A Team-Based Approach to Reducing HIV Viral Load in Patients Experiencing Homelessness

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Learning Objectives

- Identify primary barriers to adherence and engagement in medical care for people living with HIV who are experiencing homelessness

- Describe interdisciplinary strategies for reducing HIV viral load

- Translate this work to engaging people experiencing homelessness and other co-morbidities such as mental illness, diabetes, or Hepatitis C
HIV 101 Pop Quiz

✓ HIV and AIDS are the same thing  **FALSE**

✓ In what year was a combination drug treatment discovered that effectively halted the progression of HIV?
   a. 1989
   b. 1996
   c. 2008
   **b. 1996**

✓ HIV-positive people were banned from travelling to the U.S. until what year?
   a. 1992
   b. 1999
   c. 2010
   **c. 2010**
HIV 101 Pop Quiz

✓ HIV can be transmitted through saliva  **FALSE**

✓ What does it mean to have an undetectable viral load?

✓ Having an undetectable viral load greatly reduces the chances of transmitting the virus to HIV-negative sexual and needle-sharing partners  **TRUE**

✓ Someone diagnosed with HIV in the U.S. soon after infection and receiving treatment has a near-normal life expectancy  **TRUE**
HIV Medicines Help People with HIV Live Longer (Average years of life)

- A person without HIV: 79 years
- A person with HIV diagnosed at age 20 taking current HIV medicines: 71 years
- A person with HIV diagnosed at age 20 not taking current HIV medicines: 32 years

HIV Prevalence in Urban Poverty Areas 2006-07

Multnomah County Health Department
Health Services Center

1990
1,400
17,000
Multnomah County Health Services Center Patient Profile 2015

- 29% have a substance use issue
- 56% are living with a mental health diagnosis
- 15% speak languages other than English
- 20% of clients experience homelessness and/or housing instability each year
HIV Time Course

- **Infection**
- **Acute HIV Syndrome**
- **Clinical Latency**
- **AIDS Symptoms**
- **Death**

- **CD4+ Lymphocytes (cells/mm³)**
- **HIV RNA Copies/ml**

- **Weeks**
- **Years**
Viral Load Suppression

- Individual patient health
- Community viral load
- Standard of care
# HIV Medications

## Nucleoside/Nucleotide Analogs (NRTIs)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Abbreviation</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combivir</td>
<td>zidovudine/lamivudine</td>
<td>300 mg</td>
</tr>
<tr>
<td>Emtriva</td>
<td>emtricitabine/FTC</td>
<td></td>
</tr>
<tr>
<td>Epivir</td>
<td>lamivudine/3TC</td>
<td></td>
</tr>
<tr>
<td>Epzicom</td>
<td>abacavir/lamivudine</td>
<td></td>
</tr>
<tr>
<td>Retrovir</td>
<td>zidovudine/ AZT</td>
<td></td>
</tr>
<tr>
<td>Trizivir</td>
<td>abacavir/ lamivudine</td>
<td>300 mg</td>
</tr>
<tr>
<td>Truvada</td>
<td>emtricitabine/tenofovir DFT</td>
<td></td>
</tr>
<tr>
<td>Videx, Videx EC</td>
<td>didanosine/ddi</td>
<td></td>
</tr>
<tr>
<td>Viread</td>
<td>tenofovir DF or TDF</td>
<td></td>
</tr>
<tr>
<td>Zerit</td>
<td>stavudine or d4T</td>
<td></td>
</tr>
<tr>
<td>Ziagen</td>
<td>abacavir or ABC</td>
<td></td>
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</tbody>
</table>

## Multi-Class Drug Combinations

<table>
<thead>
<tr>
<th>Drug</th>
<th>Abbreviation</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atipla</td>
<td>efavirenz/emtricitabine/tenofovir</td>
<td>1200 mg</td>
</tr>
<tr>
<td>Complera</td>
<td>rilpivirine/emtricitabine/tenofovir</td>
<td>800 mg</td>
</tr>
<tr>
<td>Genova</td>
<td>rilpivirine/emtricitabine/tenofovir/abacavir</td>
<td>560 mg</td>
</tr>
<tr>
<td>Stribild</td>
<td>rilpivirine/emtricitabine/tenofovir/aflamiparilamide</td>
<td>2000 mg</td>
</tr>
<tr>
<td>Triumeq</td>
<td>dolasetravir/emtricitabine/tenofovir DFT</td>
<td>2000 mg</td>
</tr>
</tbody>
</table>

## Non-Nucleosides (NNRTIs)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Abbreviation</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edurant</td>
<td>efavirenz or RPV</td>
<td></td>
</tr>
<tr>
<td>Intenence</td>
<td>etravirine or ETV</td>
<td></td>
</tr>
<tr>
<td>Rescriptor</td>
<td>delavirdine or DLV</td>
<td></td>
</tr>
<tr>
<td>Sustiva</td>
<td>etravirine or EFV</td>
<td></td>
</tr>
<tr>
<td>Viramune</td>
<td>nevirapine or NVP</td>
<td></td>
</tr>
</tbody>
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## Entry Inhibitors

<table>
<thead>
<tr>
<th>Drug</th>
<th>Abbreviation</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuzenon</td>
<td>enfuvirtide or EFV</td>
<td></td>
</tr>
<tr>
<td>Selzenty</td>
<td>maraviroc or MVC</td>
<td></td>
</tr>
</tbody>
</table>

## Protease Inhibitors (PIs)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Abbreviation</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aptivus</td>
<td>tipranavir or TPV</td>
<td></td>
</tr>
<tr>
<td>Crixivan</td>
<td>indinavir or IDV</td>
<td></td>
</tr>
<tr>
<td>Evotaz</td>
<td>atazanavir/cockstistat</td>
<td></td>
</tr>
<tr>
<td>Invirase</td>
<td>saquinavir or SQV</td>
<td></td>
</tr>
<tr>
<td>Kaletra</td>
<td>licopanavir/cobicistat</td>
<td>100 mg</td>
</tr>
<tr>
<td>Lexiva</td>
<td>fosamprenavir or FPV</td>
<td></td>
</tr>
<tr>
<td>Norvir</td>
<td>ritonavir or RTV</td>
<td></td>
</tr>
<tr>
<td>Prezcobix</td>
<td>darunavir/cockstistat</td>
<td></td>
</tr>
<tr>
<td>Prezista</td>
<td>darunavir or DRV</td>
<td></td>
</tr>
<tr>
<td>Reyataz</td>
<td>atazanavir or ATV</td>
<td></td>
</tr>
<tr>
<td>Viracept</td>
<td>nelfinavir or NFV</td>
<td></td>
</tr>
</tbody>
</table>
HIV Care Continuum Shows Where Improvements are Needed

In the US, 1.2 million people are living with HIV. Of those:

- **DIAGNOSED**: 86%
- **ENGAGED IN CARE**: 40%
- **PRESCRIBED ART**: 37%
- **VIRALLY SUPPRESSED**: 30%

Sources: CDC National HIV Surveillance System and Medical Monitoring Project, 2011.

*Antiretroviral therapy*
What are some of the barriers to care that your clients who experience homelessness face?
Team-Based Care Approach

- Recognized patient-centered primary care medical home
- Open access
- Integrated behavioral health

- Coordination with community partners
- Multidisciplinary teams
Meet Joe.

- Joe recently tested positive for HIV
- Joe is diabetic and out of care
- Joe has been homeless for the last 9 months
- Joe has a history of methamphetamine use, none for the last 60 days
- Joe has a history of depression and anxiety
Getting connected to our Clinic

- Meet with eligibility specialist
- Intake screening
- Intake appointments scheduled
Tell me about coming into care at the Clinic...
Intake: Medical Case Manager

- Behavioral health assessment
- Apply for insurance
- Referrals
- Connect with Navigator
What do you like about working with your Medical Case Manager?
Intake: Medical assessment

- Nursing assessment
- Medical history
- Address urgent medical issues
- Medication needs
Intake: New patient labs

- CD4
- Viral Load
- CBC
- Syphilis
- Hepatitis A, B, and C
Connect with Navigator

- Goal plans
- Housing
- Coordination with Medical Case Manager
- Discharge planning
Technology

- MyChart
- Chat
- iPad
- iPhone
What do you like about working with your Navigator?
Working with a Navigator

- 126 clients (~10%)
- Gender:
  - 80% male
  - 16% female
  - 4% transgender
- Race and Ethnicity:
  - 79% White
  - 18% Black
  - 10% Latino
- Age:
  - 79% under 50 years old

- 3 out of 4 on ARV
- 78% on ARV virally suppressed
Medical provider

- HIV Care
- Primary Care
- Medications
- Referrals to Specialty Care
Mental Health

- PMHNP
- Psychologist
- Art therapy
- Crisis intervention
- Outside MH referrals
What is it like working with your medical team?
What makes a good team?
Our Philosophies

- Trauma-informed
- Health literacy
- Harm reduction
- Quality improvement
- Critical time intervention
What is the connection between housing and your health?

How has your medical team helped with housing?
How is Joe doing today?

- Undetectable viral load
- Housed through Cascade AIDS Project grant
- Intermittent methamphetamine use
- Actively looking for employment
How is this model applicable to your work?
Q + A
And a big thanks to the clients who shared their stories with us