World AIDS Day
“Universal Access & Human Rights”

Beyond HIV/AIDS 101: HIV Pathophysiology to Medical Intervention

December 1, 2009

Funding provided by
Health Resources Services Administration (HRSA)
Grant # 5-H4A-HA-00066-00
HIV Prevention for Persons HIV Positive & HIV Negative
Sexual Risk and Prevention Assessment
Tailored Interventions

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Pre-Test
STD rates are increasing among HIV positives

a. True
b. False
c. Unsure
The following group(s) should be offered HIV and STD testing

a. Patients with multiple sex partners
b. Heterosexual patients
c. Patients over the age of 55
d. Heterosexual patients that are over the age of 55
e. All of the above
f. Unsure
Which of the following is a common misconception about HIV transmission?

a. You can’t transmit HIV when your viral load is undetectable?

b. Oral sex is safer than vaginal intercourse without a condom?

c. HIV can be transmitted to an infant during labor and delivery

d. HIV is easier to transmit when you also have an STD

e. Unsure
Tailored intervention are strategies designed to change a person’s:

a. Knowledge and concern
b. Knowledge, attitude and behavior
c. Concern, attitude and behavior
d. Knowledge and behavior
e. Unsure
The following STD(s) can not be transmitted orally:

a. Herpes (HSV) I and II
b. Gonorrhea (GC)
c. Chlamydia
d. Syphilis
e. HPV
f. HIV
g. All of them can be transmitted orally
h. Only a, c, and d can be transmitted orally
i. None of them can be transmitted orally
j. Unsure
Workshop Objectives

Upon the conclusion of this workshop, participants will have an enhanced ability to:

- Explain specific strategies to include assessments during office visits
- Describe tailored interventions
- Discuss the importance of brief and doable behavioral interventions and referrals for more intensive interventions
Modes of Transmission

• Sexual (Heterosexual & Homosexual)
  • Unprotected Sex
    • Risky Sexual Activities:
      • Anal Sex
      • Vaginal Sex
      • Oral Sex
        • Unhealthy Oral Cavity
    • Sex for Drugs
    • Multiple Sex Partners
    • Serial Monogamy

• Blood Contact
  • Injection Drug Use
  • Transfusion History
  • Occupational & Non-Occupational Exposure

• Peri-natal
  • Rare with Treatment

• Breast Feeding
  • Rare with Perinatal Alternative Bonding Techniques
Transmissible Infections by Oral Sex

- Herpes (HSV) I and II
- Gonorrhea (GC)
- Chlamydia
- Syphilis
- HPV
- HIV
What are the Recommendations?

Medical providers can **substantially affect HIV transmission** when they

- screen for risk behaviors
- identify & treat other STDs
- communicate prevention messages
- discuss sexual & drug-use behavior
- positively **reinforce** changes to safer behavior
- refer patients for services (substance abuse treatment)
- facilitate partner notification, counseling, & testing

CDC/HRSA/NIH/IDSA Recommendations
What is the rationale for this new emphasis?

- “Every HIV transmission event involves a person already HIV infected” (IOM)
- Those living with HIV are fewer in number and easier to define than those at risk
- Most HIV+ persons have contact with healthcare system
- Better prevention services to HIV+ will improve their health outcomes

Prevention = Care
Why is it Important NOW?

- Emerging trends among the HIV-infected:
  - Increases in unsafe sex
  - Increases in syphilis, gonorrhea
  - Transmission of drug-resistant virus

- STDs increase amount of HIV shed at genital mucosa (cervix, urethra, rectum)
  - Directly increases risk of transmitting HIV
  - HIV infection is increasing in vulnerable minority populations, especially women

(Rietmeijer, Chen, Collis, Novak, Tang, Weinstock, Blackard, Jost, Erbelding)
Estimated Number of New HIV Infections Annually
56,300 for 2006

Estimated Number of Annual Infections (X 1,000)


Ask Screen Intervene
Impact of Treatment

HIV Treatment Works!

Early treatment is making a difference.

FREE HIV Testing and Treatment
1-800-367-2437

County of Los Angeles • Department of Health Services • Office of AIDS Programs and Policy

NMAETC
National Minority AIDS Education and Training Center
The Youth Factor

- Not exposed to fear of AIDS
- Not exposed to typical prevention messages
- “Invincibility”
- Lack of significant support systems
HIV Prevention: Challenges in a Third Decade

- HIV/AIDS seen as a chronic illness
- Persons with HIV (and their providers) weary of prevention messages
- Role of medical providers in HIV prevention arena de-emphasized
- HIV incidence static despite ongoing prevention efforts of increasing scale
Awareness of Serostatus among Persons with HIV & Estimates of Transmission

Estimated: 1,200,000 PLWH in US
Estimated: 56,300 new infections/year

~75% aware of infection
~25% unaware of infection

45%
55%

P. Fleming 9th CROI, 2002
Gary Marks, CDC, 2004
The Impact of STDs on Sexual Transmission of HIV

- STDs increase susceptibility to and infectiousness of HIV infection
- Risk of HIV transmission is 2 to 5 times higher in the presence of other STDs

SO..........  

- Risk screening and STD screening is an effective intervention for reducing HIV transmission

(Wasserheit & Fleming, 1999)
Median Concentration of HIV-1 RNA in Semen Among 135 HIV-Infected Men With (n=86) & Without (n=49) Urethritis in Malawi

Association between Urethritis and Semen Viral Load
Suggests that HIV-infected persons co-infected with other STI may be more likely to transmit HIV

MSM Prevalence Monitoring Project – Test positivity for gonorrhea, chlamydia, & HIV & sero-reactivity to syphilis by race/ethnicity, STD clinics, 2005

Blacks and Hispanics represent only about 13% and 18% of the population respectively

*Excludes persons previously known to be HIV-positive
†Sero-reactivity

(CDC, 2006)
HIV Status Among MSM
Primary & Secondary Syphilis Cases\(^1\)
California, 2001-2006

1 - Includes only interviewed cases
2 - HIV+ percents excludes unknown HIV status

Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of cases</th>
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<td>2001</td>
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<td>2005</td>
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\(^{1}\) 12/2007 Provisional Data - CA DHS STD Control Branch
HIV/AIDS Rates by Race/Ethnicity
2001 - 2004

Source: CDC 2007
A Missed Screening Opportunity...

- Tony is a 40 year-old HIV-positive man
- CD4 = 350, viral load undetectable, on HAART
- Comes in with his girlfriend, feeling well
- Volunteers that his girlfriend recently had a yeast infection
- Around the same time, he noticed an area of irritation on his penis, resolved after using miconazole cream
A Missed Screening Opportunity…

- Physical exam, including external genitalia: normal
- Continue current regimen
- Routine follow-up scheduled for 3 months
A Missed Diagnostic Opportunity...

- Returns two weeks later
- Rx topical steroids, referred for dermatology follow-up
A Missed Opportunity…

- Dermatology orders RPR: reactive at titer of 1:128
- Returns, and reports receptive/insertive anal and oral sex with 5 male partners in prior 3 months
- Uses Internet to meet partners, mostly anonymous
- ‘Almost always’ uses condoms with them, while reports no condom use with girlfriend

What went wrong?
HIV Self Assessment Survey of HIV Care Providers Suggests “Needs” Despite “Comfort”

749 respondents (30%) RR

70% Strongly Agree
43% Agree
0% Neutral
20% Disagree
80% Strongly Disagree

Comfort Discussing Sexual Risks

Skill Level Discussing Sexual Risk

(Courtesy Vogel – HIVMA, 2005)
Proportion of Physicians Discussing Topics with HIV-Positive Patients

4 US Cities (n=317)

- Adherence to ART 84%

(Clin Infect Dis 2003; 36: 1577-84)
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Proportion of Physicians Discussing Topics with HIV-Positive Patients

4 US Cities (n=317)

- Adherence to ART 84%
- Condom use 16%
- HIV transmission and/or risk reduction 14%

(Clin Infect Dis 2003; 36: 1577-84)
Provider Barriers to Screening for Behavioral Risk Factors

- Inexperience or discomfort asking questions
- Discomfort responding to issues that arise
- Incorrect assumptions about sexual behavior and risk
- Patient perception of stigma from a medical care provider
- Limited time is available
- Perceived re-imbursement issues
Barriers Identified from HIV Self Assessment Survey

- Major barriers to discussing high-risk behaviors:
  - Other priorities (69%)
  - Lack of time (67%)
- Other:
  - Language (20%)
  - Lack of (or inadequate) reimbursement (19%)
  - Patients’ discomfort with subject (15%)
  - Cultural differences with patient (11%)

(Courtesy Vogel – HIVMA, 2005)
Overcoming Barriers

- Identify specific questions to ask all patients
- Train providers to enhance competence
- Develop clinic policy for risk screening and integration into overall care (When and Where)

Questionnaire:

Computer Assisted Self-Interviewing (CASI)

- Develop plan to respond to information that might surface
- Determine ways to overcome stigma
Discomfort as a Barrier

“Ironically, it may require greater intimacy to discuss sex than to engage in it.”

The Hidden Epidemic
Institute of Medicine, 1997
Percent AIDS & HIV (not AIDS) Cases in the National HIV/AIDS Reporting System with No Identified Risk Factor, 1985 to 2004

- HIV infection (not AIDS)
- AIDS
“Whoa—way too much information.”
An Initial Presentation

- Helen is a 60 year old widow
- Lives in a retirement community
- HTN, new Diabetes, skin rashes, some neuropathy
- No history of operations, accidents, blood transfusions
- Smokes 1/2 ppd
- Drinks 1 bottle of “good wine” a week
Married for 40 years, 5 sons grown
Husband died 3 months ago in ? Overdose sleeping pills
Feeling depressed and weak since then
Seen regularly by LMD
Mild anemia, 21 lb weight loss
Reports only 1 sexual partner in her lifetime
Tested 2 months ago for HIV+ for change in insurance
“Good news, honey—seventy is the new fifty.”
Helen

- Risk factors
- History of Present Illness
- Stage of HIV
- Barriers to Care
  - Plans to resolve barriers
    - Knowledge
    - Skills
    - Readiness to Change
    - Behavior Modification
      - Tailored Intervention
History of Present Illness

Common presenting symptoms associated with HIV, but too common?

- Headache
- Skin Rashes
- Diarrhea
- Cough and SOB
- Fever
- Blurred Vision
- Oral, esophageal and vaginal candidiasis
ASI Module One

- Identify risk screening benefits
  - Provider perspective
  - Patient perspective

- Describe the difference between screening for risk and assessing for in-depth risk behaviors

- Develop techniques for asking about risk

- Identify timeline for offering screening tests for STIs in an HIV practice setting
Identifying Risk: Benefits

• **Clinician Perspective**
  • Assists in clinical intervention/exam
  • Provides focus for an in-depth risk assessment and direction for risk reduction or referral
  • May identify persons with acute HIV infection who may be more infectious

• **Patient Perspective**
  • Opportunity to ask questions
  • May affect self-motivation for behavior change
  • Patients want to have these discussions yet often will not initiate on their own
Structural Interventions to Support and Enhance Prevention

**Patient Prompts**
- Posters
- Brochures
- Condoms
- Prescriptions
- Peer educators

**Provider Prompts**
- Local opinion leader
- Computer reminders
- Chart stickers
- Screening tools
  - Patient administered
  - Provider administered
- Posters
- Inclusion of risk screening in chart review
What are Prevention Messages?

Statements that emphasize the need for safer behaviors to protect both the patient’s health and the health of her/his sexual or needle-sharing partners.
What are Misconceptions?

Incorrect assumptions or beliefs patients may have about HIV transmission
Tailored intervention

Patient Education
- Knowledge

Tailored Intervention
- Knowledge
- Attitudes/ Beliefs
- Behaviors
- Circumstances
- Skills
- Readiness
Small Groups

• **Case Studies**
  • Develop a list of questions
  • Determine the primary problem
  • Determine the secondary problem
  • Possible provider barriers to care
  • Possible patients barriers to care
  • Develop a Tailored Intervention
    • Report Back
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b. False
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0% 0% 0% 0%
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Thank You