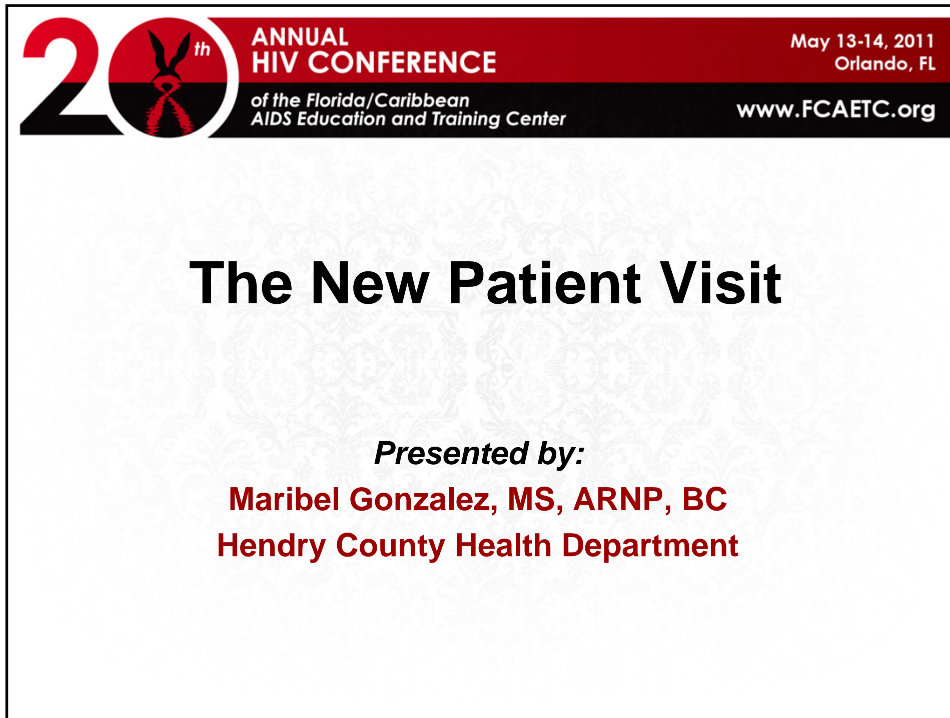
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The New Patient Visit
Presented by:
Maribel Gonzalez, MS, ARNP, BC
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  Florida/Caribbean AETC
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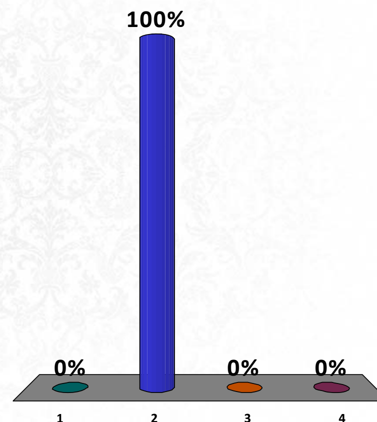
  Hendry County Health Department
  - Pat Dobbins, Administrator

Case Presentation

- A 27 year old heterosexual female presents for care at your clinic, referred by a DIS *(Disease Invention Specialist)* worker after testing positive for HIV.
- She presented for testing offered as a part of family planning services at a local clinic.
- She is c/o foul smelling vaginal discharge and thinks she may be pregnant.
- What's next?

What Do We Do Next?

1. I know exactly what to ask and what to do.
2. I am confident that I can address most of the issues with this patient.
3. I have good resources for any questions that might come-up.
4. I am completely new at this. Help – I just want to cry!



What Does She Know About HIV?

- **HIV is no longer a 'death sentence'**
  - Diabetes mellitus can be a useful analogy
    - Chronic, incurable disease.
    - Not immediately fatal.
    - Eventually requires medications in most cases.
    - Can usually be controlled with careful adherence, management, and follow-up.
    - As with the care of persons with diabetes, working in a team and providing continuing education is essential throughout the course of the disease.
- **Patients educated about HIV and the potential for resistance have better adherence to therapy[1, 2]**

1. Malow RW, et al. Alcohol Drug Abuse 1998;49:1021-4.
2. Tuldra A, et al. 39th Interscience Conference on Antimicrobial Agents and Chemotherapy; 1999; Abstract 595.

What Else?

- **General Future Expectation.**
- **Outline Plan.**
  - ➢Listen
  - ➢Observe
  - ➢Assess Suicide Risk
- **Social/Mental Health linkage.**

Social/Mental Health Linkage

- **Housing Opportunities for Persons with AIDS** *(HOPWA).*
- **AIDS Drug Assistance Program** *(ADAP).*
- **Ryan White Medical Services** *(varies by area)***:**
  - Dental
  - mental health
  - specialty care
- **AIDS Insurance continuation program** *(AICP).*
- **Patient Assistance Program** *(PAP).*

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Case Managers Play An Important Role

Set Goals

- Where do you want to be in 10 years?
- Where do you want to be in 20 years?
- Where do you want to be in 30 years?

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Case Presentation *(continued)*

- **How is she coping with the diagnosis?**
  Common responses :
  - "I've tried not to think about it, ever since I found out".
  - "I've watched so many friends die, and now I'm next".
  - "My friends tell me there's medicine for it and it's not that big a deal".
  - I don't want to die; how much time do I have left? Who is going to raise my children?

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Case Presentation *(continued)*

- **Ask About Sources of Social Support**
  - Friends/Family
  - Community Organizations
- **Offer Counseling**

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How and When Did She Contract HIV?

- **What Are Her Risk Factors For Acquiring HIV?**
  - She has tested positive for chlamydia in 2000, 2001, and 2007.
  - She also admits to unprotected sex with ETOH use; 3 partners in the last 5 years; 1 partner within the last year.
  - She knows EXACTLY when she might have contracted HIV; this was her 2nd HIV test in the past year.
- **Risk Factor Identification Can Guide Counseling and Prevention**

Why Do We Care About When She Contracted HIV?

Why Do We Care About When Contracted

- **Resistance**
  - Increasing transmission of drug-resistant HIV strains
  - Resistance testing generally indicated for patients newly infected (ability of currently available resistance assays to detect resistance wanes with time)
- **Primary HIV Infection (PHI)**
  - Loss of HIV-specific CD4 cells occurs immediately after PHI

1. Lisziewicz J et al. N Engl J Med 1999;340:1683.
2. Walker BD. Nature 2000;407:313-4.

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Past Medical History

- ETOH use socially.
- No other recreational drug use.
- Denies tobacco use.
- Depression.
- Self-harming behavior/cutting.

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Medications

No current medications.

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HIV 101 for Patients

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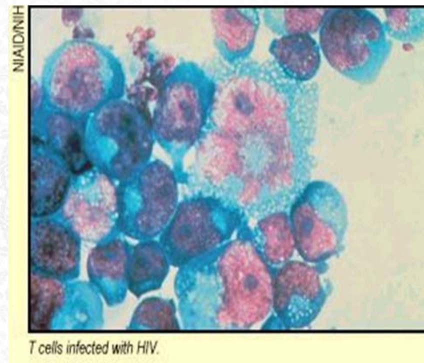
How does HIV cause AIDS?

- HIV infects and destroys an important type of cell in the body's immune system known as the T-helper (T_H) cell, also known as the CD_4 cell.



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How Does HIV Cause AIDS?

- CD4 cells direct and coordinate other cells in the immune system to battle infections.
- When CD4 cells are destroyed, the body loses its ability to fight off infections.

(Photo by Wes Anderson)

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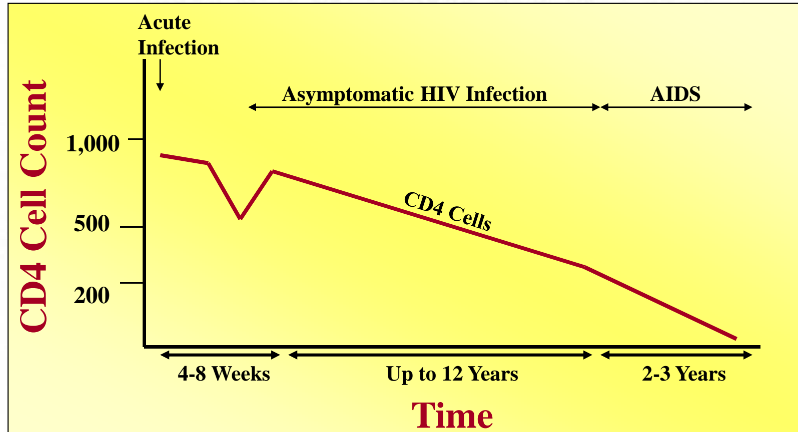
HIV Infection is Characterized By A Steady Decline in the Number of CD4 Cells



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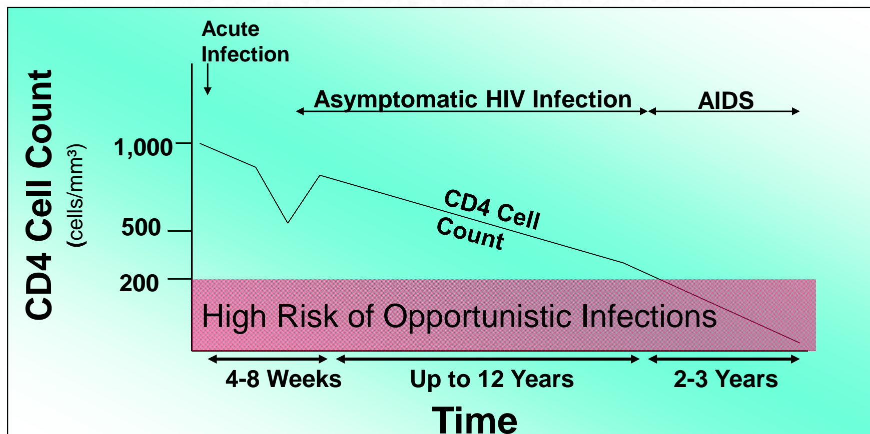
HIV Infection Is Characterized By A Steady Decline In The Number of CD4 Cells



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How Does HIV Cause AIDS?

- Infections that develop as a result of HIV-inflicted damage to the immune system are called "Opportunistic Infections" *or* "OI's".
- When someone with HIV develops an opportunistic infection, they are diagnosed with AIDS.

(CNN)

AIDS Definition *(continued)*

- CD4 drops below 200.
- CD4 % below 14%.

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How Does HIV Cause AIDS?

- Over 20 years ago, virtually all patients diagnosed with AIDS died within a few years
- Currently, with treatment, many patients diagnosed with AIDS are surviving many years with the disease

What is "Viral Load"?

- The HIV viral load is simply a measure of the quantity of HIV in a drop (mL) of a patient's blood, and it is usually measured in copies/mL.
- In general, the higher the viral load, the faster CD4 cells are destroyed.

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DHHS Guidelines

- **Lab staging of the disease:**
  - VL – quantitate the viral burden
  - CD4 – measure of immune function

Other lab studies:
- CBC – anemia, thrombocytopenia common
- LFTs – baseline for later Rx
- RPR – one STD (HIV), may be others, and syphilis may progress rapidly in HIV
- Hep A, B, C serologies – may need to vax or Rx – hep C accelerated with concurrent HIV, major cause of death
- Toxo IgG – re risk if low CD4 (<100), need for prophy
- GC/Chlam
- Basic chemistry

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Evaluation of the Patient DHHS Guidelines

- **Resistance testing**
- **Fasting lipids**
- **Fasting glucose**
- **Urinalysis**

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services.
January 10, 2011; 1-174.
Available at http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL_PDA.pdf
Accessed (March 23, 2011) page 4.

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Optional Testing

- G6PD
- CMV IgG
- Toxo IgG
- HLA-B*5701
- Tropism Testing
- Pregnancy Testing

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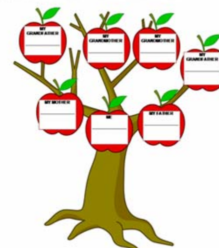
Evaluation of the Patient

- **History**
  - HIV-associated symptoms – if present, indication for Rx
    - fatigue, intermittent fevers, diarrhea, or night sweats, oral lesions, rashes, adenopathy.
    - hx of OIs *(explore possible mis-diagnoses)*
  - Co-existing conditions and meds *(including OTC).*
  - Family Hx – especially DM, HBP, Heart Dz, Ca, Blood Dyscrasias .
  - SHx – travel, pets, vax Hx, water source, sexual orientation and practices *(re HIV risk),* drug use, family and personal supports, HIV knowledge base.
  - Do A Thorough ROS (Review of Systems) for baseline.



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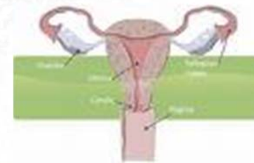
Evaluation of the Patient

- **PPD - > 5mm induration is positive in HIV**
- **CXR – if +PPD or symptomatic**
- **Pap smear**
  - In females, especially if none in past year
  - Consider rectal Pap if sexual practices include receptive anal intercourse (both sexes, especially if multiple partners, genital warts on exam)



Guidelines for Initiating ART: In Treatment Naïve Patients

Clinical Category or CD4 Count	Recommendation
• History of AIDS-defining illness • CD4 count <350 cells/µL • CD4 count between 350-500 cells/µL • Pregnant women • HIV-associated nephropathy • Hepatitis B coinfection, when HBV treatment is indicated*	Initiate ART

- Treatment with fully suppressive drugs active against both HIV and HBV is recommended.

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. January 10, 2011; 1-174. Available at http://aidsinfo.nih.gov/contentfiles/AdultandAdolescentGL_PDA.pdf Accessed (March 23, 2011) page 7.

Guidelines for Initiating ART

Clinical Category or CD4 Count	Recommendation
CD4 count of >500 cells/mm3, asymptomatic, without conditions listed above.	Optimal time to initiate ART is not well defined. Panel members evenly divided. Consider individual patient characteristics and co-morbidities.

Resources for Assistance

- **There is Rarely An Urgency for ARV treatment**
  - Florida/Caribbean AETC (www.fcaetc.org)
  - http://www.aidsetc.org
  - http://www.aidsinfo.nih.gov

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Social History

- Recently engaged, 3 children *(ages 3, 5, & 9)*
- Born & raised in Florida.
- Close with family but does not feel she can disclose at this time. Wants to live to raise her children.
- Unemployed.

Review of Systems

- Increased abdominal girth, thinks she may be pregnant.
- Feelings of sadness, depression.
- No suicidal ideations.
- Has hope for the future.
- History of AUSCUS pap 10/2009.

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Physical Exam

- Weight 119#, Height 4’11”, Temp: 98.5 F
- B/P: 142/88, Pulse: 64 bpm, Resp: 20
- Urine hcg: negative
- AAx3; WD; HEENT: poor dentition; otherwise WNL; Heart: RRR, S1S2; Lungs: CTAB; ABD: BS present X 4 quadrants; No lymphadenopathy; Neuro: nonfocal
- Genital: deferred for next appt.

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Ordered This Visit

- Majority of the visit time spent counseling regarding condom use and risk reduction.
- Variety of condoms provided along with instructions.
- Pt developed personal goals: to increase condom use from 50% to 75% of the time and to experiment with different types of condoms.
- Peer counseling.
- Continue mental health visits.

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Ordered This Visit *(continued)*

- CD4
- CBC
- HIV VL
- CMP
- HIV genotype
- Toxo IgG
- Outreach/Counseling referral
- Lipids
- RPR
- Urine Aptima Gc/Chlam
- PPD placement
- Hep A, B, C serology

Optional:

- HLA-B5701
- G6PD
- CMV IgG

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3 - 4 Weeks Later

- CD4: 455
- CD4%: 18.2
- VL: 22,380, log: 4.350
- CBC: WNL
- CMP: WNL
- RPR: NR
- PPD: did not return for reading
- Gc/Chlam: neg
- Lipids: WNL

- G-6-PD: WNL
- Toxoplasma gondii Ab, IgG: neg
- Hep A IgG: neg
- Hep BsAg: neg
- Hep BsAb: neg
- Hep BcIgG: neg
- Hep C Ab: neg
- Genosure: NNRTI and PI mutations

3 - 4 Weeks Later *(Continued)*

- Pap and pelvic today.
- Anal cytology.
- Family Planning: LoOgesterol #3 cycles
- Reports her condom use up to 75% of the time.
- She misses when she drinks socially.
- ?medication from psychiatrist.

- Repeat CD4 and VL for trend.
- Quantiferon Gold.
- Continue outreach and mental health counseling.
- Request records from mental health.
- Assess readiness to initiate ARV.

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Two Months Later

- CD4: 326
- CD4 %: 16.3
- VL: 141,610
- Log VL: 5.151
- Pap: AUSCUS

- Has discontinued counseling sessions.
- Continues to miss using condoms with social ETOH.
- Follows with gyn for abnormal pap.
- Admits to wanting 4th child.

Three Months Later

- Cd4: 245
- Cd4%: 13.6
- VL: 121,820
- Log VL: 5.086

- Team approach: to discuss importance of ARV at this point.
- Consider childbearing potential.
- Counsel pt and partner separately and together.

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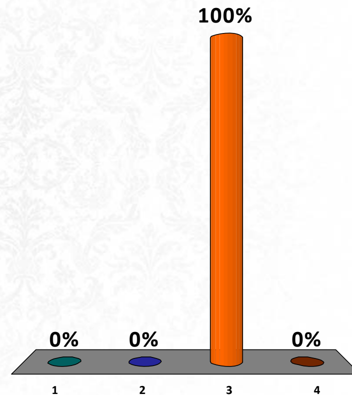
What Level Are You Now?

1. I know exactly what to ask and what to do.
2. I am confident that I can address most of the issues with this patient.
3. I have good resources for any questions that might come-up.
4. I am completely new at this. Help – I just want to cry!



Summary

- Started Kaletra *(Lopinavir and Ritonavir)* and Combivir *(Lamivudine and Zidovudine)*
- Counseled regarding implications to fetus during first trimester.
- Continue monthly monitoring of CD4 and VL until undetectable.

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Questions & Answers

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