



Journal Club

03 September 02

HIV Postexposure Prophylaxis
Literature Review

HIV Transmission Fluids

- Blood
- Semen
- Vaginal secretions
- Breast milk

Concern/Fear

- Over 90% of victims reported some fear during rape or post rape about HIV
- Reasons include:
 - The assailant may have raped others, and HIV is so common
 - The assailant was a stranger
 - Physical appearance of the assailant

HIV postexposure prophylaxis

- Combination of HIV medications that, if taken within 72 hours and for 28 days, may reduce the chances of contracting HIV.
- No data exist regarding the effectiveness of HIV PEP for sexual violence survivors

Factors for HIV PEP

- The Centers for Disease Control and Prevention (CDC) recognizes five variables for HIV PEP use:
 - Consider the probability that the perpetrator is HIV-infected
 - Consider the likelihood of transmission by the particular exposure
 - Consider the interval between exposure and initiation of therapy
 - Consider the efficacy of the drug(s) to prevent infection
 - Consider the patient's adherence to the drug(s) prescribed

Consider the probability that the perpetrator is HIV-infected

- Utah has a very low rate of HIV infection as compared to other states.
- Currently, there are 1,529 people living with HIV infection or AIDS
 - .38% of national cases
- 16 in every 100,000 Utah men carry the HIV virus
- This translates into lower risk, as compared to other states

Consider the likelihood of transmission by the particular exposure

- Penile-Vaginal transmission
 - 1 in 500 or .2%
- Penile-Anal transmission
 - 15 in 500 or 3%
- Risk for receptive oral exposure is unknown, but cases have been reported

Consider the interval between exposure and initiation of therapy

- Animal studies suggest that HIV PEP is:
 - Most effective if started within the first two hours after exposure
 - Not effective if started after 24-36 hours after exposure

Consider the efficacy of the drug(s) to prevent infection

- Even with perfect use of HIV PEP, the effectiveness of the medication to decrease the risk of HIV infection is 81%

Consider the patient's adherence to the drug(s) prescribed

- Taking the medication for the full 28 days is vital
- If the medication is not taken for the full 28 days, it greatly reduces the efficacy of the drugs
- Patients who do not complete treatment have the risk of becoming infected with an HIV strain that is resistant to current HIV treatments
- Studies indicate that over half of the patients stop treatment early

Side effects and toxicity

- Nausea
- Vomiting
- Diarrhea
- Lipid abnormalities
- Development of diabetes mellitus
- Hyperglycemia
- Diabetic ketoacidosis
- Nephrolithiasis
- Hepatitis
- Pancytopenia

Side effects and toxicity

- 50%-90% of patients experience side effects
- 24%-50% of patients experience side effects severe enough to stop treatment earlier

Who is HIV PEP right for?

- HIV PEP can be beneficial for rapes that involve behaviors with high per-act infectivity (e.g. receptive anal intercourse)
- HIV PEP might not be beneficial for rapes with low per-act infectivity or involving assailants at low risk for HIV infection

CDC statement

- Currently, the CDC does not advocate for or against HIV PEP for victims of sexual assault
- Treatment should be reviewed on a case-by-case basis

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