Care CEUs

HIV in Clinical Practice: Screening, Treatment, and Patient Support

1. Which description best characterizes HIV based on its virology and impact on host cells?

A. A bacterial pathogen that produces toxins which directly destroy red blood cells and platelets
B. A double-stranded DNA virus that replicates independently in the cytoplasm of neutrophils without integrating into host DNA
C. An RNA lentivirus in the Retroviridae family that uses reverse transcriptase to integrate its genome into CD4+ T lymphocytes, progressively weakening the immune system
D. A single-stranded DNA virus that remains extracellular and damages tissues via secreted enzymes rather than entering host cells

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2. A nurse is explaining how HIV is transmitted. Which teaching statement is most consistent with the course content?

A. HIV is easily transmitted through casual contact such as sharing phones or touching objects previously handled by an infected person
B. HIV is routinely transmitted through intact skin contact with sweat and tears from a person living with HIV, even without visible blood
C. HIV spreads primarily through airborne droplets during coughing or sneezing, which is why mask use is the main prevention strategy
D. HIV is transmitted when infected blood, semen, vaginal or rectal fluids, breast milk, or other specified body fluids enter another person’s bloodstream, but it is not transmitted through hugging, using public bathrooms, or swimming pools

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3. Which statement accurately reflects the differences between HIV-1 and HIV-2 as described in the content?

A. HIV-2 generally progresses more slowly, is less easily transmitted, is concentrated in West Africa, and is resistant to some medications used for HIV-1
B. HIV-2 causes a more aggressive disease course than HIV-1, is responsible for approximately 95% of global infections, and is highly sensitive to all first-line HIV-1 regimens
C. HIV-1 is largely confined to West Africa, while HIV-2 accounts for most infections worldwide and has nearly identical drug-susceptibility profiles to HIV-1
D. HIV-1 and HIV-2 share more than 90% genomic similarity, so they are treated identically with the same regimens and have similar global distributions

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4. Which route accounts for most HIV transmission worldwide, according to the course content?

A. Household contact with shared linens and eating utensils

B. Occupational exposure from needle-stick injuries in healthcare workers
C. Sexual contact involving exposure to infected genital or rectal secretions
D. Vector-borne transmission through mosquito and other insect bites

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5. A pregnant patient living with HIV asks about the risk of transmitting HIV to her baby. Which response best reflects current data in regions with good access to care?

A. With appropriate antiretroviral medications to reduce viral load and good prenatal care, perinatal transmission rates can be reduced to about 1% or less in the United States and Europe
B. Perinatal transmission is no longer a concern in any region because current medications completely eliminate the risk to the fetus and infant
C. Transmission during pregnancy has been eradicated, but HIV is still commonly passed to infants during breastfeeding even when the mother is on treatment
D. The risk of perinatal transmission is the same in all countries regardless of access to prenatal care or HIV testing because viral load cannot be modified during pregnancy

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6. Which sexual behavior is described in the course as having the highest risk for HIV transmission?

A. Vaginal intercourse with consistent condom use and no genital lesions
B. Insertive oral sex with use of a condom and no ejaculation in the mouth
C. Receptive anal intercourse with an HIV-positive partner or partner of unknown status
D. Kissing on the lips without any open sores or bleeding gums

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7. Which factor most strongly increases the likelihood that an individual with HIV will transmit the virus to others?

A. A low viral load under 200 copies/mL maintained for more than three years while on consistent ART
B. A stable CD4+ cell count above 500 cells/mm3 with long-term viral suppression on ART
C. A history of HIV infection more than 10 years ago with no current detectable virus on standard assays
D. A high plasma viral load, particularly during the acute phase of infection before the person realizes they are infected

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8. A couple asks whether they need to worry about HIV transmission if the partner with HIV has a viral load under 200 copies/mL on ART. Which statement aligns with the evidence presented?

A. Transmission risk remains extremely high even when viral load is below 200 copies/mL, so abstinence is the only recommended option
B. Large studies of thousands of couples found no documented sexual transmissions when the partner with HIV had a stably suppressed viral load below 200 copies/mL
C. Transmission is common at viral loads under 200 copies/mL, but it can be avoided by limiting intercourse to oral sex

D. Viral load does not correlate with transmission risk, so suppression below 200 copies/mL does not change counseling recommendations

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9. A patient presents 3 weeks after a high?risk exposure with fever, sore throat, rash, night sweats, and diarrhea. Which interpretation best fits the acute HIV phase described in the content?

A. The presence of fever and rash excludes acute HIV, which is characterized by completely asymptomatic seroconversion in almost all patients
B. The timing rules out acute HIV because symptoms of acute HIV never appear before 6 weeks after exposure
C. These symptoms indicate that the patient is already in the AIDS stage, which typically occurs within the first month after infection
D. These nonspecific, often self-limited symptoms occurring 2–4 weeks after exposure are consistent with acute HIV infection, when about 90% of patients have at least one symptom

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10. Which clinical finding is highlighted as a characteristic feature of acute HIV infection?

A. Shallow mucocutaneous ulcers with a white base and erythematous border on oral, anal, penile, or esophageal mucosa
B. Chronic progressive peripheral edema and ascites due to portal hypertension
C. Generalized hyperpigmented plaques with overlying silvery scale on extensor surfaces
D. Painless vesicular lesions limited to the palms and soles that resolve within 24 hours

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11. Which combination of laboratory and clinical criteria best supports a diagnosis of AIDS as described in the course?

A. Any confirmed HIV infection with a CD4+ count above 500 cells/mm3 and no opportunistic infections
B. Presence of an AIDS-defining condition such as Pneumocystis jirovecii pneumonia or Kaposi sarcoma, often in the setting of CD4+ count below 200 cells/mm3
C. Isolated chronic diarrhea with normal CD4+ cell count and no evidence of HIV infection
D. A one-time viral load above 1,000 copies/mL in the absence of opportunistic infections and normal CD4+ count

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12. A 30-year-old patient tests positive for HIV with a CD4+ count of 550 cells/mm3 and no symptoms. How should the nurse interpret this stage using the staging system in the content?

A. Stage 3 HIV, because symptoms are absent and viral load, not CD4+ count, defines stage 1 or 2
B. Stage 2 HIV, because any CD4+ count above 200 cells/mm3 automatically defines stage 2 disease
C. Stage 1 HIV, because the CD4+ count is at or above 500 cells/mm3 and the patient is asymptomatic or has only generalized lymphadenopathy
D. Stage 4 HIV, because the presence of any positive HIV test is categorized as AIDS until proven otherwise

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13. According to the CDC recommendations cited, which HIV testing strategy best reduces missed diagnoses and stigma in routine care?

A. Testing only patients who self-identify as men who have sex with men or who specifically request HIV testing
B. Offering routine, opt-out HIV testing to all patients at least once between ages 13 and 64, with repeat testing for individuals at higher risk
C. Limiting HIV testing to patients with advanced symptoms or an opportunistic infection to conserve resources
D. Using a detailed behavioral risk questionnaire to determine eligibility for HIV testing and excluding low?risk populations

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14. A patient had a high-risk exposure 10 days ago and now has flu-like symptoms. Which test is most appropriate to detect early HIV infection at this time?

A. Fourth-generation laboratory-based antigen/antibody test, which cannot detect infection until at least 30 days after exposure
B. Rapid antibody-only test based on fingerstick, which is most sensitive within the first 7 days after exposure
C. HIV nucleic acid amplification test (NAT), which can detect HIV RNA about 6–8 days after infection
D. Saliva-based antibody test, which has the shortest window period among all HIV tests

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15. A nurse receives a negative fourth-generation antigen/antibody HIV test 15 days after a documented high?risk exposure. How should this result be interpreted?

A. It indicates that a positive NAT is likely, but no repeat testing is recommended once a fourth-generation test is negative
B. It definitively rules out HIV infection because all fourth?generation tests detect infection within 7 days
C. It confirms the presence of acute HIV infection because early tests are always falsely negative
D. It may fall within the window period, so the test should be repeated after the window period has passed to reliably exclude infection

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16. Which element is emphasized as essential in the initial evaluation visit immediately after HIV diagnosis?

A. Focusing solely on physical examination and deferring any discussion of sexual health, mental health, or social support until viral load is suppressed
B. Waiting for complete resistance genotyping before discussing ART or assessing social determinants of health
C. Rapid initiation planning for ART plus a comprehensive history including sexual behaviors, substance use, mental health, potential exposed partners, and barriers such as housing or transportation

D. Initiating opportunistic infection prophylaxis for all patients, regardless of CD4+ count or clinical presentation, before any history is obtained

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17. According to the preferred initial treatment approach in the course, which regimen type is recommended for most newly diagnosed HIV-1 patients?

A. A regimen consisting solely of non-nucleoside reverse transcriptase inhibitors (NNRTIs) without NRTIs or INSTIs
B. Monotherapy with a single NRTI to minimize pill burden and drug interactions
C. Protease inhibitor monotherapy initiated only after CD4+ count falls below 200 cells/mm3
D. An integrase strand transfer inhibitor (INSTI) combined with two nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs) as triple therapy

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18. A patient on stable ART has a single viral load of 150 copies/mL after years of undetectable results. How should this be managed based on the content?

A. Interpret this as laboratory error and avoid any repeat viral load testing
B. Immediately discontinue the current ART regimen and switch to third-line salvage therapy
C. Assume this confirms virologic failure and start prophylaxis for all major opportunistic infections
D. Recognize this as a likely transient viral 'blip' that does not require a change in ART if subsequent tests return to undetectable

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19. Which scenario meets the definition of virologic failure as described in the course?

A. Failure of CD4+ count to rise above 500 cells/mm3 within three months of starting ART despite an undetectable viral load
B. Any detectable viral load above 20 copies/mL at any single time point after ART initiation
C. A viral load of 150 copies/mL once, followed by results below 200 copies/mL without changes in therapy
D. HIV RNA persistently above 1,000 copies/mL on two tests three months apart after at least six months on the same ART regimen

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20. At what CD4+ T-cell threshold does the content recommend prophylaxis against Pneumocystis jirovecii pneumonia for patients with HIV?

A. When CD4+ count is between 350 and 500 cells/mm3, regardless of clinical symptoms
B. When CD4+ count is below 200 cells/mm3 or less than 14%, particularly in the presence of thrush
C. Only when CD4+ count falls below 50 cells/mm3, regardless of clinical context
D. Prophylaxis is not indicated if viral load is suppressed, regardless of CD4+ count

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21. A patient without HIV has a regular sexual partner who is HIV-positive and has not always used condoms. According to the course, what is the most appropriate prevention strategy to

discuss?

A. Waiting for symptoms to develop before testing for HIV and then starting PrEP if symptoms suggest acute infection
B. Initiation of pre-exposure prophylaxis (PrEP) after confirming HIV-negative status, with ongoing HIV testing every three months while on oral PrEP
C. Relying solely on emergency PEP after unprotected sex rather than any ongoing preventive medication
D. Avoiding HIV testing to reduce anxiety and focusing only on periodic STI screening

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22. A patient presents to the emergency department 36 hours after a needle-sharing incident with a partner of unknown HIV status. What does the content recommend?

A. Recommend PrEP instead of PEP because the exposure has already occurred
B. Delay any intervention until an HIV antibody test becomes positive, as early ART could mask infection
C. Give a single dose of an NNRTI and reassure the patient that no further follow-up is needed
D. Start post-exposure prophylaxis (PEP) with at least three antiretroviral drugs as soon as possible, within 72 hours of exposure, and continue for 28 days

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23. A nurse sustains a needle-stick injury from a patient known to have HIV. According to the course, which statement about occupational HIV risk and management is accurate?

A. Because standard precautions were used, there is no need for PEP, baseline HIV testing, or reporting to public health authorities
B. Any splash of bodily fluid on intact skin carries the same transmission risk as a deep needle-stick, so PEP is always required
C. Occupational HIV transmission is common, with thousands of documented U.S. cases, making routine PEP unnecessary due to inevitability
D. Needle-stick injuries carry about a 1% risk of HIV transmission, and the exposed worker should receive a 28-day PEP regimen started within 72 hours, with follow-up testing and toxicity monitoring

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24. Which infection-prevention behavior is emphasized as the single most important intervention to prevent transmission of HIV and other bloodborne pathogens in healthcare settings?

A. Wearing double gloves for every patient contact regardless of anticipated exposure
B. Consistent performance of hand hygiene, using soap and water for 40–60 seconds when indicated or alcohol-based hand rubs between patient contacts
C. Using N95 respirators for all patient interactions, including non-respiratory conditions
D. Sterilizing and reusing single-use needles and syringes in low-resource settings to minimize waste

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25. Which ART prescribing consideration for abacavir is specifically highlighted in the course?

A. Patients must be tested for the HLA-B*5701 allele before starting abacavir because carriers are at risk for serious hypersensitivity reactions
B. Abacavir is recommended for patients with significant cardiovascular disease because it lowers cardiovascular risk
C. Abacavir is preferred for patients with renal failure requiring dialysis because it is renally protective
D. Abacavir can be started without any baseline laboratory testing because hypersensitivity reactions are extremely rare and unrelated to genetics

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26. A patient has HIV and chronic hepatitis B coinfection. Based on the course content, which ART principle is most appropriate?

A. Use a tenofovir-containing ART regimen because tenofovir suppresses hepatitis B replication and avoid regimens with lamivudine or emtricitabine without tenofovir due to rapid HBV resistance
B. Avoid tenofovir entirely because it has no activity against hepatitis B and accelerates HBV resistance
C. Use lamivudine monotherapy to treat both HIV and hepatitis B because it suppresses both viruses long term without resistance
D. Delay ART until hepatitis B is fully treated, since concurrent treatment is contraindicated

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27. Which long-acting HIV medication pairing and dosing interval correctly matches the description in the content?

A. Cabotegravir plus rilpivirine (Cabenuva) administered every 1–2 months as a long-acting injectable ART regimen
B. Oral lenacapavir (Sunlenca) taken once weekly as the primary recommended long-acting ART for all new patients
C. Cabotegravir (Apretude) injections required daily for one month and then annually for maintenance
D. Lenacapavir (Yeztugo) injections every week for PrEP, as shorter intervals show superior adherence

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28. Which set of interventions is specifically cited as improving adherence to ART in patients struggling with consistent medication use?

A. Withholding information about side effects to avoid discouraging the patient from taking ART
B. Frequent unscheduled regimen changes without explanation to keep the patient engaged
C. Counseling and support groups, home health nurse visits, blister-packaging of medications, and automated medication reminders
D. Encouraging patients to stop ART periodically to reduce pill fatigue and then restart when they feel symptomatic

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29. Which harm-reduction and support strategies are recommended for patients with HIV who have substance use disorders?

A. Providing access to naloxone, safe injection education, drug test strips, syringe exchange or safe injection sites, and referral for opioid, alcohol, or tobacco use disorder treatment
B. Requiring proof of complete abstinence from all substances before initiating or continuing ART
C. Avoiding any discussion of substance use to maintain rapport and prevent patient disengagement from care
D. Discontinuing ART when substance use is disclosed to prevent drug–drug interactions with addiction treatments

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30. A clinic wants to improve long-term retention in HIV care. Which strategy from the course is supported by evidence?

A. Reducing communication with patients after viral suppression to decrease dependence on the healthcare system
B. Scheduling visits only when patients call to request them, to promote self-management and reduce staff workload
C. Actively contacting patients who miss appointments and using brief messages, posters, or brochures emphasizing the importance of ongoing HIV follow-up
D. Limiting services like buprenorphine treatment or navigator programs because they distract from HIV-specific care

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