HIV: Screening, Prevention, and Management in Community Health Centers

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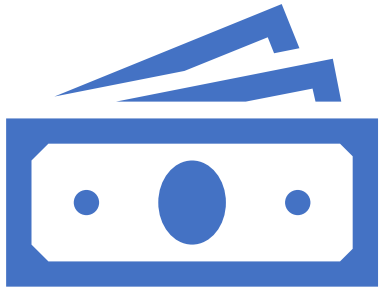
Disclosures



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Objectives

- Describe new and updated guidelines on HIV screening, prevention, and treatment.
- Describe nuances within community health centers surrounding HIV care and how to optimize clinical outcomes with limited resources.
- Identify new medications coming to the market for HIV management.
- Identify community resources to optimize clinical outcomes and patient care.

A Brief Overview

HIV is caused by a retrovirus named the human immunodeficiency virus (HIV)

It attacks the CD4 T lymphocyte cells (T cells) that fight disease and infection.

HIV is a life-long, chronic disease.

HIV has three stages.

HIV: Transmission & Risk

Transmission occurs through HIV-contaminated body fluids (blood, semen, pre-seminal fluid, rectal fluids, vaginal fluids, and breast milk) that encounter mucous membranes, damaged tissue, or is injected into the blood stream.

Main mode of transmission in US is through sex and sharing HIV-contaminated needles/syringes.

HIV, when adequately treated, has a low, if negligible, transmission rate.

Three Stages of HIV: Stage 1

- Stage 1: Acute HIV Infection
  - A few weeks after infection with HIV.
  - Flu-like symptoms are common.
  - Acute HIV is known for high viral loads and being highly contagious.
  - The only way to detect infection is through an antigen/antibody test or nucleic acid test.

Three stages of HIV: Stage 2

- Clinical Latency/Chronic HIV
  - HIV is still active.
  - Viral replication kept in check by immune system.
  - Asymptomatic.
  - If taking ART, they may remain in this stage for the rest of their life.

Three Stages of HIV: Stage 3

- AIDS
  - Marked by an increase in viral load, followed by an increase in symptoms.
  - This stage is noted to have a markedly impaired immune system, making individuals susceptible to opportunistic infections.
    - Kaposi's Sarcoma
    - Pneumocystis Jirovecci (pneumocystis pneumonia)
    - Cytomeglovirus
    - Tuberculosis
  - Without intervention, survival is three years or less.
  - Symptoms include chills, fever, sweats, swollen lymph glands, and weight loss.
  - CD4 (T Cell) count is less than 200 for diagnosis

HIV Screening and Management within Community Health Centers (CHCs)

In NC there are 34, 963 people living with HIV.	• Of those, 1,079 were new HIV diagnoses
The highest rate of HIV occurs in Southern States.	• North Carolina ranks #11
Individuals in underserved communities have limited resources.	• Individuals residing below the federal poverty line are more likely to be diagnosed with HIV

HIV Screening and Management within CHCs: Unmet HIV Medical Need

16.7% of PLWH in NC had unmet HIV medical needs.

The highest proportion of PLWH with unmet need:

- Women who had unknown risk
- Men who reported injection drug use
- People who are transgender who reported injection drug use

Fayetteville & Charlotte had the highest proportion of unmet need.

HIV Screening and Management within CHCs: UDS

Preventative Care & Screening: HIV Screening

Percentage of patients aged 15-65 at the start of the measurement period who were between 15-64 when tested for HIV

Disease Management: HIV Linkage to Care

Percentage of patients newly diagnosed with HIV who were seen for follow-up treatment within 30 days of diagnosis

HIV Screening, Prevention, & Management Guidelines: Prevention & Health Promotion

01

Deliver health information; education on preventive measures and harm reduction.

02

Provide advice and information to groups at high risk for infections.

03

Distribute preventative commodities.

- Condoms, lubricant, needles, syringes, PrEP.

04

Provide specialized information for pregnant women.

05

Promote health-seeking activity and early treatment.

HIV Screening, Prevention, & Management Guidelines: Case Identification & Testing

Provide simple point-of-care rapid diagnostic testing

Collect samples for laboratory testing, communicate test results, and provider referrals to prevention, treatment, and care services.

- Increase access to and uptake of HIV treatment
- Discuss voluntary disclosure and conduct partner notification
- Conduct active case finding and contact tracing

HIV Screening, Prevention, & Management Guidelines: Treatment & Care

Clinical support services to include triage, assessing clinical symptoms, screening for and recognition of co-morbidities.

Improve linkage to and initiation of treatment, encourage adherence and enhance treatment outcomes.

- Counsel patients on benefits and risks of ART and dispense routine ART between clinical visits
- Support transition into differentiated care, including multi-month refills
- Conduct clinical monitoring
- Recognize drug side-effects and treatment failure; refer and provide enhanced adherence support.

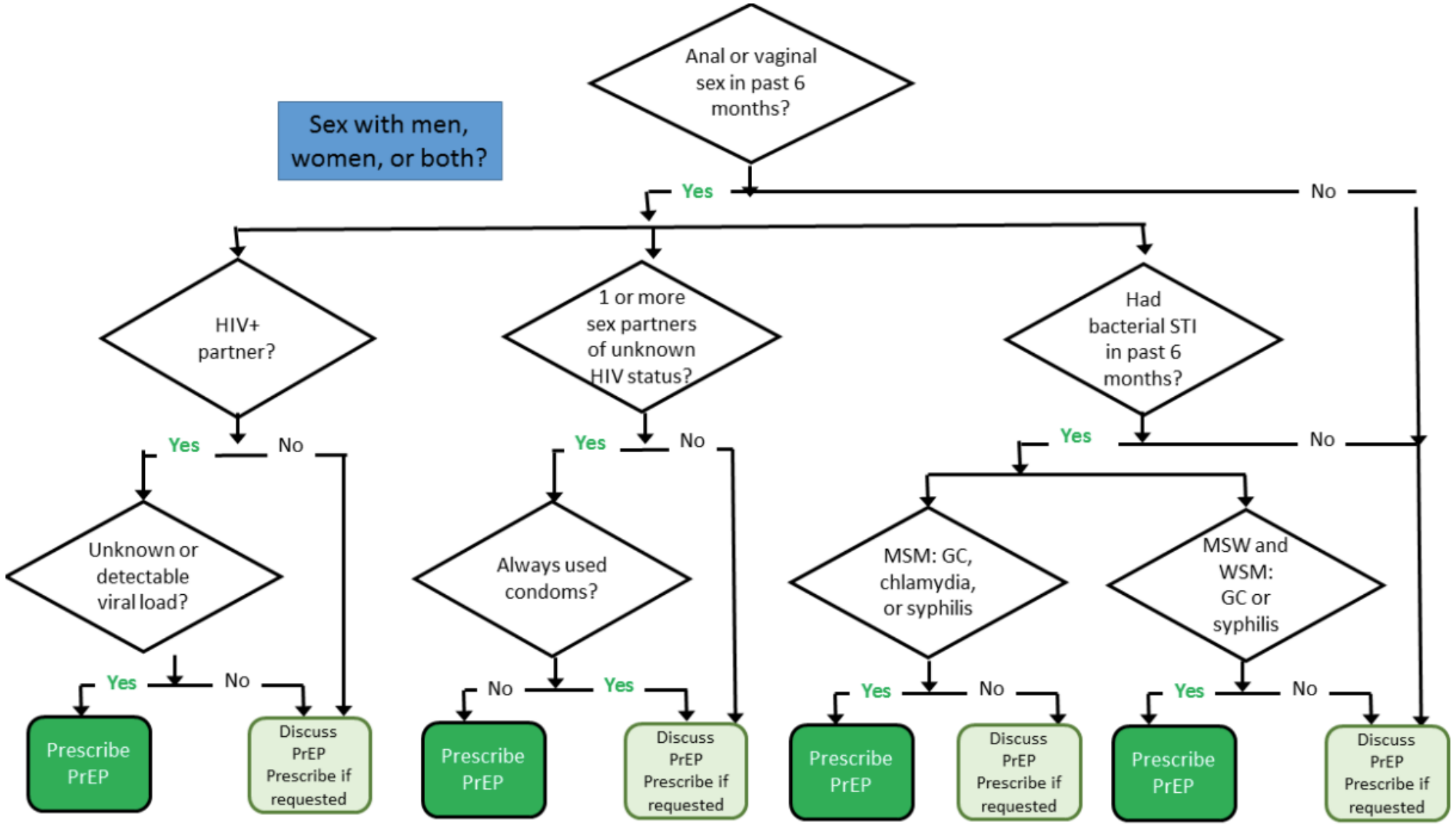
Advise on home care, perform home visits, and provide palliative care.

HIV Screening, Prevention, & Management Guidelines: Support Services

- Enhance emotional support and provide lay counseling and peer support groups.
- Encourage enrollment in specific HIV programs, services, and support groups.
- Provide home-based palliative care.
- Manage drug supply logistics, including monitoring for stock outs and expirations.
    - Conduct cross-cutting education and counseling to address stigma and discrimination.
- Coordinate social and livelihood support (including food supplementation).
- Manage patient records.
- Collect and use data and conduct surveillance activities.

Prevention & Health Promotion: PrEP

- PrEP is preexposure prophylaxis therapy. The goal is to prevent HIV infection if exposed to the virus.
- All sexually active individuals should receive information about PrEP services.
- Acute and chronic HIV infection must be excluded by symptom history and HIV testing immediately before prescribing PrEP.
- HIV infection is assessed every 3 months for daily oral PrEP and every 4 months for CAB injections for PrEP.
- Clinicians should provide access to support for medication adherence and continuation to follow-up PrEP care.


Sex with men, women, or both?
Anal or vaginal sex in past 6 months?
Yes
No
HIV+ partner?
1 or more sex partners of unknown HIV status?
Had bacterial STI in past 6 months?
Yes
No
Yes
No
Yes
No
Unknown or detectable viral load?
Always used condoms?
MSM: GC, chlamydia, or syphilis
MSW and WSM: GC or syphilis
Yes
No
Yes
No
Yes
No
Yes
No
Prescribe PrEP
Discuss PrEP Prescribe if requested
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Prevention & Health Promotion: PrEP, at Risk Populations

- Individuals at high risk for acquiring HIV:
  - Anal/Vaginal sex in the past 6 months AND any of the following:
    - HIV-positive partner
    - Bacterial STI in the past 6 months
    - History of inconsistent or no condom use with sexual partners
  - Persons who inject drugs
    - HIV-positive partner
    - Sharing injection equipment

Prevention & Health Promotion: PrEP, Clinical Eligibility (Oral)

- All of the following conditions must be met:
  - Documented negative HIV Ag/Ab test result within 1 week before initiation of PrEP
  - No signs/symptoms of acute HIV infection
    - Fever, fatigue, myalgia, skin rash headache, pharyngitis, cervical adenopathy, arthralgia, night sweats, diarrhea
  - Estimated creatinine clearance >30
  - No contraindicated medications

Prevention & Health Promotion: PrEP, Medication Options (Oral)

Daily, continuing, oral doses of Truvada (90 days or less supply)

Side Effects: headache, abdominal pain, weight loss

For men & transgender women at risk for sexual acquisition of HIV: daily, continuing, oral doses of Descovy (90 days or less supply)

Side Effects: Diarrhea

Prevention & Health Promotion: PrEP, Follow-Up Care (Oral)

1

Follow-up visits at least every 3 months to provide the following:

- HIV Ag/Ab test and HIV-1 RNA assay, medication adherence and behavioral risk reduction support
- Bacterial STI screening for MSM and transgender women who have sex with men (oral, rectal, urine, blood)
- Access to clean needles/syringes and drug treatment services for PWID

2

Follow-up visits every 6 months to provide the following:

- Assess renal function for patients aged > 50 years or who have an eCrCl <90 mL/min at PrEP initiation
- Bacterial STI screening for all sexually-active patients (vaginal, oral, rectal, urine, blood)

3

Follow-up visits every 12 months to provider the following:

- Assess renal function for all patients
- Chalmydia screening for heterosexual men and women (vaginal, urine)
- For patients on Descovy, assess weight, triglyceride and cholesterol levels

Prevention & Health Promotion: PrEP, Clinical Eligibility (Injectable)

- All of the following conditions must be met:
  - Documented negative HIV Ag/Ab test result within 1 week before initiation of PrEP
  - No signs/symptoms of acute HIV infection
  - No contraindicated medications or conditions

Prevention & Health Promotion: PrEP, Medication Options (Injectable)

- 600 mg cabotegravir administered as one 3 mL intramuscular injection in the gluteal muscle
  - Initial dose
  - Second dose 4 weeks after first dose (1 month follow-up)
  - Every 8 weeks thereafter (month 3, 5, 7, etc)

Prevention & Health Promotion: PrEP, Follow-Up Care (Injectable)

At follow-up visit 1 month after first injection:

- HIV Ag/Ab test & HIV-1 RNA assay

At follow-up visits every 2 months (beginning with the third injection):

- HIV Ag/Ab test & HIV-1 RNA assay
- Access to clean needles/syringes and drug treatment services for PWID

At follow-up visits every 4 months (beginning with the third injection)

- Bacterial STI screening for MSM and MTF who has sex with men (oral, rectal, urine, and blood)

At follow-up visits every 6 months (beginning with the fifth injection)

- Bacterial STI screening for all heterosexual men and women (vaginal, rectal, urine, blood)

At follow-up visits at least every 12 months:

- Assess desire to continue injections
- Chlamydia screening for heterosexual men and women (vaginal, urine)

Prevention & Health Promotion: PrEP, Follow-Up Care (Injectable)

- When discontinuing cabotegravir injections:
  - Re-educate on the tail and the risks during declining CAB levels
  - Assess ongoing HIV risk and prevention plans
  - If PrEP is indicated, prescribe daily Descovy or Truvada within 8 weeks after the last injection
  - Continue follow-up visits with HIV testing quarterly for 12 months

HIV Management: Rapid Initiation of ART

- Antiretroviral therapy (ART) should be initated at the time of diagnosis in ART-naive adults, ideally on the same day or within 72 hours (rapid initiation of ART).
- ART Goals:
  - Viral suppression, marked by HIV-1 RNA less than 200 copies
  - Immune reconstitution as measured by an increase in or maintenance of the CD4 cell count (>200)
  - Reduction in HIV-associated complications, including AIDS- and non-AIDS related conditions.

HIV Management: Risks of ART

- Tolerability Issues
- Long-term Toxicities
  - Renal Disease
  - Cardiovascular Disease
  - Decreased Bone Density (Uncertain Clinical Significance)
- Lifelong Adherence
  - Pill burden is high
- Immune Reconstiution Inflammatory Syndrome (IRIS)
  - New or worsening infectious and non-infectious complications observed after the initiation of ART.
  - Increased changes if ART is begun when CD4 counts are <100.

HIV Management: Protocol for Rapid ART Initiation

Clinician should confirm:

- Reactive POC HIV test result, confirmed HIV diagnosis, suspected acute HIV infection, or known HIV infection
- No prior ART or limited prior use of AR medications
- No medical conditions or opportunistic infections that require deferral (cryptococcal or TB meningitis)

Baseline Lab Testing:

- HIV Ag/Ab
- HIV Quant Viral Load
- Baseline HIV Genotypic Resistance TProfile
- CD4 Count
- HAV, HBV, HCV Testing
- CMP
- STIs
- UA
- HCG

HIV Management: Protocol for Rapid ART Initiation

Once initiated clinicians should obtain a viral load test after ART initiation to assess response and check adherence.

Follow-up within 24 to 48 hours by phone may assist with adherence.

A 7 day, in-person visit is recommended, if feasible.

HIV Management: Protocol for ART for Treatment Naive

- Biktarvy (single tablet, once daily)
- Descovy and Tivicay (two tablets, once daily)
- Symtuza (single tablet, once daily)

HIV Management: Protocol for ART for Exposure to PrEP

- Tivicay and Symtuza (two tablets, once daily)

HIV Management: Comprehensive Primary Care

- Patient education and encouragement regarding adherence to ART to maintain viral suppression.
- Monitoring for potential long-term effects of HIV and ART, such as bone density changes, dyslipidemia, weight gain, and renal dysfunction.
- Opportunistic infection prophylaxis.
- Identification and management of comorbidities.
- Ongoing surveillance for diseases transmitted through the same routes as HIV.
- Screening and treatment for substance use, including tobacco.
- Ongoing education on disclosure of HIV status; Undetectable – Untransmittable, pre- and post-exposure prophylaxis for sex partners, and harm reduction strategies.

HIV Management: Comorbidities, HEENT

- HEENT: ophthalmologic examination annually for CD4 count <50; annual dental exams
  - Cytomegalovirus (retinitis, vision loss, and death)
  - Varicella zoster virus and herpesvirus infections (retinitis and retinal necrosis)
  - Icterus (benign hyperbilirubinemia)
  - HIV viremia (retinopathy)
  - Kaposi’s sarcoma
  - Oral Candidiasis
  - HPV
  - Parotitis
  - Necrotizing gingivitis

HIV Management: Comorbidities, Heme/Lymph Management

- Heme/Lymph: widespread, firm, or asymmetrical lymphadenopathy requires prompt evaluation (including biopsy)
  - Lymphoma
  - Syphilis
  - TB
  - Mycobacterium avium-intracellulare infection
  - Lyphogranuloma venerum
  - *Diffuse large B-cell lymphoma*
  - *Burkitt lymphoma*
  - *Primary central nervous system lymphoma*

HIV Management: Comorbidities, Dermatologic & Neurologic Management

- Dermatologic: annual comprehensive skin exams
  - Shingles
  - Psoriasis
  - Seborrheic dermatitis
  - Atomic dermatitis
  - Eosinophilic folliculitis
  - Secondary syphilis
- Neurologic: annual neurologic and cognitive function exams
  - Progressive multifocal leukoencephalopathy
  - HIV-associated neurologic disease
  - Toxoplasmosis
  - Cryptococcal Meningitis

HIV Management: Comorbidities Respiratory, Psychosocial, Sexual Health, & Reproductive Management

Respiratory: annual lung exams

- Community-acquired pneumonia
- COPD

Psychosocial: annual psychosocial exams

- History to include sexual, trauma, substance use, and psychiatric history

Sexual Health: annual assessment of sexual health & history of STIs

Reproductive Status: annual discussions on contraception

HIV Management: Prophylaxis of Opportunistic Infections

Cryptococcosis & Cytomegalovirus: Primary prophylaxis not recommended

Mycobacterium avium Complex:

- Not recommended when viral load is undetectable or rapidly started on ART
- Discontinued when taking ART and CD4 >100 for >3 months
- **Preferred** azithromycin; clarithromycin

Pneumocystis Jiroveci PNA:

- CD4 count <200 or history of oropharyngeal candidiasis
- Discontinued when taking ART and CD4 >200 for >3 months
- **Preferred:** TMP/SMX single strength daily

Toxoplasma Gondi Encephalitis:

- CD4 count <100 and positive serology
- Discontinued when taking ART and CD4 >100 for >2 months
- **Preferred** TMP/SMX single strength daily

Community Resources for HIV Screening & Prevention

HIV testing is available in local health departments, at no charge.

North Carolina Communicable Disease Branch supports HIV Pre-Exposure Prophylaxis (PrEP) project

- Goal is to provide access to PrEP services to high-risk individuals.
- Developed a Statewide PrEP Advisory Committee
- Funded a PrEP Corrdinator

Community Resources for HIV Screening & Prevention: PrEP Coordinator

Increase	Increase awareness and availability of PrEP in their regions and statewide.
Ensure	Ensure providers are aware of PrEP and make apporpirate referrals and linkages to PrEP clinents.
Increase	Increase public awareness of PrEP.
Track	Track PrEP referrals and verify PrEP initial appointments, making effort to increase both.
Ensure	Ensure that 80% of their clients who start PrEP attend four medical appointments for PrEP annually.
Provide	Provide clinical training, capacity building, and technical assistance to providers.

Community Resources for HIV Management: Management, Medication & Housing Assistance

Federally funded Ryan White HIV/AIDS Program (RWHAP) provides HIV-related care and treatment for individuals unable to afford care.

The HIV Medication Assistance Program (HMAP) uses state and federal funds to provide medications to low-income residents living with HIV.

US Department of Housing and Urban Development's Housing Opportunities for Persons with AIDS Program (HOPWA) is available in NC.

Community Resources for HIV Management: North Carolina Engagement in Care Database for HIV Outreach (NC ECHO)

- NC ECHO is a component of NC's Health Resources and Services Administration HIV/AIDS Buero (HRSA HAB).
- Used to generate near real-time lists of people living with HIV who are out of care for linkage and re-engagement by state bridge counselors.
- Detects data gaps within the HIV surveillance system.
- Investigates patterns of record duplication.
- Generates viral suppression outcome measures for administrative groups of interest (HMAP, HOPWA, & Medicaid recipients)

How Community Resources Improve Care: Statistics

- Viral suppression in NC is 66%, higher than the national average.
- 85% of individuals receiving HIV care were virally suppressed.
- Ryan White Part B participants were 82.6% suppressed.
- Individuals participating in HMAP were 85.5% suppressed.

Case Study 1: 20, M

- Patient presents to clinic for potential STI exposure from his male partner.
  - PMHx: None
  - PSHx: None
  - Current Medications: None
  - Sexual History: homosexual/gay, reports no condom use, frequent STI exposure with documented treatment to several bacterial STIs.
  - POCT HIV: negative

Case Study 1: Question 1

- Based on presentation, is the patient an ideal candidate for PrEP, if so which option would best suit him?
  - A: No
  - B: Yes, any of the three options are appropriate for him
  - C: Yes, only Truvada
  - D: Yes, only Descovy

Case Study 1: Question 2

- You confirm that he is HIV negative and his remaining labs indicate he is a candidate for PrEP services. You both decide he wants to take the injectable. After his initial dose when should he come back for reevaluation?
  - A: 2 months after initiation
  - B: 6 months after initiation
  - C: 4 weeks (1 month) after initiation
  - D: 1 week after initiation

Case Study 1: Question 3

- After several months of adherence, the patient stops coming to receive his injections. He returns to the clinic 4 months after his last missed dose and asks to resume therapy. You test him for HIV and, he is positive. What should you do?
  - A: Initiate ART within 72 hours of testing
  - B: Restart injectable
  - C: Do nothing until test is confirmed
  - D: Refer to outside clinic, do not start medication.

Case Study 2: 45, M, HIV-1 +

- Patient presents to the clinic with an established HIV-1 diagnosis, with no detectable viral load. He reports daily adherence to his medication regimen. Last CD4 was at goal. He is here for his annual exam.
  - PMHx: HLD
  - PSHx: None
  - Current Medications: Biktarvy; Atorvastatin
  - Sexual History: heterosexual; married, 1 partner (on PrEP).

Case Study 2: Question 1

- During your visit, the patient admits he is struggling to pay for his medications. What assistance program can you recommend to him?
  - A: HIV Medication Assistance Program (HMAP)
  - B: Ryan White HIV/AIDS Program (RWHAP)
  - C: Both A & B

Case Study 2: Question 2

- During your exam, which of the following focused assessments should be conducted?
  - A: Lung examination
  - B: Cardiovascular examination
  - C: Sensations examination
  - D: Toenail examination

Case Study 2: Question 3

- What recommendations should you give your patient in regard to protecting his wife from an HIV infection?
  - A: Recommend her for PrEP services
  - B: Recommend adherence to medication to ensure he remains undetectable
  - C: Recommend condom use when possible
  - D: A, B, & C

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