
 **19th Annual HIV CONFERENCE**
May 14-15, 2010 • Orlando, FL

Establishing a Primary Care Plan for Your Patient

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Disclosure of Financial Relationships

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- **Speakers Bureau - Boehringer Ingelheim**

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OBJECTIVES

- This session will describe the baseline laboratory testing that are recommended for all patients entering HIV care as well as recommended follow-up screening. Tailoring the monitoring plan for the patient based on pertinent co-morbid conditions whether the patient is currently receiving antiretroviral therapy or not will be discussed. The speaker will summarize the primary care guidelines for the management of persons infected with HIV from the HIV Medical Association of the Infectious Diseases Society of America as well as recommendations from the *Guidelines for the Use of Antiretroviral Agents in HIV-1 infected Adults and Adolescents* from the Department of Health and Human Services.



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FIRST THING FIRST

- **Determine Positive Status**
 - Western Blot
 - or
 - HIV PCR (Viral Load)



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HIV/AIDS AS A CHRONIC DISEASE

- Similar to other chronic diseases, damage to the immune system may lead to other problems: hypertension, diabetes, high cholesterol, kidney disease, liver problems (due to side effects of medications)
- Chronic problems: fatigue, difficulty sleeping, loss of energy, depression, anger, fear
- Important to monitor S/S at each visit
- Good support system (friends, family)



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HIV/AIDS AS A CHRONIC DISEASE

- Personal challenges: unpredictable cycles of illness; altered body image from medications; feelings of loss, grief, anger; expensive, complicated treatments; deteriorating health and possible premature death



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BASELINE EVALUATION

- History of present illness
- Past medical history
- Medications and allergies
- Family medical history
- Review of systems
- Depression/mental health
- Social history
- Domestic violence



IDSA, 2009



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PHYSICAL EXAMINATION

- Vital signs
- Funduscopic exam
- Skin exam
- Oral cavity
- Lymphadenopathy
- Cardiopulmonary
- Anogenital
- Breast/pelvic
- Neurological exam/cranial nerve assess
 - Cognitive, motor, and sensory testing



AAHIVM, 2007
IDSA, 2009



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BASELINE LABORATORY EVALUATION



- HIV antibody (if not available)
- CD4 cell count
- Quantitative HIV RNA (viral load)
- HIV resistance testing (genotype)
- Complete blood count with differential
- Chemistry panel
- Viral Hepatitis screening
 - Hep A Ab (IgG or Total), Hep B surf Ag, Hep B surf Ab (Quant), Hep B cAb (IgG or total), Hep C Ab
- Glucose-6-Phosphate Dehydrogenase (G6PD)-optional
- Fasting lipid profile
- HLA B*5701 screening (Abacavir hypersensitivity)
- Urinalysis with calculated creatinine clearance

IDSA,2009



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DRUG RESISTANCE TESTING

- All HIV patients when enter care
- Changing ART regimen due to virologic failure
- Managing suboptimal viral load reduction-perform while taking ART or within four weeks of stopping
- All pregnant women
- If decision made to treat acute HIV infection

DHHS,2009



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ADDITIONAL TESTS

- Tuberculosis screening
- *Toxoplasma gondii*- Toxo IgG
- CMV (anti-CMV IgG) - optional
- Syphilis screening (RPR, if positive confirmatory FTA-ABS, MHA-TP)
- Sexually transmitted infections
 - Gonorrhea/chlamydia
 - (Male-urine Aptima®)
 - (Female- swab with PAP)
- Testosterone level-based on risk

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HELPFUL STUDIES

- **HLA-B*5701 Screening**
 - Recommended before starting Abacavir, to reduce risk of hypersensitivity reaction (HSR)
 - HLA-B*5701-positive patients should not receive Abacavir
 - Positive status should be recorded as an Abacavir allergy
- **Tropism testing**
 - CCR5 Inhibitor (Maraviroc)

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ASSESS FOR MENTAL HEALTH ISSUES

- HIV can affect mood, memory, and a person's ability to function
- AIDS dementia
- Counseling may help clients adhere to medical treatment and stay on meds
- Psychiatric disorders are increased with people with HIV, have increased risk of acquiring HIV if with psychiatric disorder
- Assess for: sexual/drug/alcohol usage, domestic violence (sexual/physical abuse), depression, memory changes, paranoia, mood disorders, adjustment disorders, anxiety, pain disorder, delirium, cognitive-motor disorder (impaired attention or concentration), personality change

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LABORATORY MONITORING SCHEDULE

	Entry into care	Follow-up before ART	ART initiation or switch ¹	2-8 weeks post-ART initiation or switch	Every 3-6 months	Every 6 months	Every 12 months	Treatment failure	Clinically indicated
CD4 T-cell count	√	every 3-6 months	√		√ ²			√	√
HIV RNA	√	every 3-6 months	√	√ ³	√ ⁴			√	√
Resistance testing	√		√ ⁴					√	√
HLA-B*5701 testing			√ (if considering ABC)						
Tropism testing			√ (if considering a CCR5 antagonist)					√ (if considering a CCR5 antagonist)	√
Hepatitis B serology ⁵	√		√ (may repeat if not unanane and if HIV Ag neg (-) at baseline)					√	√
Basic chemistry ⁶	√	every 6-12 months	√	√	√				√
ALT, AST, T. bilirubin, D. bilirubin	√	every 6-12 months	√	√	√				√
CBC with differential	√	every 3-6 months	√	√ (if on ZDV)	√				√
Fasting lipid profile	√	if normal, annually	√	√ (consider after starting new ART)		√ (if borderline or abnormal at last measurement)	√ (if normal at last measurement)		√
Fasting glucose	√	if normal, annually	√		√ (if borderline or abnormal at last measurement)	√ (if normal at last measurement)			√
Urinalysis ⁷	√		√			√ (patients with HIVAN)	√ (if on TDF)		√
Pregnancy test			√ (if starting EFV)						√

DHHS, 2009

HEALTH MAINTENANCE

- Mammography
- PAP
- Prostate specific antigen
- Bone densitometry
- Occult blood



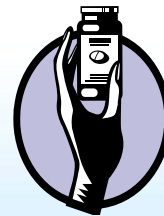
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PROPHYLAXIS FOR OPPORTUNISTIC INFECTION

- *Pneumocystis jirovecii* (CD4<200)
- *Toxoplasma gondii* (CD4<100) if IgG (+)
- *Mycobacterium avium* (CD4<50)

Refer to Florida/Caribbean AETC
OI pocket card for dosing



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RECOMMENDED VACCINES

- Diphtheria-Tetanus (every 10 yrs)
 - Substitute Tdap for next booster
- Pneumococcal (repeat X 1, 5 yrs later)
- Influenza A (every fall/winter)
- H1N1 (every fall/winter)
- Hepatitis A (if blood test is neg)
- Hepatitis B (if blood test is neg-series of three shots, check titer 30 days after series)



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ANTIRETROVIRAL THERAPY

- History of AIDS defining illness
- CD4 T cell count <350 cells/mm³
- Pregnancy
- HIV associated nephropathy
- Co-infection with Hepatitis B When treatment for Hepatitis B indicated
- Consider in some patients with CD4 >350 if in a discordant relationship (HIV sexual partner), high risk behavior, or other co-morbidities and if CD4 trend is downward nearing 350, or if patient experiences a rapid decline in CD4 (decrease of > 120 cells/mm³ per annum).

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CONSIDERATIONS IN INITIATING ART

- Willingness of patient to begin and the likelihood of adherence
- Degree of immunodeficiency (CD4 cell count)
- Plasma HIV RNA
- Risk of disease progression
- Potential benefits and risks of therapy



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CONSIDERATIONS IN INITIATING ART

- **ART should be considered life-long therapy**
- **Interruption of ART not recommended, except for serious toxicities or inability to take oral medications**
 - Usually causes immediate virologic rebound, with CD4 decline



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CONSIDERATIONS IN CHOOSING REGIMEN

- Co morbidities
- Adherence potential
- Dosing convenience
- Potential adverse effects
- Potential drug interactions
- Pregnancy potential
- Results of drug resistance test
- Gender and CD4 count, if considering nevirapine
- HLA-B*5701 testing, if considering abacavir

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ADHERENCE USING YOUR EARS

- Engage
- Assess
- Readiness
- Support



Anderson,2005



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ENGAGE

- Establish therapeutic relationship
- Address immediate needs
- Educate



ASSESS

- Stage HIV infection
- Mental health/cognitive abilities
- Physical ability
- Support systems and disclosure issues
- Readiness to begin medications



READINESS

- Integrates clinical need with lifestyle
- Solidify support systems
- Practice regimen
- Address adherence barriers



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SUPPORT

- Develop strategies for tolerability
- Provide ongoing support with frequent clinic visits/phone calls
- Acknowledge/address side effects
- Discuss support options- home, community



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Goals of Therapy

- Restoration and/or preservation of immunologic function
- Reduction of HIV-related morbidity and mortality
- Improved quality of life
- Prevention of vertical transmission
- Prevention of transmission to sexual partners
- Maximal and durable suppression of viral load

AAHIVM.2007



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HELP: PHONE CALL AWAY

- HIV Telephone Consultation
 - AETC- 1-866-352-2382

Post Exposure Consultation

- 1-888-448-4911

Perinatal HIV Consultation

- 1-888-448-8765



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ADAP REQUIREMENTS

- Western blot or detectable viral load
- CD4 within previous six months
- HIV PCR within previous six months
- Eligibility letter
- Re-enrollment every six months



ADVANCED CARE PLANNING

- Living will
- Health care surrogate
- Power of attorney (POA)
- DNR



CLINICAL PEARLS



- Organize chart
- Flow sheets
- Lab
- Medication record
- Antiretroviral record
- Resistance profiles
- Problem list
- **If chart thinned carry this info forward**



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QUESTIONS




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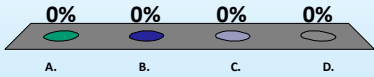
CASE STUDY
YOU ARE EVALUATING A PATIENT WITH THE
FOLLOWING LAB RESULTS,
WHAT IS THIS PATIENT'S STATUS?


- CD4-44 5.5%
- HgB 9.0
- HCT 28.8
- ALT-36
- AST- 42
- GFR >59
- BS-129
- HgbA1c-6.8
- Hep A AB (total) +
- Hep Bsurf Ag (+)
- Hep B sAB (-)
- Hep B cAB (+)
- HEP C AB (+)

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WHICH OF THE FOLLOWING IS TRUE
REGARDING PATIENTS STATUS?

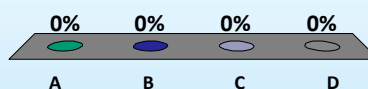
- A. HIV CDC classification C2
- B. Chronic active Hepatitis B co-infection
- C. Chronic Hepatitis C infection
- ✓ D. More information needed


A. B. C. D.

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WHICH OF THE FOLLOWING SHOULD BE INCLUDED IN INITIAL EXAM?

- A. Baseline lab studies
- B. Tuberculosis testing
- C. Physical exam
- ✓ D. All of the above

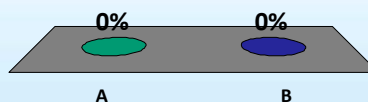


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THE PROVIDER SHOULD NOT DISCUSS END OF LIFE ISSUES UNTIL THE PATIENT IS CRITICALLY ILL AND PLACED IN HOSPICE?

- A. True
- ✓ B. False

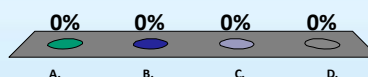


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ADAP REQUIRES WHICH OF THE FOLLOWING?

- A. CD4 and HIV PCR within the previous 12 months
- B. Patient re-enrollment every 2 years
- ✓ C. Proof of positive status
- D. Insurance card



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REFERENCES

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