

AIDS and Other Human Diseases
Intd 219
Review Sheet for Exam 2

- I Testing for HIV
 - A. Purpose of testing
 - B. Indirect Tests
 - 1. What is the basis for these tests?
 - 2. ELISA
 - 3. Western Blot
 - 4. Limitations of these tests
 - A. False negative vs. False positive
 - B. Specificity vs. Sensitivity
 - 5. Seroconversion
 - 6. Why need to be tested twice?
 - C. Direct Tests
 - 1. Polymerase Chain Reaction
 - 2. Viral Load
 - D. Rapid Tests
 - E. Home testing kits
 - Pros and cons

- II Treatments
 - A. Purpose of the drugs
 - B. Biological basis for how drugs work
 - C. Types of drugs
 - 1. Nucleoside Analog Reverse Transcriptase Inhibitors
 - 2. Protease Inhibitors
 - 3. Fusion Inhibitors
 - D. HAART
 - 1. Advantages and why
 - 2. Why do mutations in the virus occur?
 - 3. How do these mutations lead to drug resistance?
 - 4. What are side effects due to?

- III Transmission of HIV
 - How is HIV transmitted from one person to the next?

- IV Prevention
 - A. How can one prevent HIV transmission from one person to the next?
 - B. Needle Exchange Programs
 - C. Partner Notification Programs
 - D. Vaccines
 - 1. What is the purpose of a vaccine, and what is a vaccine?
 - 2. How are traditional vaccines designed to work?
 - 3. How are the experimental DNA vaccines designed to work?

- V And The Band Played On
- A. Involvement of the CDC
 - B. National Politics
 - C. Politics within the Gay Community
 - D. Politics within the Scientific Community
 - E. Scientific process of investigation
 - F. Involvement of the Blood banks
- VI United States Epidemiology
- What groups of people are most impacted by the disease today?
- VII Origin of HIV
- A. Natural host species
Why virus does not affect the host.
 - B. Factors that cause the virus to jump to a new species.
 - C. Why is new species decimated by new virus.
 - D. Host species for HIV and evidence.
- VIII Duesberg
- What arguments does Duesberg make against the HIV theory of AIDS and in support of his Drug Abuse theory of AIDS?
- What is the evidence that supports that HIV is the cause of AIDS?
- IX AIDS in Africa and around the World
- A. Factors leading to the spread of AIDS in Africa
 1. Economic
 2. Sociocultural
 3. Political
 - B. What are the costs of AIDS in Africa
 1. Human
 2. Social
 3. Economic
 - C. Intervention
Philosophy of most intervention programs based on containment and prevention.
 - D. South Africa vs. Uganda
 1. Recent political history of both countries
 2. AIDS policies in both countries
 3. How has the prevalence of HIV/AIDS in both countries changed with time? (general trends and not specific numbers)
 - E. Brazil and International Patent Law
 - F. What should the United States do?