2019. Accessed September 10, 2021.

[xvi] American Cancer Society Recommendations for Prostate Cancer Early Detection. https://www.cancer.org/cancer/prostate-cancer/detection-diagnosis-staging/acs-recommendations.html. Accessed July 21, 2021.
[xvii] Recommended Adult Immunization Schedule for Ages 19 years or older, United States, 2021. https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html. Accessed September 10, 2021.