# First Steps: The Initial Evaluation for A Newly Diagnosed Person with HIV

Cody A. Chastain, MD, FACP, FIDSA Assistant Professor of Medicine Division of Infectious Diseases Vanderbilt University Medical Center



# Disclosures and Acknowledgments

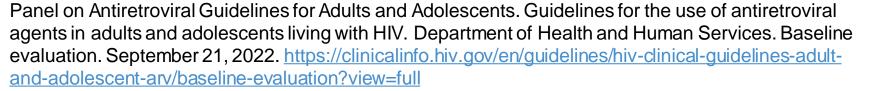
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#### Goals of Initial Evaluation

- Confirm diagnosis of HIV
- Obtain a complete medical history
- Perform a comprehensive physical examination
- Obtain appropriate baseline and historical laboratory data
- Assess individual's understanding about HIV and transmission
- Initiate medical care



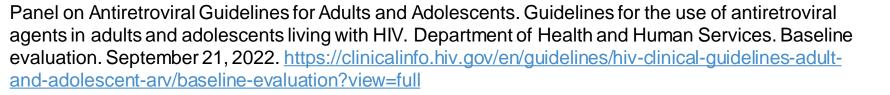




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#### Prior Session on Fundamentals Track 8/30/23

12:00pm CT/1:00pm ET

Breakout Session: The ABCs of ART: Designing Initial Antiretroviral Regimens for Beginners | Liz Sherman, PharmD, AAHIVP



#### Later Sessions on Fundamentals Track 8/31/23

Breakout Session: Implementation of HIV Treatment and Practice | Krystn Wagner, MD and Kristen 1:15pm CT/2:15pm ET Rager

Breakout Session: Basics of HIV Antiretroviral Therapy Resistance | Todd Hulgan, MD 2:30pm CT/3:30pm ET



#### Objectives

At the end of this session, participants will be able to:

- Confirm a diagnosis of HIV from prior testing during an initial visit with a person with newly diagnosed HIV
- Describe key elements of the patient history during an initial visit with a person with newly diagnosed HIV
- Identify key elements of the physical exam during an initial visit with a person with newly diagnosed HIV
- <u>List and interpret laboratory studies</u> that should be obtained prior to or during an initial visit with a person with newly diagnosed HIV
- Recommend appropriate immunizations and/or opportunistic infection prophylaxis during an initial visit with a person with newly diagnosed HIV
- Identify appropriate resources to support providers during an initial visit with a person with newly diagnosed HIV



# Goal

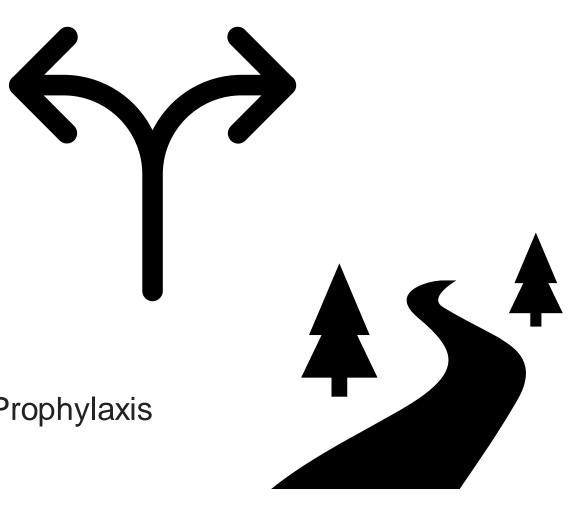
 Empower you to provide evidencebased care to a person with newly diagnosed HIV so that their health potential is optimized





#### Roadmap

- Resources
- Diagnosis
- History Taking
- Physical Exam
- Laboratory Studies
- Immunizations & Opportunistic Infection Prophylaxis
- Counseling





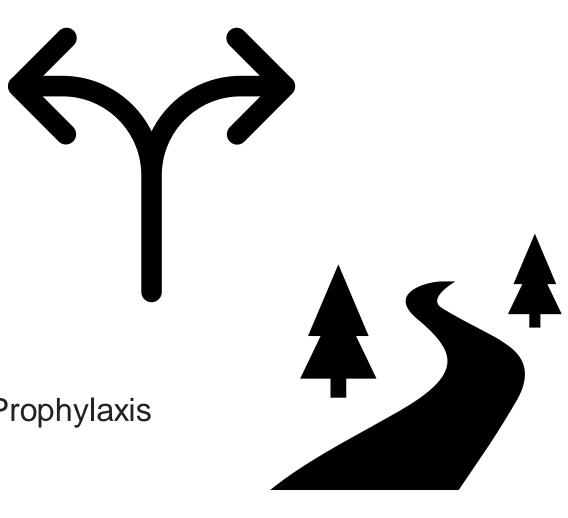
# Are You In The Right Place? (8/31/23)

8:45am CT/9:45am ET	Breakout Session: Initial Evaluation for Newly Diagnosed People with HIV   Cody Chastain, MD, FACP, FIDSA
8:45am CT/9:45am ET	Breakout Session: STI Guideline Updates Featuring Doxy PEP, GC Resistance & Mycoplasma genitalium   Nick Van Wagoner, MD
8:45am CT/9:45am ET	Breakout Session: Systems as Patients: Leveraging Design & Innovation Methods for QI   Ryan Buckley, MD

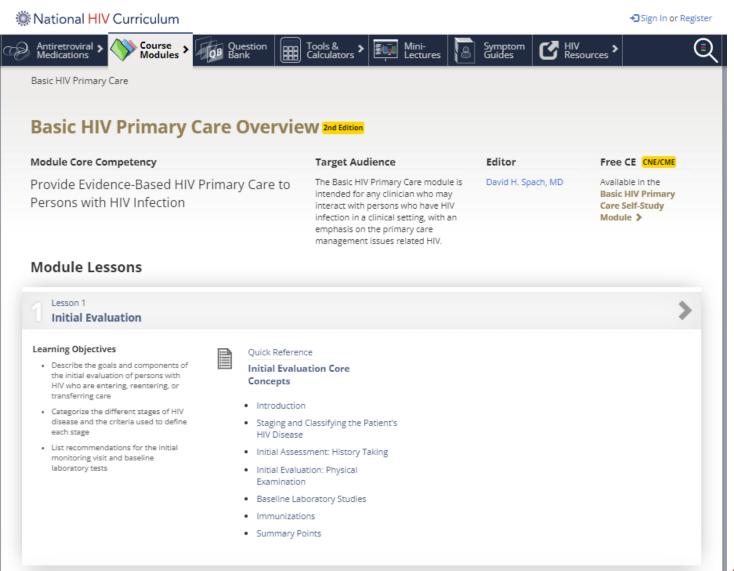


## Roadmap

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#### Clinical Infectious Diseases

#### MAJOR ARTICLE







# Primary Care Guidance for Persons With Human Immunodeficiency Virus: 2020 Update by the HIV Medicine Association of the Infectious Diseases Society of America

Melanie A. Thompson,<sup>1,a</sup> Michael A. Horberg,<sup>2,a</sup> Allison L. Agwu,<sup>3</sup> Jonathan A. Colasanti,<sup>4</sup> Mamta K. Jain,<sup>5</sup> William R. Short,<sup>6</sup> Tulika Singh,<sup>7</sup> and Judith A. Aberg<sup>8</sup>

<sup>1</sup>AIDS Research Consortium of Atlanta, Atlanta, Georgia, USA, <sup>2</sup>Mid-Atlantic Permanente Research Institute, Kaiser Permanente Mid-Atlantic Permanente Medical Group, Rockville, Maryland, USA, <sup>3</sup>Division of Infectious Diseases, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA, <sup>4</sup>Division of Infectious Diseases, Emory University, Atlanta, Georgia, USA, <sup>5</sup>Division of Infectious Diseases, University of Texas Southwestern Medical Center, Dallas, Texas, USA, <sup>6</sup>Division of Infectious Diseases, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, USA, <sup>7</sup>Internal Medicine, HIV and Infectious Disease, Desert AIDS Project, Palm Springs, California, USA, and <sup>8</sup>Division of Infectious Diseases, Mount Sinai Health System, New York, New York, USA

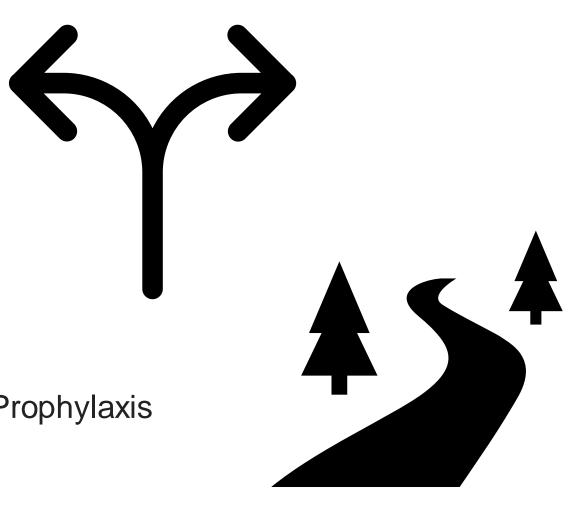
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Southeast

Goals of HIV Testing Improve Survival **Quality of Life** HIV HIV Link to Care Diagnosis **Testing Prevent New HIV** Infections

#### Who Should We Screen?

- CDC recommends routinely screening all patients aged 13-64 for HIV infection after notifying them that testing will be performed unless declined
- USPSTF recommends testing all patients aged 15-65
- More frequent screening (e.g., repeat testing as indicated) in:
  - People with multiple partners, or whose partner has multiple partners
  - People who inject drugs, and their partners
  - Partners of people with HIV
  - People with an STI, viral hepatitis, or TB
  - People who exchange sex for money, commodities, drugs
- Prevention counseling is not required with HIV diagnostic testing or as part of HIV screening programs in healthcare settings



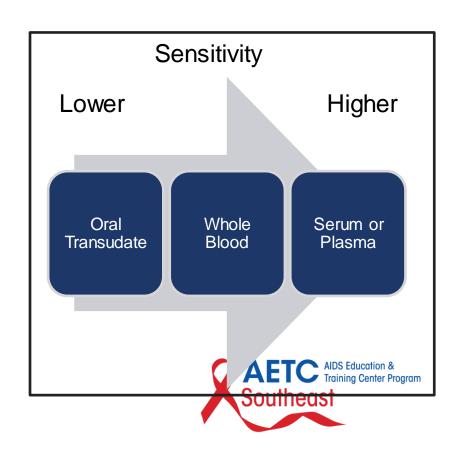
#### Opt-out HIV screening

- Patients should be informed that HIV screening will be included <u>as part of their standard evaluations</u>
- Patients may decline (i.e., opt-out)
- Risk-based screening (vs. opt-out screening) miss HIV diagnoses among those who have a perceived low HIV risk
- Routine testing allows
  - Early linkage to care and treatment
  - Stigma reduction
  - Transmission reduction



## **Options for HIV Testing**

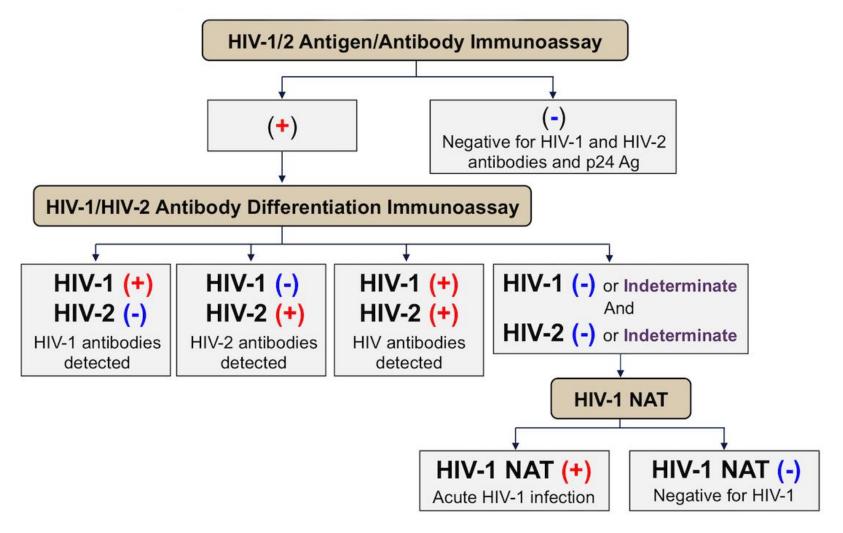
- HIV Antigen/Antibody Test (4th generation testing)
  - Can detect acute HIV infection
- HIV Antibody Test (3<sup>rd</sup> generation)
- Rapid HIV Test
  - Blood or saliva
  - Requires confirmation
- HIV viral load
  - Can detect acute HIV infection



## **Evolution of HIV Assays**

IgG-Sensitive		IgM-Sensitive	Antigen-Antibody
First Generation	Second Generation	Third Generation	Fourth Generation
Uses crude viral lysate Detects IgG antibodies	Uses recombinant HIV antigens or peptides Detects IgG antibodies	Uses "Sandwich" EIA Detects IgM and IgG antibodies	Detects HIV IgG and IgM antibodies and p24 antigen

#### CDC HIV Diagnostic Algorithm





Spach, D. Figure 10. HIV Diagnostic Testing. National HIV Curriculum. hiv.uw.edu

#### What happens if a test is positive?

- Positive rapid tests require confirmation with 4<sup>th</sup> generation testing algorithm
- Results should be confidentially and directly, ideally through personal contact

#### Provide counseling

- HIV is a manageable condition that can be effectively treated
- Patient should inform current and prior partners
- Discuss HIV risk reduction practices
- Discuss ways and resources to process diagnosis
- Link patient to care



#### What if a test is negative?

 Reinforce safer sex and needle sharing practices, when appropriate

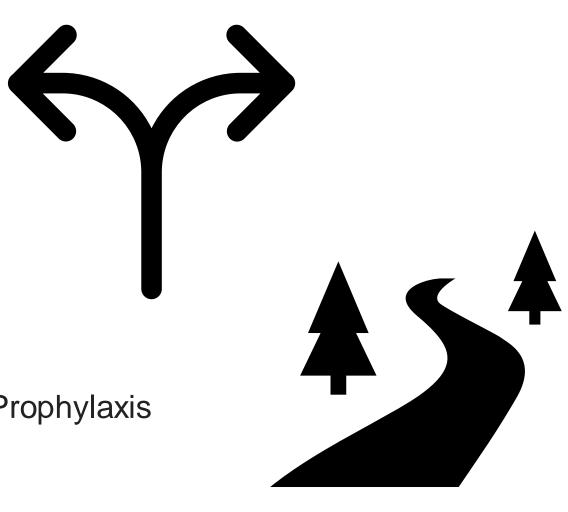
Recommend additional and/or repeat testing as indicated

Consider HIV pre-exposure prophylaxis (PrEP)



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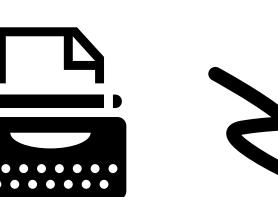


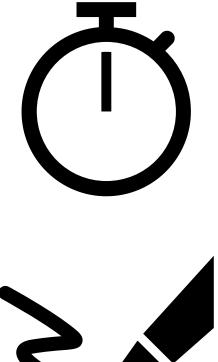


## Active Learning: History Taking

- Work independently
- Write down (on paper, a device, or in the text box) what you would attempt to learn at an initial evaluation of a person with HIV
- Take 60 seconds









#### Initial Evaluation: History Taking

- HIV-Related History
  - Date of diagnosis
  - Risk factors
  - Prior HIV-associated complications and comorbidities
- Past Medical, Surgical, and Mental Health History
- Medication and Allergy History

- Sexual History
- Substance Use History
- Social, Family, and Travel History
- Review of systems



#### Sexual History Goals

- To learn about the patient's sexual health
  - Assess HIV and/or sexually transmitted infection (STI) risk, as people tend to underestimate/not believe own risks

- To help the patient achieve the goals in their sexual health
  - Emphasize benefits over risk to motivate patients toward prevention and positive care behavior



# General Approach To Taking a Sexual History

- Be respectful, professional, and non-judgmental.
- Appropriate verbal and non-verbal communication.
- Use open-ended and specific questions.
- Use appropriate but specific language.
- Be aware and ask regarding gender identity and orientation.



# Two Frameworks for Taking a Sexual History

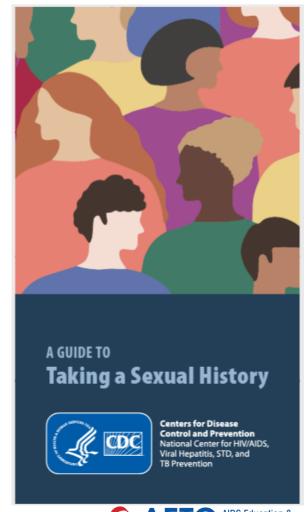
5 Ps

GOALS



#### The 5 "Ps" of Sexual Health

- Partners
- Practices
- Protection from STIs
- Past History of STIs
- Pregnancy Intention





#### The GOALS Framework

- Give a preamble/preface
- Offer opt-out HIV and STI testing
- Ask open-ended questions
- Listen for relevant information, and ask more pointed questions to fill in the blanks
- Suggest a course of action, highlighting benefits
  - Consider HIV and STI testing, PrEP, contraception counseling
  - Benefits include 1) exerting greater control of their sexual health and 2) decreasing anxiety about potential STI/HIV transmission



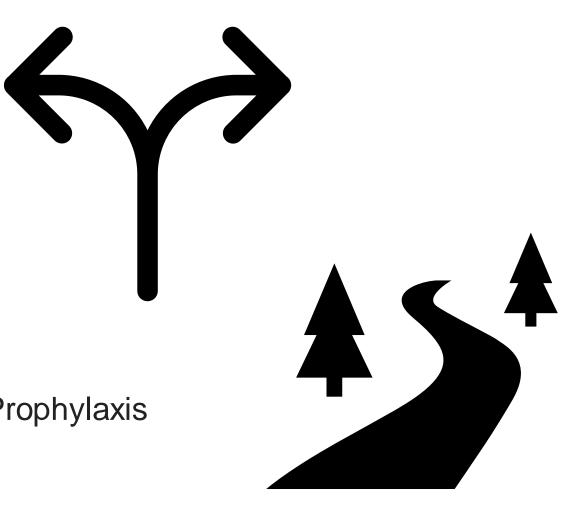
#### GOALS: Preamble/Preface Example

"I talk to all my patients about sexual health, because it's such an important part of their overall health. Some of my patients have questions or concerns about their sexual health, so I want to make sure I understand what your questions or concerns might be and provide whatever information or other help you might need."



#### Roadmap

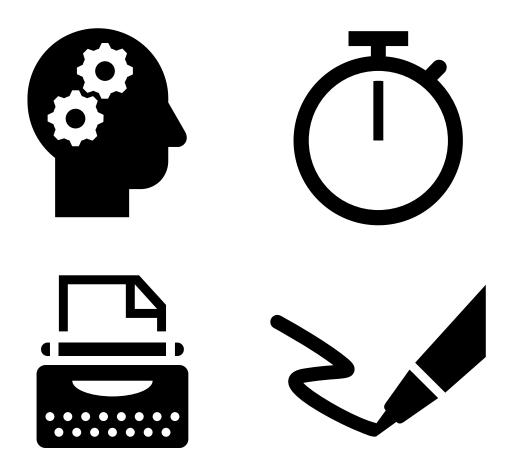
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#### Active Learning: Physical Exam

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#### Initial Evaluation: Physical Examination

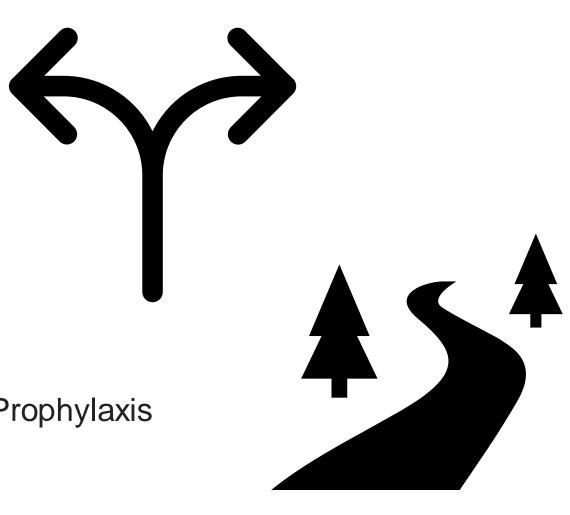
- Vital Signs
- General Appearance
- Skin
- Lymph nodes
- Eye
- Oropharynx
- Cardiovascular

- Chest / Pulmonary
- Breast
- Abdomen
- Genitourinary
- Anorectal
- Neurologic
- Psychiatric



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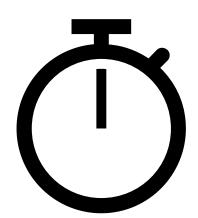


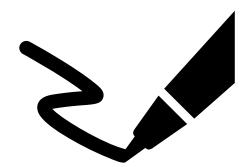
#### Active Learning: Laboratory Studies

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## Initial Evaluation: Laboratory Studies

#### **HIV Disease Related Tests**

- Confirmation of HIV
- CD4 cell count with %
- Quant Plasma HIV RNA
- HIV Drug-Resistance Testing
- HLA-B\*5701
- Coreceptor Tropism
- G6PD Deficiency Screening

#### Routine

- Complete blood count with diff
- Basic chemistry panel
- Hepatic aminotransferase levels
- Urinalysis
- Fasting lipid panel
- Fasting plasma glucose or hemoglobin A1C
- Serum testosterone
- Pregnancy test

## Coinfection & Comorbidity Screening

- Hepatitis A Virus
- Hepatitis B Virus
- Hepatitis C Virus
- TB Screening
- CMV screening
- Mycobacterium avium complex screening
- Cryptococcus screening
- Toxoplasma gondii screening

# **Sexually Transmitted Infection Screening**

- Syphilis
- Gonorrhea
- Chlamydia
- Cervical and anal cancer screening +/-HPV
- Trichomonas



### Laboratory Studies: HIV Disease Related Tests

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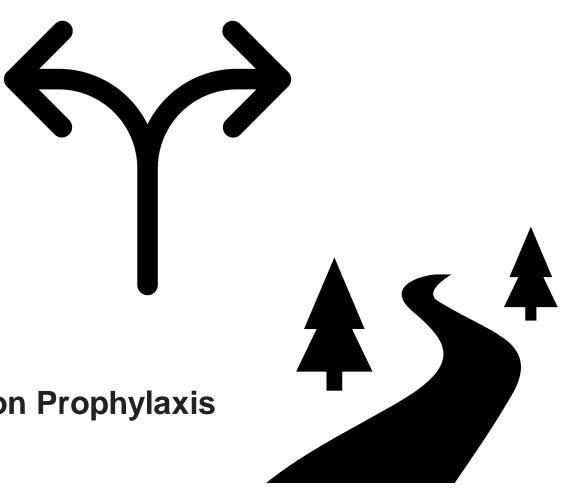
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- Gonorrhea
- Chlamydia
- Cervical and anal cancer screening +/- HPV
- Trichomonas



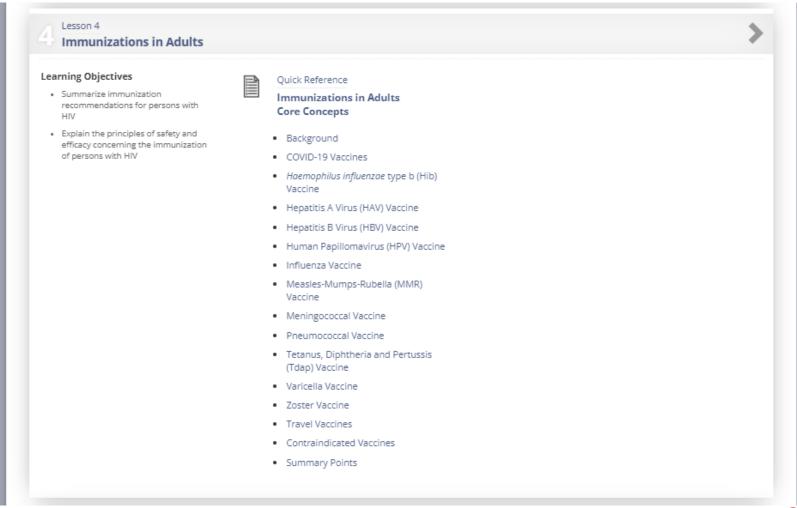
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### https://www.hiv.uw.edu/go/basic-primary-care/immunizations





### Next Session on Fundamentals Track 8/31/23

10:00am CT/11:00am ET

Breakout Session: Primary Care Management in People with HIV | Meagan Schaeffner, MD, FACP, AAHIVS



#### Clinical Infectious Diseases

#### MAJOR ARTICLE







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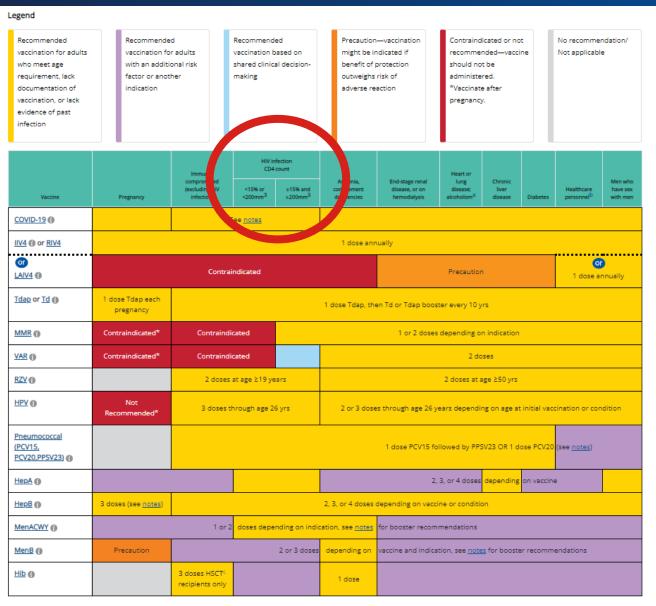
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- a. Precaution for LAIV4 does not apply to alcoholism.
- b. See notes for influenza; hepatitis B; measles, mumps, and rubella; and varicella vaccinations.
- c. Hematopoietic stem cell transplant.



### Opportunistic Infection Prevention

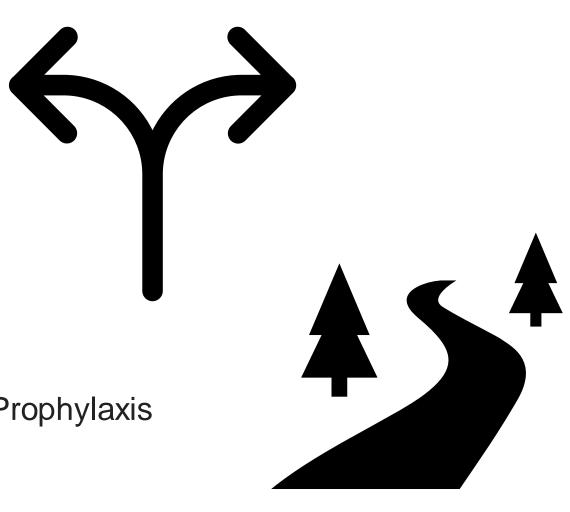
(https://clinicalinfo.hiv.gov/en/guidelines/hiv-clinical-guidelines-adult-and-adolescent-opportunistic-infections)

- Pneumocystis Prophylaxis (i.e., If CD4 ≤200 cells/μL, or ratio ≤13%)
  - TMP/SMX SS 1 tab PO daily or DS 1 tab PO daily for primary
  - TMP/SMX DS 1 tab PO daily for secondary prophylaxis
  - Alternative: alternative TMP/SMX dosing strategies, dapsone PO daily or pentamidine inhaled monthly
  - Continue until CD4 >200 cells/µL or ratio ≥14% for 3 months
- Toxoplasmosis (i.e., If CD4 ≤100 cells/μL)
  - Only indicated if *Toxoplasma* serology positive
  - TMP/SMX DS 1 tab PO daily
  - Alternative: dapsone PO + pyrimethamine PO + leucovorin PO
  - Continue until CD4 >100 cell/µL for ≥3 months
- Mycobacterium avium complex (i.e., If CD4 ≤50 cells/μL)
  - Not routinely recommended if taking ART
  - Alternative: Azithromycin 1200mg PO weekly
  - Continue until CD4 >100 cell/µL for ≥3 months



### Roadmap

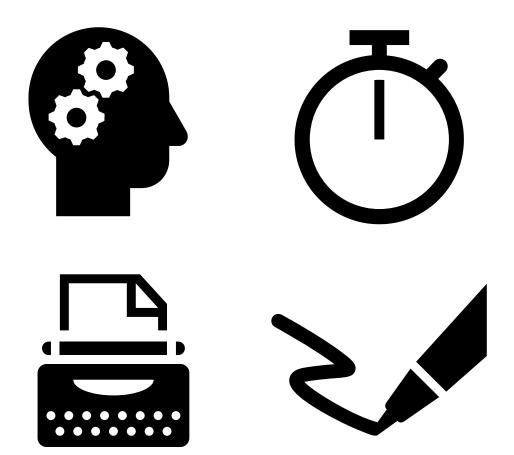
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## Active Learning: Counseling

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### Counseling at Initial Visit

- HIV infection and prognosis
- HIV transmission counseling (e.g., U=U, barrier precautions)
- Mental health assessment and supportive care
- Substance use assessment and resources
- Social support assessment and resources
- Treatment counseling (e.g., adherence, laboratory monitoring)

The patient and their concerns should be the primary focus!



# Primary Care for People with HIV

## Increased Risk

- Cardiovascular disease
- Diabetes mellitus
- Chronic kidney disease
- Osteoporosis
- Testosterone deficiency
- Tobacco use
- Obstructive lung disease
- Cancer

## Approach

- Evidence-based screening
- Guideline-based interventions
- Awareness of HIV adverse effects and drug-drug interactions
- "Primary care in the fast lane"



## MYTH: Delivering HIV Care is Too Challenging Outside Specialty Care

	HIV Care	Heart Disease Prevention
Assess risk	Take a past medical, family, social, sexual history Perform pertinent physical examination	Take a past medical, family, social history Check cholesterol and screen for diabetes Calculate 10-year ASCVD risk by ACC/AHA guidelines
Laboratory evaluation	Complete blood count, Comprehensive metabolic profile Immune function assessment HIV assays and associated infection screening	Comprehensive metabolic panel Cholesterol profile Hemoglobin A1C
Further risk reduction	Condom use Sexual health and substance use counseling STI screening	Lifestyle and diet modification counseling Treat comorbid conditions (e.g., hypertension, diabetes) Smoking cessation
Medication options	Several first-line single-tablet treatment options	Atorvastatin Rosuvastatin Pravastatin Pitavastatin Simvastatin Fluvastatin

**Specialty Care** 

MYTH: Delivering HIV Care is Too Challenging

#### se Prevention **HIV Care** Take a past medical, family, social, sex amily, social history Assess risk and screen for diabetes Perform pertinent physical examination ear ASCVD risk by ACC/AHA guidelines Complete blood cour prehensive metabolic panel **Laboratory evaluation** Comprehensive p nolesterol profile Immune functi Hemoglobin A1C HIV assay Lifestyle and diet modification counseling **Further risk reduction** ounseling Treat comorbid conditions (e.g., hypertension, diabetes) **Smoking cessation** ablet treatment options Atorvastatin **Aspirin Medication option** Rosuvastatin Pravastatin Pitavastatin Simvastatin

Fluvastatin

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## **Objectives**

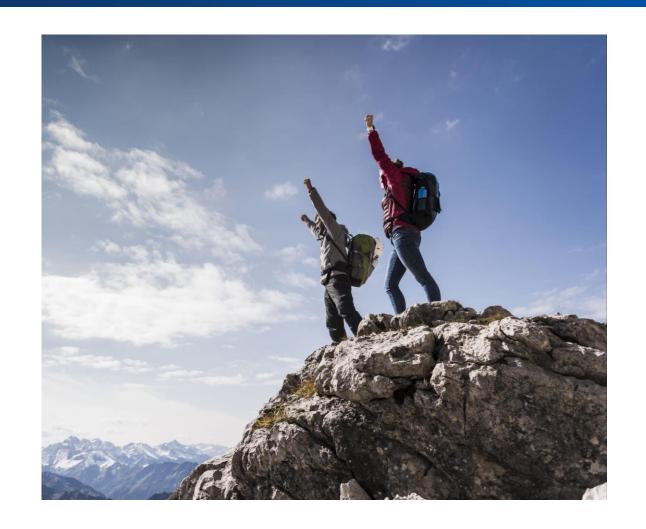
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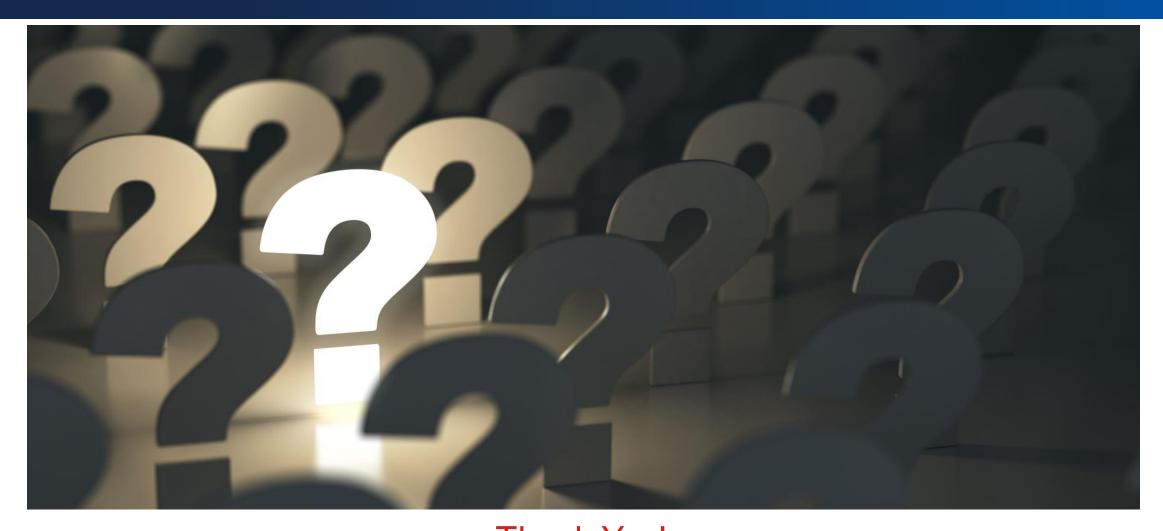
 Empower<u>ed</u> you to provide evidencebased care to a person with newly diagnosed HIV so that their health potential is optimized





### **AETC Program National Centers and National HIV Curriculum**

- National Coordinating Resource Center serves as the central web-based repository for AETC Program training and capacity building resources; its website includes a free virtual library with training and technical assistance materials, a program directory, and a calendar of trainings and other events. Learn more: https://aidsetc.org
- National Clinician Consultation Center provides free, peer to peer, expert advice for health professionals on HIV prevention, care, and treatment and related topics. Learn more: https://nccc.ucsf.edu
- National HIV Curriculum provides ongoing, up to date HIV training and information for health professionals through a free, web-based curriculum; also provides free CME credits, CNE contact hours, CE contact hours, and maintenance of certification credits. Learn more: www.hiv.uw.edu



Thank You!
Questions?
Cody.A.Chastain@VUMC.org

