Update on DHHS Guidelines for HIV Treatment: Adherence to the Care Continuum

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Adherence to the Care Continuum

• Revised from “Adherence to ART” to include:
  – Adherence to therapy
  – Adherence to entire HIV care continuum

• Stresses the importance of clinicians working collaboratively with a multidisciplinary team
  – Understand barriers to adherence
  – Working with patients to overcome barriers

• Evidence-based interventions and best practices to improve adherence

• Dolutegravir and boosted Darunavir should be considered in persons with proven problems with adherence
Learning Objectives

1) To review the HIV Continuum of Care
2) To discuss challenges with linking patients to care and ways to improve the “Linkage to Care”
3) To discuss challenges with retaining patients to care and ways to improve “Retention to Care”
HIV Continuum of Care

• Definition: the process of HIV testing, linkage to HIV care, initiation of ART, adherence to treatment, retention in care, and virologic suppression

• Outcomes along the continuum vary by geographic region and other population characteristics, such as age, sex, race/ethnicity, and HIV risk factors
The Continuum of Engagement in HIV Care

Cheever, *CID* 2007, 44:1500
HIV Continuum of Care

- CDC tracks the continuum of care to gauge progress towards national goals.
- To achieve optimal clinical outcomes and to realize the potential public health benefit of treatment as prevention, adherence to each step is critical.

https://aidsetc.org/topic/hiv-continuum-care
Why should we care about the care continuum?

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

• 91.5% of the estimated 45,000 new HIV infections in 2009 were attributable to people with HIV who were not in medical care, didn’t know HIV+
• 8.5% of new infections attributed to PLWH in care and receiving antiretroviral (ARV) treatment

Test & Link to care

Continuum of HIV Care for California - 2015

Bar chart showing the percentage of people living with HIV at different stages of care:
- 100% HIV Infected (Estimated N=137,342)
- 94% Diagnosed (N=128,415)
- 67% in HIV Care (N=92,373)
- 50% Retained in HIV Care (N=69,094)
- 57% Achieved Viral Suppression (N=78,134)

Stage of HIV Care:
- PrEP
- Testing
This talk will not be focused on the entire HIV Care Continuum
Question #1: Linkage to Care

Which statement is false about Linkage to Care?

A. Linkage to care only applies to the outpatient setting
B. Linkage to care requires that a person sees a clinic provider who is knowledgeable about HIV infection and can prescribe ART
C. Patients should be linked to care ASAP, but preferably within 60 days
D. Monitoring linkage is a responsibility of the diagnosing provider/entity
Linkage to Care

- Definition: completing an outpatient appointment with a clinical provider who has the skills and ability to treat HIV infection, including prescribing ART
- Ideally, patients should be linked to care ASAP after HIV diagnosis, but preferably within 30 days of diagnosis
- Monitoring linkage is a critical responsibility (of the diagnosing provider/entity and/or public health authority) so that interventions can effectively reach persons who are not linked to care
- Linkage to care efforts must be delivered with sensitivity and persistence

Linkage to Care: Influences and Opportunities

- **Patient factors**
  - Demographics: young age, African American, IDU as risk factors have delayed linkage
  - Disease severity (negative correlation)
  - Socioeconomic resources, opportunity costs, and unmet needs (food, housing, money, transportation)
  - Active substance use, mental health problems, stigma

- **Health system factors**
  - Colocation of testing and treatment services improves linkage
  - Active linkage services (e.g., assisting the patient in setting up appointments, maintaining an active relationship with the patient until linked, and providing linkage case management) versus passive linkage (e.g., only providing names and contact information for treatment centers)
  - Copays, insurance status
  - More rapid access to treatment and ART after seeking care

Antiretroviral Treatment and Access Study (ARTAS)

Only randomized, controlled trial to study linkage to care
Randomized to Standard of Care (passive linkage) or 90 days of strength-based case management
273 participants, 4 cities
78% diagnosed within 6 months
Replicated in ARTAS II

All service linkage workers, patient navigators, and disease intervention specialists (DIS) should be trained in ARTAS

Question #2: Retention in Care

Please type in the chat pod:

What are the top 3 reasons why your patients are not retained in care?
Retention in Care

• Factors impacting retention in HIV care
  – Active substance use
  – Mental health problems
  – Unmet socioeconomic needs
  – Lack of financial resources
  – Lack of health insurance
  – Complex schedules that complicate adherence
  – Recent incarceration
  – Stigma

• Poor retention in HIV care is associated with greater risk of death
Monitoring Retention in Care

• Retention in care should be routinely monitored

• Ways to measure retention:
  – Constancy measures (e.g., at least 2 visits in a year at least 90 days apart) or
  – Visit adherence measures (e.g., number of missed visits) or
  – Both, since both are independently associated with survival
  – Simple clinically applicable measure: how long has it been since you saw this patient (gap)?

• Retention should be monitored, especially for newer patients and patients with detectable VL
Retention in Care: Other Influences and Opportunities

• **Patient factors**
  – Demographics: young age, African American, IDU as risk factors have poorer retention
  – Disease severity (negative correlation)
  – Socioeconomic resources, opportunity costs, and unmet needs (food, housing, money, transportation)
  – Active substance use, mental health problems, stigma, recent incarceration

• **Health system factors**
  – Copays, insurance status
  – Poorer patient-provider relationship and lower trust in provider
  – Flexible appointment schedules, expanded clinic hours, and copay, financial or insurance assistance (e.g., Ryan White program) improve uninterrupted access to care
Only one successful RCT for general US clinical setting: Retention through Enhanced Personal Contact: “REPC”

Enhanced Personal Contact With HIV Patients Improves Retention in Primary Care: A Randomized Trial in 6 US HIV Clinics

Gardner, Clin Infect Dis 2014; 59:725-34

<table>
<thead>
<tr>
<th>Intervention Activities: Enhanced Contact Arm</th>
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<tbody>
<tr>
<td>Eligibility screen</td>
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<td>Survey (for evaluation)</td>
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<tr>
<td>Randomized Session w/ interventionist</td>
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<tr>
<td>Intro: HIV education</td>
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<td>Reminder calls at 7 &amp; 2 days before primary care appt.</td>
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<td>Phone call to patient who missed appt.</td>
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<td>Enrollment at clinic</td>
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<td>2-week Interv. visit</td>
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<td>Interim phone call</td>
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<tr>
<td>Attend primary care visit</td>
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<tr>
<td>Interim phone call</td>
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<tr>
<td>Miss primary care appt</td>
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<tr>
<td>Brief face-to-face w/ interventionist</td>
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Table 2. Retention in Care Outcomes by Intervention Arm, Retention in Care Study, 2010–2012 (N = 1838)

<table>
<thead>
<tr>
<th>Study Arm</th>
<th>Visit Constancy, %a</th>
<th>Risk Ratio (95% CI)</th>
<th>Visit Adherence, %b</th>
<th>Risk Ratio (95% CI)</th>
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<tbody>
<tr>
<td>Enhanced contact only (n = 615)</td>
<td>55.8</td>
<td>1.22 (1.09–1.36)</td>
<td>72.5</td>
<td>1.08 (1.05–1.11)</td>
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<td>Enhanced contact plus skills (n = 610)</td>
<td>55.6</td>
<td>1.22 (1.09–1.36)</td>
<td>70.9</td>
<td>1.06 (1.02–1.09)</td>
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<tr>
<td>Standard of care (n = 613)</td>
<td>45.7</td>
<td>Ref</td>
<td>67.2</td>
<td>Ref</td>
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Abbreviation: CI, confidence interval.

a Defined as percentage of participants with a care visit in each of 3 consecutive 4-month intervals.

b Defined as each patient’s kept visits divided by scheduled appointments (excluding canceled).
## Strategies to Improve Retention in Care

<table>
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<tr>
<th>Strategies</th>
<th>Examples</th>
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<tr>
<td><strong>Provide an accessible, trustworthy, nonjudgmental multidisciplinary health care team.</strong></td>
<td>• Care providers, nurses, social workers, case managers, pharmacists, and medication managers.</td>
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<td><strong>Strengthen early linkage to care and retention in care.</strong></td>
<td>• Encourage health care team participation in linkage to and retention in care. Use ARTAS training (if available).</td>
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<td><strong>Evaluate patient's knowledge about HIV infection, prevention, and treatment and, based on this assessment, provide HIV-related information.</strong></td>
<td>• Keeping the patient's current knowledge base in mind, provide information about HIV, including the natural history of the disease, HIV viral load and CD4 count and expected clinical outcomes according to these parameters, therapeutic and prevention consequences of poor adherence, and importance of staying in HIV care.</td>
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<td><strong>Identify facilitators, potential barriers to adherence, and necessary medication management skills both before starting ART and on an ongoing basis.</strong></td>
<td>• Assess patient's cognitive competence and impairment.</td>
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<td>• Assess behavioral and psychosocial challenges, including depression, mental illness, levels of social support, levels of alcohol consumption and current substance use, non-disclosure of HIV serostatus, and stigma.</td>
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<td>• Identify and address language and literacy barriers.</td>
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<td>• Assess beliefs, perceptions, and expectations about taking ART (e.g., impact on health, side effects, disclosure issues, consequences of poor adherence).</td>
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<td>• Ask about medication-taking skills and foreseeable challenges with adherence (e.g., past difficulty keeping appointments, adverse effects from previous medications, issues managing other chronic medications, need for medication reminders and organizers).</td>
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<td>• Assess structural issues, including unstable housing, lack of income, unpredictable daily schedule, lack of prescription drug coverage, lack of continuous access to medications, transportation problems.</td>
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<td><strong>Provide needed resources.</strong></td>
<td>• Provide or refer for mental health and/or substance abuse treatment.</td>
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<td>• Provide resources to obtain prescription drug coverage (e.g., Common Patient Assistance Program Application (CPAPA): <a href="http://bit.ly/CPAPForm">http://bit.ly/CPAPForm</a>; Pharmaceutical Company HIV Patient Assistance Programs and Cost-Sharing Assistance Programs: <a href="http://bit.ly/1XlyhVN">http://bit.ly/1XlyhVN</a>)</td>
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<tr>
<td></td>
<td>• Provide resources about stable housing, social support, transportation assistance, and income and food security.</td>
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<td><strong>Involve the patient in ARV regimen selection.</strong></td>
<td>• Review potential side effects, dosing frequency, pill burden, storage requirements, food requirements, and consequences of poor adherence.</td>
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<td>• Assess daily activities and tailor regimen to predictable and routine daily events.</td>
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<td>• Consider preferential use of PI- or DTG-based ART if poor adherence is anticipated.</td>
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<td>• Consider use of STR formulations.</td>
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<td>• Assess if cost/copayment for drugs will affect adherence and access to medications.</td>
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<td><strong>Assess adherence at every clinic visit.</strong></td>
<td>• Monitor viral load as a strong biologic measure of adherence.</td>
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<td>• Use a simple behavioral rating scale or self-reported assessment.</td>
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<td>• Employ a structured format that normalizes or assumes less-than-perfect adherence and minimizes socially desirable or “white-coat adherence” responses.</td>
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<td>• Ensure that other members of the health care team also assess and support adherence.</td>
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<td><strong>Use positive reinforcement to foster adherence success.</strong></td>
<td>• Inform patients of low or undetectable levels of HIV viral load and increases in CD4 cell counts.</td>
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<td>• Thank patients for attending their appointments.</td>
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Conclusions

• Improving the Continuum of Care is critical to improving patient care outcomes
  – Biggest impact can be seen in improving the biggest gaps, which occur early in the continuum of care (linkage to care and retention in care)

• Lessons learned include
  – Regularly assess adherence to ART and appointments
  – Engage a patient who is struggling with adherence at any step on the care continuum with a constructive, collaborative, nonjudgmental, and problem-solving approach
  – Elicit an individual’s barrier to adherence
  – Tailor approaches to improve adherence to an individual’s needs and barriers
  – Multidisciplinary approaches may be needed to improve linkage and retention
Other References

- Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV. Available at https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf