



Continuing Education (CEU) course for healthcare professionals. View the course online at wildirismedicaleducation.com for accreditation/approval information, course availability and other details, and to take the test for CE credit. The information provided in this course is to be used for educational purposes only. It is not intended as a substitute for professional healthcare.

Contact Hours: **1**

HIV/AIDS for Florida Healthcare Professionals

COPYRIGHT © 2017, WILD IRIS MEDICAL EDUCATION, INC. ALL RIGHTS RESERVED.
BY Judith Swan, MSN, BSN, ADN, RN; Nancy Evans, BS

LEARNING OUTCOME AND OBJECTIVES: Upon completion of this course, you will have increased your knowledge of HIV/AIDS in order to better care for your patients. Specific learning objectives include:

- Discuss the incidence of HIV/AIDS in Florida.
- Outline the etiology and stages of HIV infection.
- Describe modes of transmission for HIV.
- Summarize the HIV testing-related requirements of the Florida Omnibus AIDS Act.
- Explain the clinical management of HIV/AIDS.

HIV/AIDS INCIDENCE

Data collected in 2015 reveals that 39,513 people in the United States were diagnosed with infection by the human immunodeficiency virus (HIV). There were 31,991 diagnoses among adult and adolescent males 13 years or older, 7,402 among adult and adolescent females, and 120 among children younger than 13 years.

At the end of 2013, there were an estimated 1,242,000 adults and adolescents living with HIV in the United States. The CDC estimates 51% of those living with HIV do not know they are infected and are at high risk for transmitting the virus to others. In 2014, CDC statistics indicate 6,721 deaths occurred that were attributed directly to HIV (CDC, 2016a).

HIV has been reported in all 50 states, the District of Columbia, and U.S. dependencies. It has not, however, been uniformly distributed, with the highest burden among the southern states. The South generally is behind other regions in some key HIV prevention and care indicators, which accounts for this increased burden. In 2015, the South accounted for 52% of the new AIDS diagnoses despite having only one third of the total national population. It was followed by the Northeast, the West, and the Midwest (CDC, 2016b).

HIV/AIDS in Florida

In 2015, Florida ranked first in the nation for the number of new HIV infections (4,868) and first in the nation for newly diagnosed AIDS cases (2,775). Approximately 127,589 persons in Florida are living with HIV, of which 15,821 are estimated to be unaware of their HIV status. The five counties reporting the highest number of HIV cases were Miami-Dade, Broward, Orange, Palm Beach, and Duval, although the HIV/AIDS epidemic is prevalent throughout Florida (FL DOH, 2015a).

AFRICAN AMERICANS

HIV/AIDS has hit the black/African American population in Florida disproportionately hard.

- The rate of HIV infection is nearly six times higher among black men than the rate among white men.
- In 2015, blacks accounted for 44% of newly diagnosed HIV infection cases even though they comprised only 14% percent of the state's population.
- Among black women, the HIV case rate is nearly 14-fold greater than the rate among white women.
- Approximately 1 in 58 non-Hispanic black males and 1 in 83 non-Hispanic black females in Florida are living with HIV/AIDS.
- Blacks constitute a majority of HIV-related deaths (57%) in Florida.
- HIV/AIDS has been the leading cause of death among black women aged 25 to 44 years. (FL DOH, 2016)

OLDER ADULTS

In 2014, 33% of all new HIV infections reported in Florida were among persons aged 50 or older. Persons aged 50 or older accounted for 44% of all people living with HIV disease in Florida through 2013. Of the 1,422 deaths of persons with HIV infection, 63% were among persons aged 50 or older (FL DOH, 2015b).

ETIOLOGY OF HIV INFECTION

The human immunodeficiency virus (HIV) is like most other viruses contracted by humans, but with one important difference—the body's immune system can destroy most viruses and clear them from the body, but that is not true for HIV. The immune system cannot get rid of HIV because the virus particles attack a key component of the system, the CD4⁺ T-cells, invade them, use them to produce copies of themselves, and then destroy those cells.



The virus particles that invade the host cells are called virions, consisting of RNA or DNA surrounded by a protein shell. Once the virion invades a host cell, it turns it into a viral “factory.” The infected host cell is then referred to as the provirus, a viral cell that can lie dormant for years until it is activated (Encyclopaedia Britannica, 2015).

STAGES OF HIV INFECTION

- **Acute HIV infection stage** is the time period immediately following infection with the virus. HIV replication is very rapid in the six to eight weeks after acquiring HIV infection and results in a high amount of HIV in the blood (viral load). During this time, the infected person may be symptom-free and unaware of the infection but at high risk of transmitting HIV to others. This interval of time is often referred to as the **window period**—the time before the immune system produces antibodies that can be detected by HIV testing.
- **Clinical latency stage** is also referred to as “asymptomatic HIV infection” or “chronic HIV infection.” During this period, the person experiences no symptoms or only mild ones. Once infected, however, the person remains infectious for life (Sax, 2016; USDHHS, 2016a).
- **Acquired immunodeficiency syndrome (AIDS)** refers to a state of advanced immunosuppression, a complex condition caused by HIV, that progressively destroys the body’s ability to fight infection and disease. The average time from HIV acquisition to AIDS is 8 to 10 years (Bartlett, 2016).

TRANSMISSION OF HIV

Contrary to myths and misinformation, HIV is not transmitted by casual contact. Insects do not carry HIV, nor is the virus transmitted through air or water. HIV is a relatively fragile virus that has a very short lifespan once outside the human body. In terms of the classic “chain of infection,” three links are necessary for the transmission of HIV:

1. An HIV source
2. A sufficient dose (viral load) of virus
3. Access to the bloodstream of another person

Varying levels and concentrations of HIV have been found in most body fluids of infected persons, including blood, semen, saliva, tears, breast milk, and vaginal and cervical secretions. Healthcare workers may also be exposed to some other body fluids with high concentrations of HIV, including amniotic, cerebrospinal, pericardial, pleural, and synovial fluids. However, **only four body fluids have been proven to transmit HIV infection:**

- Blood
- Semen



- Breast milk
- Vaginal and cervical secretions

Sexual Contact

Transmission of HIV occurs primarily through sexual contact with an infected person. This includes anal, oral, and vaginal contact. The risk of transmission depends on sexual practices. Receptive anal contact without a latex condom carries the greatest risk, probably because of the larger surface area of mucous membranes involved. Receptive partners are at greater risk for transmission of any sexually transmitted infection, including HIV.

Injection Drug Use

Sharing injection needles, syringes, and other paraphernalia with an HIV-infected person can send HIV directly into the user's bloodstream (along with hepatitis B and C viruses and other bloodborne diseases). Paraphernalia with the potential for transmission include the syringe, needle, "cooker," cotton, and/or rinse water (sometimes called *works*).

Transmission also occurs through indirect sharing of contaminated paraphernalia and/or dividing a shared or jointly purchased drug while preparing and injecting it. Indirect sharing includes squirting the drug from a dirty syringe back into the drug cooker and/or someone else's syringe, or sharing a common filter or rinse water (Cohen, 2016).

Transfusion

Since 1985, transmission of HIV through transfusion has been uncommon in the United States and in other countries where blood is screened for HIV antibodies. The risk is estimated conservatively to be 1 in 1.5 to 2 million. Rare cases of HIV infection from transfusion have still been reported, however, most recently in 2008 (Kleinman, 2016).

Perinatal

An HIV-infected pregnant woman can transmit the virus to her fetus. Perinatal HIV transmission can happen at any time during pregnancy, labor, delivery, and breastfeeding (CDC, 2016c).

Occupational Exposures

The acquisition of HIV infection in the workplace is extremely rare. There have been only 58 cases reported in the United States. The most recent confirmed case was reported in 2008 and is the first one reported since 1999.

Healthcare workers exposed to HIV from a contaminated needlestick have a 0.2% risk of becoming infected. The risk of acquiring HIV infection following exposure due to splashes with



body fluids is thought to be near zero even if the fluid is overtly bloody. According to the CDC, the risk of infection varies on a case-by-case basis. Factors affecting the risk include:

- Whether the exposure was from a hollow-bore needle or other sharp instrument
- Whether it involved exposure to nonintact skin or to mucous membranes (such as eyes, nose, and/or mouth)
- The amount of blood involved
- The amount of virus present in the source's blood
(CDC, 2015)

(See also “Occupational Infection Control” later in this course.)

HIV TESTING

HIV testing is the first step in halting the spread of the virus. Testing is critical to the country's prevention strategy. It is the only way the nearly 15% of Americans living with HIV who do not know they are infected can be diagnosed, and it is the first step in connecting them to the services for the prevention, care, and treatment that they require.

Who Should Be Tested?

Testing is essential for anyone who has had a potential exposure to HIV. This includes anyone who has had unprotected anal, vaginal, or oral sex; who has shared needles or other injection drug preparation equipment; or who has had an occupational exposure. People with partners who have such risk factors should also consider testing.

In addition to the above primary high-risk groups, Florida law provides for testing special populations.

PREGNANT WOMEN

Florida's Targeted Outreach for Pregnant Women Act (TOPWA) was established in 1999 to assist women who may not receive prenatal care, who suffer from substance abuse problems, or who are infected with HIV by linking them to much needed services to ensure their babies are born healthy. TOPWA is unique in that outreach workers are employed to go out into the community and enroll pregnant women who have not yet accessed prenatal care. The TOPWA program has increased poor women's access to prenatal care, including HIV testing and antiviral therapy, reducing the number of babies born with HIV infection from 37 in 2001 to 9 in 2015.

During the 2014–15 fiscal year, the outreach program administered 3,025 HIV tests, performed 3,006 pregnancy tests, and enrolled 1,999 pregnant women into the TOPWA program. Of the 1,999 women enrolled, 176 were HIV positive (FL DOH, 2015c).



CORRECTIONAL POPULATIONS

Florida Statute 945.355 mandates that prisons test inmates for HIV within 60 days before they are released back into the community. (Unlike prisons, jails are not required to test inmates unless they have been convicted of a sex-related crime.) Those who test positive must be provided with transitional assistance, which includes:

- Education on preventing transmission of the virus to others and on the importance of follow-up care and treatment
- A written, individualized discharge plan that includes referrals to and contacts with the county health department and local HIV primary care services in the area where the inmate plans to reside
- A 30-day supply of all HIV-related medications that the inmate is taking prior to release under the protocols of the Department of Corrections and the treatment guidelines of the United States Department of Health and Human Services

Types of HIV Tests

There are three main types of HIV tests:

- Antibody tests
- Nucleic acid tests
- Combination or fourth-generation tests

ANTIBODY TESTS

Antibody tests (immunoassay) are the most commonly used. They look for antibodies in blood or oral fluid or urine produced by the host body against HIV, but not HIV itself. It can take 3 to 12 weeks for a person's body to make enough antibodies for an antibody test to detect HIV infection.

Rapid HIV tests produce results in 30 minutes or less. Until these rapid tests became available, many people being tested in public clinics did not return to get their test results. Making results available during the testing appointment means that people can take immediate precautions to prevent transmission to their sexual partners. In addition, the oral fluid test offers another option for those people who may fear a blood test.

The **urine HIV** testing procedure is intended for use with urine samples only and must not be used with other bodily fluids (CDC, 2016d).



NUCLEIC ACID TESTS (NATS)

These tests detect HIV most quickly by looking for HIV (the antigen) in the blood before antibodies have had time to develop against it. The tests are highly sensitive and specific for viral nucleic acids, both RNA and DNA, and detect them earlier than other screening methods. It can take 7 to 28 days after infection for NATs to be able to detect HIV. This can be ordered as a follow-up test, after a positive antibody test, or as part of a clinical workup (CDC, 2016d).

COMBINATION TESTS

Combination tests are able to detect both the HIV-1 antigen and the HIV-1/HIV-2 antibodies in blood only. These tests are recommended for use in laboratories and are becoming more common in the United States.

CONFIRMATION TESTING

HIV testing is a two-step process. When an initial screening test performed in a laboratory is positive, the laboratory will usually conduct follow-up testing on the same blood specimen as the initial test. When an initial screening HIV test is a rapid test and is positive, the person will be directed to get follow-up testing to ensure the diagnosis is correct (CDC, 2016d).

Testing and Informed Consent in Florida

The Florida Omnibus AIDS Act of 1988 was enacted to address the AIDS epidemic and directly affects doctors, nurses, and other healthcare professionals. It is based on the premise that education of the public about HIV transmission, risks for contracting, and voluntary treatment is the best method for controlling the spread of HIV. The Act seeks to:

- Encourage people to seek out HIV testing by ensuring privacy
- Prohibit HIV testing without a person's consent or knowledge
- Provide for special management and control of HIV test results
- Prevent discrimination of persons with HIV or thought to have HIV in employment, housing, public services, public accommodation, and life and health insurance

OBTAINING CONSENT

Before anyone can be tested for HIV in Florida, **they must be informed about and explicitly consent to be tested.** Consent need not be in writing provided there is documentation in the medical record that the test has been explained and consent given. Testing without informed consent can result in disciplinary action by a healthcare professional's licensing board, fines, suspension or revocation of license, and civil liability for negligence and invasion of privacy.



A general consent to draw a patient's blood and run unspecified tests **does not** meet the Florida criteria of informed consent for HIV testing.

To obtain informed consent, an explanation of the HIV test must be provided in a manner appropriate to the age, mental capacity, and language skill of the subject. As a matter of law, healthcare providers must convey three pieces of information as part of the process:

- That the patient may secure HIV testing at a site that tests anonymously, and make those locations available
- Relate the extent of confidentiality rights that adhere to the test results in the provider's patient records
- That if the test results are positive, the provider is required to report the test subject's name to the local county health department

A separate statute designed to eliminate "unnecessary diagnostic testing" may make an HIV test illegal even when informed consent is granted. This law forbids diagnostic tests "which are not reasonably calculated to assist the healthcare provider in arriving at a diagnosis and treatment of a patient's condition." It is also forbidden to test for evidence of HIV infection "solely for the purpose of protecting healthcare workers."

Minors

Parental permission is not required for unemancipated children under 18 who are judged by a healthcare professional to be sufficiently mature to consent to or refuse an HIV test. Infants and young children are considered to be unable to make an informed decision, and consent of their parents or legal guardian is required.

Florida law forbids informing parents of a minor's HIV test results either directly or indirectly (such as sending a bill for testing or treatment without the minor's consent). It is up to the healthcare professional to decide whether the minor is capable of understanding the risks and benefits of the test or treatment.

During Pregnancy

The Florida Omnibus AIDS Act established the current system of **opt-out testing** for all women who are pregnant. Under this system, women who are pregnant are advised that their healthcare professional will conduct an HIV test but that they have the right to refuse testing. Any woman who is pregnant may submit a **written** refusal for testing, and her refusal must be placed in her medical record. These rules require repeat testing procedures at 28 to 32 weeks of gestation for all sexually transmissible infections, including HIV.



TESTING WITHOUT INFORMED CONSENT

HIV testing without informed consent may occur in the following circumstances:

- **Emergencies:** Bona fide medical emergencies in which treatment is indicated by HIV status
- **Therapeutic privilege:** When the provider's medical record documents that obtaining informed consent would be detrimental to the health of a patient suffering from an acute illness and that the test results are necessary for medical diagnostic purposes to provide appropriate care or treatment to the patient
- **Sexually transmissible diseases:** For convicted prostitutes, inmates prior to release, and certain medical examiner cases, including court-ordered autopsies
- **Criminal acts:** When victims of criminal offenses involving transmission of body fluids obtain a court order to test a defendant
- **Organ and tissue donations:** For certain blood and tissue donations, sperm donations, corneal removals, and eye enucleations
- **Research:** For established epidemiologic research methods that ensure test subject anonymity
- **Significant exposures:** In the event of a significant exposure to medical or nonmedical personnel providing help in an emergency and in which the victim has expired during treatment for the emergency
- **Abandoned infants:** When parents cannot be located after reasonable attempts (the reason why consent could not be obtained must be documented in the medical record and test result must be provided to the parent[s] or guardian once they are located)
- **Repeat HIV testing:** When performing HIV testing to monitor the clinical progress of a patient previously diagnosed as HIV-positive or repeat HIV testing conducted to monitor possible conversion from a significant exposure
- **Judicial authority:** When a court orders that an HIV test be performed without the individual's consent

CONFIDENTIALITY

Anonymous and confidential HIV tests are available at Florida county health departments and other registered testing sites. County health departments and registered testing sites are required to provide private pre- and posttest counseling for all persons tested. Confidential HIV tests are also increasingly available in private-sector doctors' offices and hospitals.



Superconfidentiality

Medical records are, by law, confidential. The Florida Omnibus AIDS Act designates information about HIV testing as superconfidential. Superconfidentiality does not refer to every piece of medical information pertaining to a person who has been tested for HIV or assessed for AIDS. Only the fact that an HIV test was performed on an identifiable individual and any HIV test result (negative as well as positive) are specifically protected.

There are four special handling requirements unique to HIV test results:

1. Providers may disclose HIV test results when the test subject, in writing, specifically authorizes the release to a third party.
2. HIV test results may be released upon court-ordered subpoena.
3. A warning statement must accompany the disclosure of HIV test information indicating that state law prohibits further disclosure of such information without specific written consent of the test subject.
4. “Need to know” limits access to HIV test results to those who either provide patient care, conduct administrative tasks supportive of such care, or handle body fluids or tissues.

Any disclosure that does not fall within one of the above permitted situations is prohibited.

Permitted Disclosure

Disclosure of HIV test results is limited to the following:

- The test subject and his or her representative
- A newborn’s medical record (mother’s HIV status)
- The Department of Health
- A patient’s sex or needle-sharing partner
- Authorized medical and epidemiologic researchers (repeat tests may be given to monitor clinical progress without seeking renewed consent)
- Hospital staff, administrators, and healthcare workers who provide aid and care to the subject, **on a need-to-know basis** (this is especially important in cases of significant exposure to body fluids by healthcare workers)
- To appropriate authorities in the course of reporting child sexual abuse or neglect
- Adults responsible for a child who is placed in foster care or for adoption



- An exposed healthcare worker who exercises the right to subpoena the medical records of the patient and demand that HIV status be determined
- Healthcare facilities and providers involved with the transfer of human body parts and tissues
- Peer review and health program monitoring
- Within correctional facilities
- Healthcare professionals reporting to public health authorities
- Medical examiners

Breaches of Confidentiality

It is a **first-degree misdemeanor** (subject to up to one year of imprisonment) for anyone, whether a licensed professional or not, to violate the Florida Omnibus AIDS Act confidentiality requirements; the language does not require the violation to be intentional. An amendment to the Act makes it a **third-degree felony** for anyone who maliciously, or for monetary gain, breaches the confidentiality of sexually transmitted disease information. In addition, the Florida Supreme Court held that anyone may be sued for negligence and other causes of action based on violation of the Act's duty of confidentiality.

NOTIFICATION OF TEST RESULTS

The healthcare professional ordering an HIV test must now ensure that all reasonable efforts are made to notify the person tested of the results, relating information to the test subject for both negative and positive test results.

Providers may determine on their own how to notify their patients of their HIV test results, while still conforming to the Act's strict confidentiality requirements. This may be done using a telephone call-in system involving a unique code number that the patient must use as a condition for disclosure of test results.

POSTTEST COUNSELING

When a person tests positive for HIV, counseling the test subject is required and must include information on the following:

- Availability of appropriate medical and support services
- Importance of notifying partners who may have been exposed
- Prevention of the transmission of HIV



Counseling someone who has just learned of his or her HIV-positive status requires not only that the healthcare professional be familiar with local HIV health and social services but also that the caregiver has the ability to communicate with clarity, sensitivity, and compassion.

The Florida Department of Health has developed “Model Protocols on Counseling and Testing” (see “Resources” at the end of this course).

OCCUPATIONAL INFECTION CONTROL

Standard Precautions are used to prevent HIV transmission in healthcare settings. They include precautions to be used with all patients at all times and in all settings as well as transmission-based precautions to be used when specific modes of transmission are present (e.g., Contact Precautions or Droplet Precautions).

These precautions include:

- Routine use of barriers (such as gloves and/or goggles) when anticipating contact with blood or body fluids
- Washing hands and other skin surfaces immediately after contact with blood or body fluids
- Careful handling and disposing of sharp instruments during and after use

In addition, the Occupational Safety and Health Administration’s (OSHA) **Occupational Exposure to Bloodborne Pathogens Standard** is designed to protect workers from risk of exposure to bloodborne pathogens, such as HIV and HBV.

Florida also requires training for employees who are occupationally exposed to blood or other potentially infectious material (OPIM) and includes:

- Careful handling and disposal of sharp instruments during and after use
- Recommendations for housekeeping and waste disposal
- Handling contaminated laundry
- Handling of regulated waste

Any healthcare worker who receives a needlestick or other significant exposure to potential HIV, herpes simplex virus (HSV), or hepatitis B virus (HBV) infection should follow the employer’s protocol, which is based on guidelines issued by the U.S. Public Health Service (USPHS) (Kuhar et al., 2013).

Prompt action is essential because in some cases postexposure prophylaxis may be recommended to start as soon as possible. The extent of the exposure, treatment, follow-up care, personal



prevention measures, need for a tetanus shot, and other care matters should be discussed with a healthcare professional.

When occupational exposure to HIV occurs, the USPHS recommends the following **postexposure prophylaxis (PEP) guidelines**:

- Determine, if possible, the HIV status of the exposure source patient to guide the need for HIV PEP.
- Start PEP medication regimens as soon as possible after exposure (within 72 hours) and continue for a four-week duration.
- PEP medication regimens should contain three or more antiretroviral drugs for all occupational exposures to HIV.
- Expert consultation is recommended for any occupational exposure to HIV situation as defined by the USPHS.
- Close follow-up should be provided, including counseling, baseline and follow-up HIV testing, and monitoring for drug toxicity.
- If a fourth-generation combination of HIV p24 antigen-HIV antibody test is used for follow-up HIV testing, testing may be ended four months following exposure. If a new testing platform is not available, follow-up HIV testing is to be concluded six months after exposure.

(Kuhar et al., 2018)

CLINICAL MANAGEMENT

Clinical management of the patient exposed to or infected with HIV and for those at high risk involves:

- Antiretroviral agents for HIV infected adults and adolescents
- Prevention and treatment of opportunistic infections
- Preexposure prophylaxis for prevention of HIV infection

Antiretroviral Therapy (ART)

Antiretroviral therapy has transformed HIV infection into a manageable chronic condition. Additionally, it is highly effective at preventing HIV transmission.

ART involves taking a combination of HIV medicines every day exactly as prescribed. ART is recommended for all persons infected with HIV, regardless of how long they have had the virus or how healthy they are. If left untreated, HIV will attack the immune system and eventually progress to AIDS. Antiretroviral therapy used in the treatment of HIV infection has led to dramatic decreases in morbidity and mortality (Fletcher, 2016).



There are six major classes of drugs used to treat HIV/AIDS:

- CCR5 antagonists
- Fusion inhibitors
- Nucleoside reverse transcriptase inhibitors (NRTIs)
- Non-nucleoside reverse transcriptase inhibitors (NNRTIs)
- Protease inhibitors
- Multi-class combination products

Among these six drug classes are more than 25 HIV medicines approved to treat HIV infection. Drug selection could potentially include these 25 medications; however, only a small number is recommended. For most patients, an ART regimen consists of a dual nucleoside combination plus a third agent from a different class (Fletcher, 2016).

Benefits of viral suppression and improved immune function due to effective ART far outweigh risks of adverse effects. The new regimens currently recommended are associated with fewer serious and intolerable adverse effects than those regimens used in the past.

ART-associated adverse effects range from acute and potentially life-threatening to chronic and insidious. There are several factors that may predispose persons to adverse effects, such as genetics, comorbid conditions such as alcoholism or viral hepatitis, as well as psychiatric disorders or mild renal dysfunction. Side effects may also result from drug-drug interactions.

As patients live longer with HIV/AIDS, many develop drug-resistant strains of the virus, which further complicates treatment. Using combination therapy means that it takes much longer for resistance to develop (IAPAC, 2014).

Preexposure Prophylaxis (PrEP)

For persons who are not infected with HIV, preexposure prophylaxis using antiretroviral medications is an evidence-based way to prevent new infections among those at greatest risk. Determining risk is accomplished by assessing sexual risk and drug-using behaviors over the last six months, which include:

- Those in an ongoing sexual relationship with an HIV-positive partner
- Gay or bisexual men who are not in a monogamous relationship with a recently tested, HIV-negative partner, and who have either had anal sex without a condom or been diagnosed with an STI
- Heterosexual men or women who are not in a monogamous relationship with a recently tested, HIV-negative partner, and who do not always use condoms with partners whose HIV status is unknown and who are at a high risk of HIV infection



PrEP involves taking an HIV medication (Truvada, a combination of the two HIV medications tenofovir and emtricitabine) on a daily basis, which can lower the risk of getting HIV from sex by more than 90% and from injection drug use by more than 70% (USDHHS, 2016b).

CONCLUSION

The AIDS epidemic began thirty years ago. Since then it has claimed the lives of more than 35 million people across the globe. The older generation of Americans is familiar with the disease and its history, but today's younger people, having been born after the disease became controllable in the U.S., may have limited awareness of it. The public no longer has a sense of urgency or importance about AIDS. However, the epidemic continues.

Approximately 127,589 persons in Florida are living with HIV. Florida ranks first in the nation for new HIV infections, and first in the nation for newly diagnosed AIDS cases (FL DOH, 2015a). HIV continues to spread primarily among disadvantaged and marginalized population, many of whom do not realize they are infected and unknowingly transmit the virus to others.

The key to controlling the epidemic is prevention. Healthcare professionals have a critical role in the screening and education of patients, families, and communities about HIV/AIDS and transmission prevention. It is essential that efforts continue be made to increase the number of individuals undergoing testing, to increase the number of HIV-infected persons receiving treatment, and to develop strategies to increase adherence to treatment over the long term.



RESOURCES

AIDSinfo (U.S. DHHS)
<https://aidsinfo.nih.gov>

HIV/AIDS (CDC)
<https://www.cdc.gov/hiv/>

HIV.gov
<https://www.HIV.gov>

Hotlines and referrals
<https://www.cdc.gov/hiv/library/hotlines.html>

National Prevention Information Network (CDC)
<https://npin.cdc.gov/>

Postexposure Prophylaxis Hotline (PEpline)
888-448-4911



Florida Resources

Florida HIV/AIDS Hotline

<http://www.211bigbend.org/flhivaids hotline>

800-352-2437 (English)

800-545-7432 (Spanish)

800-AIDS-101 (Haitian Creole)

888-503-7118 (TDD/TTY)

HIV/AIDS (Florida Department of Health)

<http://www.floridahealth.gov/diseases-and-conditions/aids/>

Model Protocol for HIV Counseling and Testing in Health Care Settings

http://www.floridahealth.gov/diseases-and-conditions/aids/prevention/_documents/protocol-testing-hc-setting.pdf

REFERENCES

Bartlett J. (2016). The natural history and clinical features of HIV infection in adults and adolescents. *UpToDate*. Retrieved from <https://www.uptodate.com/contents/the-natural-history-and-clinical-features-of-hiv-infection-in-adults-and-adolescents>

Centers for Disease Control and Prevention (CDC). (2016a). Basic statistics. Retrieved from <https://www.cdc.gov/hiv/basics/statistics.html>

Centers for Disease Control and Prevention (CDC). (2016b). HIV in the United States by geographic distribution. Retrieved from <https://www.cdc.gov/hiv/pdf/statistics/cdc-hiv-geographic-distribution.pdf>

Centers for Disease Control and Prevention (CDC). (2016c). HIV among pregnant women, infants, and children. Retrieved from <https://www.cdc.gov/hiv/group/gender/pregnantwomen/>

Centers for Disease Control and Prevention (CDC). (2016d). HIV testing. Retrieved from <https://www.cdc.gov/hiv/testing/index.html>

Centers for Disease Control and Prevention (CDC). (2015). Occupational HIV transmission and prevention among healthcare workers. Retrieved from <https://www.cdc.gov/hiv/pdf/workplace/cdc-hiv-healthcareworkers.pdf>

Cohen M. (2016). HIV infection: risk factors and prevention strategies. *UpToDate*. Retrieved from <https://www.uptodate.com/contents/hiv-infection-risk-factors-and-prevention-strategies>

Encyclopaedia Britannica (2015). Virion. Retrieved from <https://www.britannica.com/science/virion>

Fletcher C. (2016). Overview of antiretroviral agents used to treat HIV. *UpToDate*. Retrieved from <https://www.uptodate.com/contents/overview-of-antiretroviral-agents-used-to-treat-hiv>

Florida Department of Health (FL DOH). (2016). Minority HIV/AIDS initiatives. Retrieved from <http://www.floridahealth.gov/diseases-and-conditions/aids/administration/minority-initiatives.html>

Florida Department of Health (FL DOH). (2015a). HIV data center. Retrieved from <http://www.floridahealth.gov/%5C/diseases-and-conditions/aids/surveillance/index.html>



Florida Department of Health (FL DOH). (2015b). Epidemiology of HIV among persons aged 50 or older reported in Florida, through 2014. Retrieved from http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/_documents/hiv-aids-slide-sets/2014/50plus-2014b.pdf

Florida Department of Health (FL DOH). (2015c). TOPWA annual summary, 2015. Retrieved from http://www.floridahealth.gov/diseases-and-conditions/aids/prevention/_documents/topwa/topwa-report-2014-2015.pdf

International Association of Providers of AIDS Care. (IAPAC). (2014). HIV and inflammation. Retrieved from http://aidsinfonet.org/fact_sheets/view/484

Kleinman S. (2016). Risk of HIV from blood transfusion. *UpToDate*. Retrieved from <https://www.uptodate.com/contents/risk-of-hiv-from-blood-transfusion>

Kuhar D, Henderson D, Struble K, Heneine W, Thomas V, et al. (2018). Updated U.S. Public Health Service guidelines for the management of occupational exposures to HIV and recommendations for postexposure prophylaxis. Retrieved from <https://stacks.cdc.gov/view/cdc/20711>

Sax P. (2016). Acute and early HIV infection: pathogenesis and epidemiology. *UpToDate*. Retrieved from <https://www.uptodate.com/contents/acute-and-early-hiv-infection-pathogenesis-and-epidemiology>

U.S. Department of Health & Human Services (USDHHS). (2016a). Stages of HIV infection. Retrieved from <https://www.aids.gov/hiv-aids-basics/just-diagnosed-with-hiv-aids/hiv-in-your-body/stages-of-hiv/>

U.S. Department of Health and Human Services (USDHHS). (2016b). Pre-exposure prophylaxis (PrEP). Retrieved from <https://aidsinfo.nih.gov/education-materials/fact-sheets/20/85/pre-exposure-prophylaxis--prep>



DISCLOSURE

Wild Iris Medical Education, Inc., provides educational activities that are free from bias. The information provided in this course is to be used for educational purposes only. It is not intended as a substitute for professional healthcare. Neither the planners of this course nor the author have conflicts of interest to disclose. (A conflict of interest exists when the planners and/or authors have financial relationship with providers of goods or services which could influence their objectivity in presenting educational content.) This course is not co-provided. Wild Iris Medical Education, Inc., has not received commercial support for this course. There is no “off-label” use of medications in this course. All doses and dose ranges are for adults, unless otherwise indicated. Trade names, when used, are intended as an example of a class of medication, not an endorsement of a specific medication or manufacturer by Wild Iris Medical Education, Inc., or ANCC. Product trade names or images, when used, are intended as an example of a class of product, not an endorsement of a specific product or manufacturer by Wild Iris Medical Education, Inc., or ANCC. Accreditation does not imply endorsement by Wild Iris Medical Education, Inc., or ANCC of any commercial products or services mentioned in conjunction with this activity.

ABOUT THIS COURSE

You must score 70% or better on the test and complete the course evaluation to earn a certificate of completion for this CE activity.

ABOUT WILD IRIS MEDICAL EDUCATION

Wild Iris Medical Education offers a simple CE process, relevant, evidence-based information, superior customer service, personal accounts, and group account services. We’ve been providing **online accredited continuing education since 1998**.

ACCREDITATION INFORMATION FOR WILD IRIS MEDICAL EDUCATION



TEST

[[Take the test online at wildirismedicaleducation.com](http://wildirismedicaleducation.com)]

1. In 2015, where did Florida rank among all states in the number of new HIV infections?
 - a. First
 - b. Third
 - c. Eleventh
 - d. Twenty-second

2. Following infection with the HIV virus, the time before the immune system produces antibodies that can be detected by HIV testing is referred to as:
 - a. Clinical latency stage.
 - b. Asymptomatic HIV infection.
 - c. Window period.
 - d. AIDS.

3. Which body fluid is known to transmit HIV infection?
 - a. Saliva
 - b. Urine
 - c. Breast milk
 - d. Sweat

4. Currently in the United States, which exposure presents the most significant risk for transmission of HIV infection?
 - a. Sexual contact with an HIV-infected person
 - b. Exposure to amniotic, cerebrospinal, pericardial, pleural, and synovial fluids
 - c. Being accidentally splashed with body fluids of an HIV-infected person
 - d. Receiving a blood transfusion

5. Florida law requires HIV testing of prison inmates:
 - a. When they enter prison.
 - b. Within 60 days prior to their release.
 - c. In all prisons, jails, and detention facilities.
 - d. Only with their written informed consent.



6. Which type of HIV test detects HVI RNA and DNA before antibodies have had time to develop?
- Nucleic acid tests
 - Antibody tests
 - Immunoassay tests
 - Rapid HIV tests
7. Which is a **true** statement regarding informed consent for HIV testing in Florida?
- A general consent to draw blood and run unspecified tests meets the criteria for informed consent.
 - Written and verbal consent are both required.
 - It is legal to test for HIV infection solely for the purpose of protecting healthcare workers.
 - The test subject must be informed that his or her name will be reported to the local county health department if the test results are positive.
8. Under Florida law, the parents of a mature child under age 18:
- Are entitled to know their child's HIV test results even without their child's consent.
 - May not be informed directly or indirectly of their child's HIV test results without the child's consent.
 - May be informed indirectly of their child's HIV test results through the laboratory invoicing process.
 - Must provide informed consent before their child can be tested for HIV.
9. Florida law mandates that each woman who is pregnant receive HIV testing:
- As a condition for receiving prenatal care.
 - As well as hepatitis C testing at the first prenatal visit.
 - On an opt-out basis.
 - After providing written consent.
10. Which is a **correct** statement about antiretroviral therapy (ART)?
- ART is recommended only for those who have been infected for less than one year.
 - ART is recommended only for persons who have developed AIDS.
 - ART has not had a dramatic effect on morbidity and mortality.
 - ART is recommended for all persons infected with HIV.