

HIV TESTING

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Disclaimer

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MATEC Statement on Equity and Inclusion

MATEC has a strong commitment to fair, respectful and unbiased representation of humankind. We strive to be anti-racist, gender-affirming, culturally humble, and honor all people in an authentic way. This is our goal in all of our work, including this presentation.

Our commitment to you is that we take this stance seriously and invite you to do the same. We ask that if you find something offensive, off-putting, or inaccurate to please let us know.

We continue to grow and evolve and welcome you on our journey.

“When we know better we do better.”
–Dr. Maya Angelou

Objectives

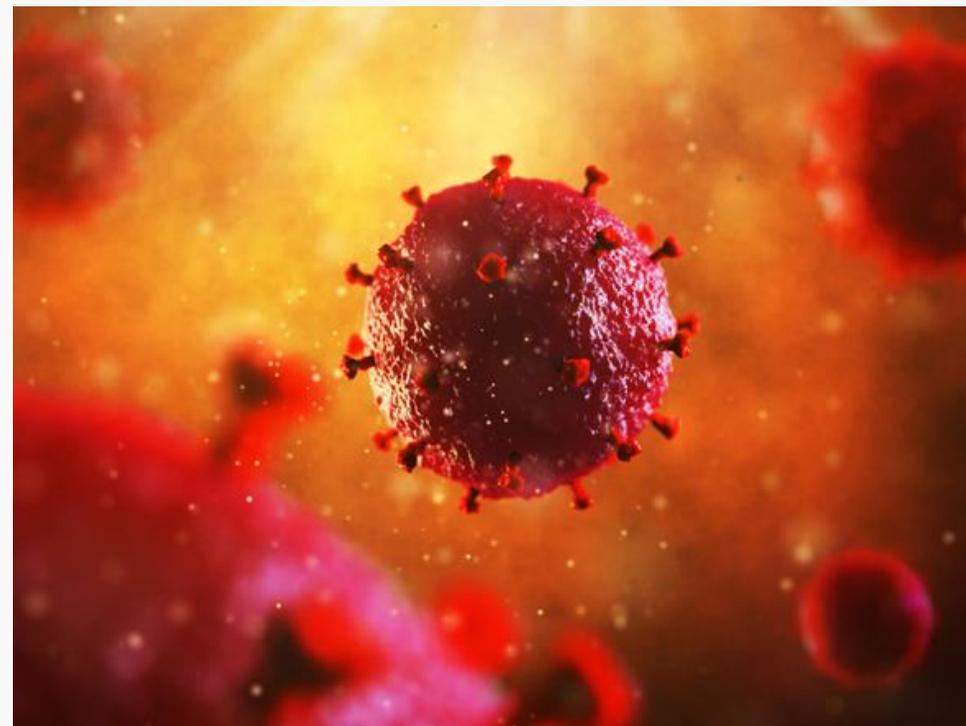
During this module, participants will:

1. Recall HIV/AIDS 101 facts
2. Understand why HIV testing is an integral part of prevention
3. Define key terms used in routine HIV testing
4. Identify the types of HIV tests offered
5. Interpret lab results

HIV 101 FACTS

What is HIV?

- Human Immunodeficiency Virus
- CD4 cells normally protect the body from HIV
- There is no cure for HIV
- HIV can be controlled



(Image Source: [iStockPhoto](#))

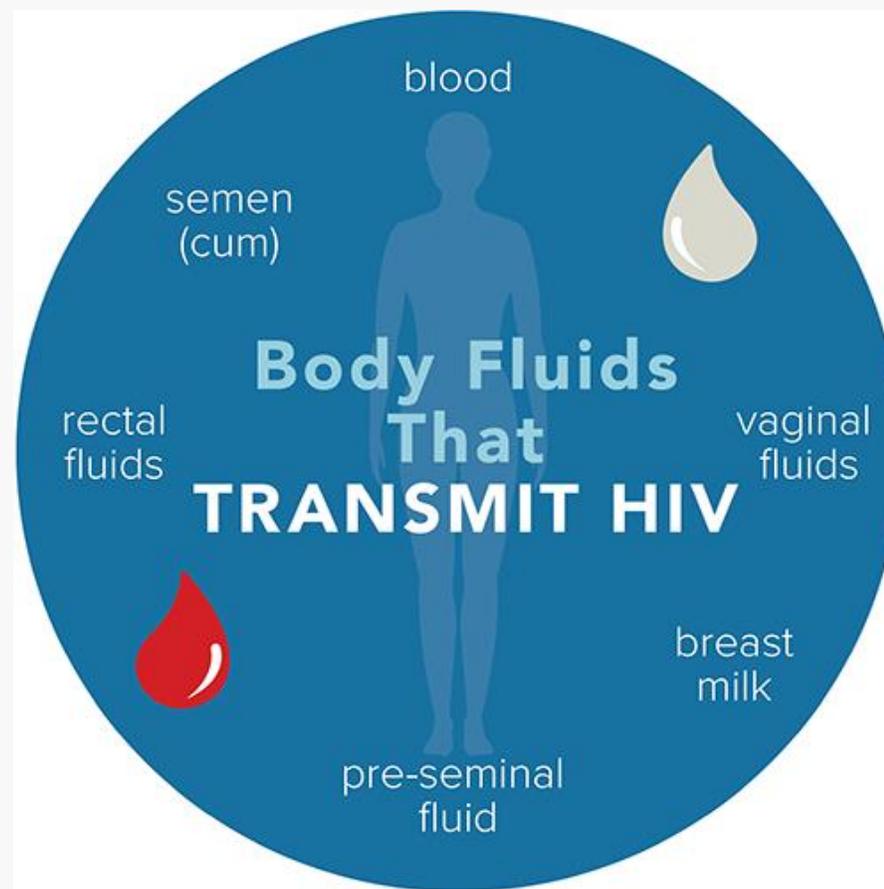
What is AIDS?

Acquired Immunodeficiency Syndrome

- The presence of one or more AIDS-related infections or illnesses
 - Pneumonia
 - Cancers
- CD4 count has reached or fallen below 200 cells
 - Normal counts range from 450 to 1200
- Body's immune system is significantly diminished, unable to fight off illnesses

Facts about HIV Transmission

- Spread through bodily fluids:
 - Blood
 - Semen (*cum*)
 - Pre-seminal fluid (*pre-cum*)
 - Rectal fluids
 - Vaginal fluids
 - Breast milk



(CDC, 2021)

NORMALIZING ROUTINE HIV SCREENING

Where Did Routine HIV Screening Come From?

- HIV testing and opt-out screening should be a part of routine clinical care
- This is intended for all health care settings
- The CDC did not modify existing guidelines around HIV counseling, testing, and referral for persons who receive HIV testing in nonclinical settings

What Specific Details Were Included in the Initiative?

After the patient is notified that testing will be performed unless the patient declines (opt-out screening)

Persons at high risk for HIV infection should be screened every 6-12 months

For patients in all health care settings aged 13 – 64 years old, HIV screening is recommended,

Separate written consent for HIV testing should not be required; general consent for medical care should be considered sufficient to encompass consent for HIV testing.

Prevention counseling should not be required as part of HIV screening programs in health care settings

Why is Routine Screening Vital to Prevention?

- Estimated 1.1 million people have HIV in the United States
- Every patient is offered a test as part of their routine medical care; removing judgment and stigma in the testing process
- Reducing the number of unknown HIV+ cases
- 80% of new HIV cases come from individuals that are undiagnosed or diagnosed but not receiving care



(Image Source: [iStockPhoto](#))

KEY TERMS USED IN ROUTINE HIV SCREENING

Key Terms 1

Opt-Out

- The patient's consent to offered test is assumed unless they decline
 - "Today we will be performing an HIV test "
 - "We do this for all of our patients"

Opt-In

- Patients need to specifically ask to have an HIV test

Stigma

- Shame or disgrace attached to something regarded as socially unacceptable

Key Terms 2

Antibody

- Proteins produced by your body that help fight infections
- They bind to the virus to stop it from replicating itself

Antigen

- A substance that the immune system perceives as being foreign or dangerous

Window Period

- The time it takes for the body to produce HIV antibodies after exposure to HIV

Key Terms 3

Reactive or 'preliminary positive'

- Used in rapid HIV test, indicating HIV antibodies were found in the sample

Non-Reactive or 'negative'

- Indicates that no HIV antibodies were found in the patient's sample at the time of screening

Invalid

- A faulty screening device; test needs to be repeated

Key Terms 4

Confirmatory Test

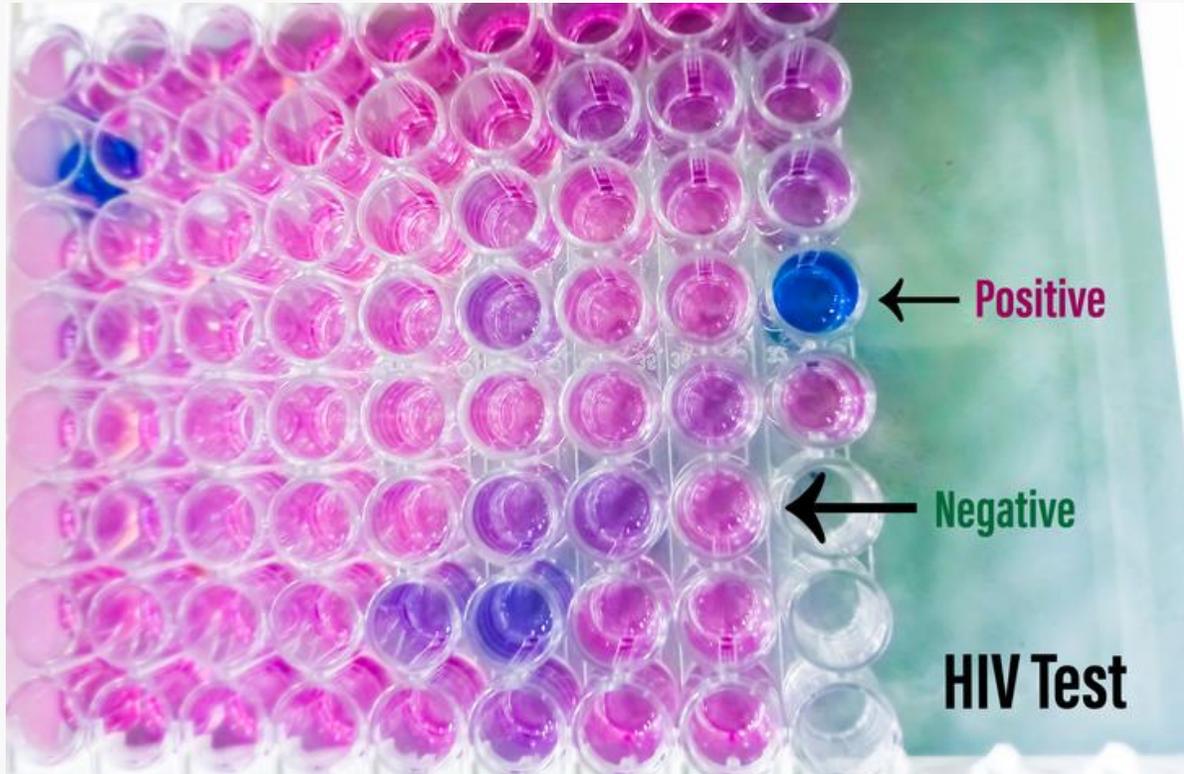
- A blood draw test that looks specifically for HIV antibodies

False Positive

- The rapid screening showed a reactive result while the confirmatory test showed a negative result

TYPES OF HIV TESTS

Test Accuracy



(Image Source: [istockphoto](#))

Accuracy depends on several factors:

- Types of tests used
- How soon a person is tested after exposure
- How a person's body responds to HIV

Sensitivity =

- percentage of results that will be positive when HIV is present

Specificity =

- percentage of results that will be negative when HIV is not present

Antibody test

Looks for antibodies to HIV in blood or oral fluids

Antibodies can usually be detected between 23 and 90 days

Most rapid tests and HIV self-tests are antibody test

Blood from a vein can detect HIV sooner after infection than a finger stick

Results are typically available within 20 - 30 minutes



(Image Source: [istockphoto](#))

Antigen/Antibody Test



(Image Source: [istockphoto](#))

An antigen/antibody test looks for both HIV antibodies and antigens

Available as a blood draw or finger stick rapid test

Blood from a vein can detect HIV between 18 and 45 days after exposure

Finger stick can detect HIV between 18 and 90 days after exposure

Finger stick results can be provided in 30 minutes or less

Lab results may take several days

Nucleic Acid Test (NAT)

A NAT looks for the actual virus in the blood

Blood draw from a vein and sample is sent to the lab

NAT can test for viral load

NAT can detect HIV between 10 – 33 days after exposure

May take several days to receive lab results



(Image Source: [istockphoto](#))

Most Commonly Used Rapid HIV Tests

OraQuick In-Home HIV 1/2 Test

Antibody test

Oral swab

Results in 20 minutes

\$35 - \$40

92% sensitivity; 99.8% specificity

OraQuick Advanced HIV 1/2 Rapid Test

Antibody test

Results in 20 minutes

Oral swab – 99.7% sensitivity; 99.9%
specificity

Finger stick – 99.9% sensitivity;
99.7% specificity

Most Commonly Used Rapid HIV Tests Continued...

INSTA HIV 1/2 Rapid Test

Antibody Test

Finger stick

Results in 1 minute

99.8% sensitivity; 99.5% specificity

SURE Check HIV 1/2 Rapid Test

Antibody Test

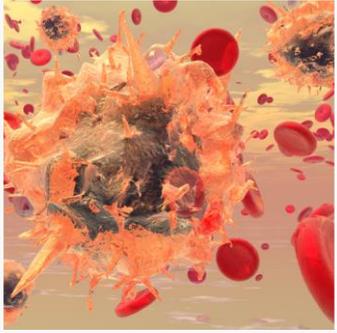
Finger stick

Results in 15 minutes

99.7% sensitivity; 99.9% specificity

INTERPRETING LAB RESULTS

What do Lab Tests Look For?



CD4

- Between 600 and 1,500
- ART medications can keep count high
- Assigned an AIDS diagnosis if count drops below 200

(Image Source: [iStockPhoto](#))



Viral Load

- Measure the amount of HIV in the blood
- The lower the viral load the better
- Goal of ART medications is to have an undetectable viral load

(Image Source: [iStockPhoto](#))

Conclusion

- Recall HIV/AIDS 101 facts
- Understand why HIV testing is an integral part of prevention
- Define key terms used in routine HIV testing
- Identify the types of HIV tests offered
- Interpret lab results

MATEC Resources

- National Clinician Consultation Center
<http://nccc.ucsf.edu/>
 - HIV Management
 - Perinatal HIV
 - HIV PrEP
 - HIV PEP line
 - HCV Management
 - Substance Use Management
- AETC National HIV Curriculum
<https://aidsetc.org/nhc>
- AETC National HIV-HCV Curriculum
<https://aidsetc.org/hivhcv>
- Hepatitis C Online
<https://www.hepatitisc.uw.edu>
- AETC National Coordinating Resource Center
<https://aidsetc.org/>
- Additional Trainings <https://matec.info>

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Thank you!