



A Multidisciplinary Team Approach To Improving Adherence Among HIV Infected Adults



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Abstract

BACKGROUND:

The adherence improvement project launched in 2001 aims to: 1) maximize the number of patients on treatment for whom Antiretroviral Therapy (ART) is indicated, 2) improve patient's retention in care and adherence to ART, and 3) reduce the viral loads (VL) of patients needing ART to undetectable levels.

OBJECTIVES:

- Patients will be offered adherence support to facilitate their readiness to start ART.
- All patients will have HIV viral loads checked every 4 months.
- Patients on ART will be periodically assessed for adherence at least every 4 months.
- Patients on ART > 4 months will achieve and maintain an undetectable viral load.

METHODS:

All patients are assessed for readiness to adhere to ART before starting ART in order to inform the choice of regimen and the development of tailored plans to address potential challenges to adherence. On-going periodic assessment of adherence may lead to further tailoring of the plan. Individual plans address needs related to HIV education, social isolation, addictions, mental health, and other challenges including homelessness, insufficient economic resources, and the legal status of immigrants. Adherence tools have been developed as cues for clinicians to use for assessing readiness and adherence. Pre-clinic meetings, case conferences, and review of an "adherence list" facilitate a multidisciplinary, integrated approach to adherence.

RESULTS (8/1/07-11/30/07):

- 87% of all patients had a viral load checked in previous 4 months.
- 89% of patients who need ART are on ART.
- 88% of patients on ART had an undetectable viral load in the previous 4 months.
- 95% of patients on ART for at least 4 months had an undetectable HIV viral load in the previous 4 months.

CONCLUSIONS:

A multidisciplinary, multicultural approach to assessment of readiness, ongoing assessment of adherence, and individualized adherence plans can improve adherence. Adherence tools serve to cue clinicians and facilitate discussion with patients. Recent improvements in outcomes may be attributed to expanded and improved treatment options as well as other factors including: better use of EPIC tools, more timely feedback to providers, assessment of patient readiness by >1 clinician from >1 discipline, more systematic phone follow-up by RNs when patients start a new regimen, and collaborations with other community-based programs.

Background

The Zinberg Clinic is a multicultural, multidisciplinary clinic providing primary and HIV care to approximately 248 adults with HIV. Antiretroviral therapy (ART) has dramatically improved the morbidity and mortality of people with HIV. However, long term success with ART is largely dependent on an extremely high level of adherence. Furthermore, when viral replication is only partially suppressed, drug resistance and cross-resistance will likely develop and limit future treatment options.

An adherence improvement project was launched in 2001 aimed at helping patients remain engaged in care, improving medication adherence, and reducing viral loads to undetectable levels. A multi-disciplinary team consists of nurses, social workers, case managers, NPs, MDs, a medical assistant, psychiatrist, nutritionist, and an acupuncturist.

A broad understanding of the factors associated with adherence is important in developing interventions. A review of the literature helps identify patient, provider, and regimen related factors as well as larger contextual factors that affect adherence. Adherence interventions may include, for example, addressing mental health issues, substance abuse or inadequate access to food as well as outreach to keep patients in care, building social support, or exploring a patient's health beliefs which may be at odds with a medical model.

Methods

All patients needing ART are offered a variety of adherence interventions that include:

- Assessing readiness to adhere
- Developing an individual plan tailored to address potential challenges to adherence
- Educating patients about HIV, treatment, and how good adherence limits resistance
- Offering strategies and tools for becoming an adherent patient
- On-going, periodic assessment and re-assessment of adherence

In addition, a more intensive and individually tailored adherence plan is offered to all patients who are either:

- Without a viral load check in the past 4 months
- On ART for > 4 months with an undetectable viral load
- Starting or changing their ART regimen
- Not ready to start due to challenges (e.g., substance abuse, depression, or belief system)

A multidisciplinary integrated approach to adherence involves:

- Review of an updated adherence list to identify patients needing follow up
- Pre-clinic meetings to flag patients needing adherence interventions
- Case conferences at weekly staff meetings to tailor individualized adherence plans
- Adherence Committee meetings to assess & enhance the Adherence Improvement Project through system and program changes.

Other components of the Adherence Improvement Project include:

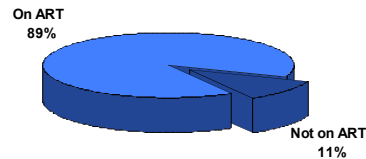
- Side Effect Management
- Access to health insurance and HIV drug assistance program
- Behavioral interventions
- Mental Health Care
- Substance abuse treatment
- Supporting patients with financial, legal, and housing issues
- Providing social support
- Pre-filing medication licenses
- Development of tools to cue clinicians for assessing readiness, assessing on-going adherence, and for patient education topics to discuss before starting ART

Recent improvements in outcomes may be attributed to a variety of factors:

- Patient treatment options are expanding, giving those who have multi-drug resistance new options for treatment
- Since starting electronic charting with EPIC in 2006, expanded use of EPIC tools has increased staff capacity to monitor and support patients' adherence
- Use of EPIC patient lists to update the adherence status given providers more timely feedback on patients needing additional interventions
- EPIC has facilitated more systematic outreach by phone or letter to those who miss appointments or are due for routine visits
- Nurses have provided more systematic phone follow up to assess adherence when patients are newly starting or changing ART
- Assessments of patient readiness when conducted by clinicians from both Behavioral Health and Medicine have generated a fuller picture of potential strengths and challenges for adherence and has likely enhanced the development of tailored interventions
- Several patients whose adherence to ART was poor due to multiple challenges have benefited from a new collaboration with PACT, a community-based program, providing home visits and directly observed therapy (DOT) using peers as health educators

Results

Percentage of Zinberg Patients on ART for Whom ART is Indicated (N=212)*

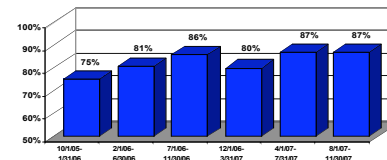


*Data from Zinberg Clinic, 2007

** Of the 11% not on ART, almost half were actively preparing to start (11 patients), and half (12 patients) were not ready to start, for reasons such as substance use, alcohol use, side effects, incarceration, homelessness and difficulty with swallowing pills.

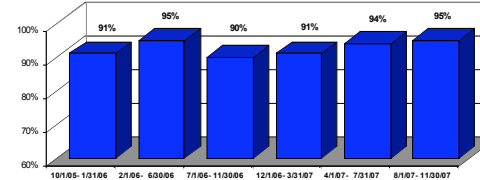
Results

Percentage of HIV Patients with Viral Load Checked in Last 4 Months*



*Data from Zinberg Clinic, 2005-2007

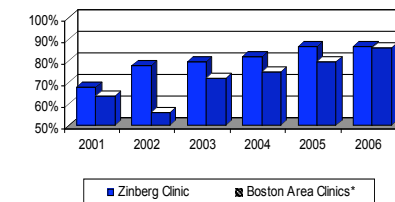
Percentage of HIV Patients on ART with Undetectable Viral Load Last 4 Months*



*Data from Zinberg Clinic, 2005-2007

**This data set includes only HIV Patients who have been on ART for >4 months.

HIV Patients on ART with Undetectable Viral Load at Last Visit for Boston Area Clinics and Zinberg Clinic*



*Data from HIV/AIDS CLINICAL CARE QUALITY ASSURANCE PROJECT: Trends in Clinical Performance & Clinical Outcomes at All Reviewed Boston Public Health Commission Funded Ryan White Part A Clinics. JSI Research and Training Institute, Inc. For the Boston Public Health Commission, May 2008

Conclusions

- ✓ The percentage of patients on ART with undetectable viral loads is very high and is similar to what is more commonly seen in a research rather than clinical setting.
- ✓ An evidence-based and broad view of the factors associated with adherence is important in developing interventions aimed at improving adherence.
- ✓ A multidisciplinary approach to supporting adherence which includes assessment of readiness, individualized adherence plans, and on-going assessment of adherence improves adherence.
- ✓ Using patient lists, cues, such as assessment tools, and check-lists helps clinicians adhere to the need for on-going assessment of and attention to adherence related issues.
- ✓ Recent improvements in outcomes may be attributed to a combination of factors including: better use of EPIC tools, assessment of patient readiness by clinicians from both Behavioral Health and Medicine, more systematic phone follow-up by RNs when patients start a new regimen, collaborations with other community-based programs and expanded potent treatment options.

Acknowledgments

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We extend our heartfelt thanks to the patients of Zinberg Clinic who teach us about the challenges of living with HIV, share their creative solutions, and inspire us with their perspectives on living.



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