HIV
What you need to know as an interpreter

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HIV AND VIRAL HEPATITIS FELLOWS
FAMILY HEALTH CENTER OF WORCESTER
Objectives

- Basic virology/immunology
- Transmission routes
- Prevention
- Treatment
- Common myths
Some virology

HIV-1

HIV-2

Image source: NAID
Where does HIV go?

- Genital/rectal mucosa
- Target cells: dendritic cells, CD4+ T-Cells
- “founder” population with “eclipse”
- Local expansion and drainage into lymphatic system

Source: http://www.microbiologybook.org/
1. Fusion of HIV to the host cell surface.
2. HIV RNA, reverse transcriptase, integrase, and other viral proteins enter the host cell.
3. Viral DNA is formed by reverse transcription.
4. Viral DNA is transported across the nucleus and integrates into the host DNA.
5. New viral RNA is used as genomic RNA and to make viral proteins.
6. New viral RNA and proteins move to the cell surface and a new, immature, HIV forms.
7. The virus matures by protease releasing individual HIV proteins.

Image source: NIAID
Modes of Transmission

The most common methods of transmission of HIV are:

1. Unprotected sex with an infected partner
2. Sharing needles with infected person

Almost eliminated as risk factors for HIV transmission are:

1. Transmission from infected mother to fetus
2. Infection from blood products
HIV IS NOT TRANSMITTED BY...
Fig. 8. The locomotive model relating progression to virus load and CD4+ T-cell level.
HIV testing

- Verbal Consent
- Confidentiality, partner notification rules
- Blood test
- Results within 2-3 days
Treatment and monitoring

- Treat everyone regardless of CD4 count
- Requires multiple drugs, usually 3 drugs but can be 1 pill daily
- Treatment only works if taken daily
- Risk of Resistance if taken inconsistently
- Visits/labs initially monthly then can be 3-6 months once stable
## Treatment options

<table>
<thead>
<tr>
<th>HIV Drug Chart</th>
<th>Triumeq</th>
<th>Genvoya</th>
<th>Atripla</th>
<th>Complera</th>
<th>Stribild</th>
<th>Odefsey</th>
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This quick-reference chart compares available medication options, including dosing and dietary restrictions.
TREATMENT AS PREVENTION
Prophylaxis for opportunistic infections
Demystifying HIV

- HIV perceived as a death sentence
- The origin of HIV
- Can I stop my medications if the virus is not detectable in my blood?
- Can I stop my medications if I have no symptoms and I feel fine?
- Is there a vaccine or cure for HIV?
- Herbal supplements, local remedies
- Stigma