Factors Associated with Loss to Follow-up among HIV-Infected Patients at an Urban, Hospital-Based Outpatient HIV Clinic

Timothy J. Friel MD
Lehigh Valley Health Network, Timothy.Friel@lvhn.org

Anthony Nerino
Lehigh Valley Health Network

Lynn Nagel
Lehigh Valley Health Network, Lynn.Nagel@lvhn.org

J D'Aversa
Lehigh Valley Health Network

Anthony Strobel
Lehigh Valley Health Network, Anthony.Strobel@lvhn.org

See next page for additional authors

Follow this and additional works at: http://scholarlyworks.lvhn.org/medicine

Part of the Community Health and Preventive Medicine Commons, Immune System Diseases Commons, Infectious Disease Commons, Medical Sciences Commons, and the Statistics and Probability Commons

Published In/Presented At

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.
BACKGROUND: Loss to follow-up (LTF) from HIV care has been linked to multiple negative health outcomes, including virologic failure, disease progression and reduced survival. We sought to elaborate the primary epidemiologic factors associated with LTF among patients newly enrolled in an urban, hospital-based outpatient HIV program.

METHODS: We completed a retrospective medical record review of all new patients presenting for care between 2005 and 2008. LTF was defined as an interruption between medical visits of more than 90 days. Alpha was set at <0.05 with a 95% CI. Bivariate analyses were performed using SPSS 15.0 (IBM, Inc., Chicago, IL).

RESULTS: Among the 321 patients included in the analysis, three groups were identified: patients later returned to care (ILTF; 30%), patients intermittently lost to follow-up (PLTF; 33%), and patients permanently lost to follow-up (PLTF; 33%). Demographic variables associated with PLTF included younger age (p=0.003) and residence in a medical, corrections or rehabilitation facility (p=0.012). Other significant risk factors included prior incarceration (p=0.012), reported use of alcohol and/or recreational drugs (p=0.015), and history of anxiety or depression on routine screening at program intake (p=0.016 and 0.003, respectively). A transmission risk factor of injection drug use (IDU) was associated with PLTF (p=0.03), while a CD4 count less than 100 at program entry correlated with increased retention (p=0.005). Bivariate analyses demonstrated reduced engagement occurring more commonly among young African Americans (p=0.026), White, non-Hispanic IDU (p<0.001) and women with histories of arrest (p=0.036) and incarceration (p=0.036). Conditional bivariate analyses demonstrated reduced engagement occurring more commonly among young Black/African Americans (p=0.026), White, non-Hispanic IDU (p<0.001) and women with histories of arrest (p=0.036) and incarceration (p=0.036).

CONCLUSION: LTF is an all-too-common phenomenon in HIV care with potentially significant consequences for patients. Multiple clinical, demographic and psychosocial factors are associated with suboptimal retention in care. Special strategies to enhance the engagement of patients at highest risk for LTF are warranted.

Background

- Many HIV-infected Americans have failed to reap the benefits of current HIV therapies because of suboptimal rates of diagnosis, linkage, engagement and retention.

- Non-adherence with medical visits has been associated with multiple undesirable outcomes:
  - lower CD4 counts and higher viral loads
  - delays in virologic suppression and increased HIV viral load burden
  - virologic failure
  - the development of AIDS-defining illnesses
  - reduced survival

- Previous studies have coupled several clinical, demographic and psychosocial factors with the phenomenon of patient loss to follow-up (LTF).

- We aimed to establish the incidence of LTF and identify the correlates of LTF among patients newly enrolled in care at the AIDS Activities Office (AAO) of Lehigh Valley Health Network, an urban, multidisciplinary primary care practice for almost 800 HIV-infected patients in Allentown, PA.

Methods

- Completed retrospective chart review of medical and case management records of all new patients enrolling into care between January 2005 and June 2008 (n=321)
- Calculated number of days between consecutive medical visits from 2005 to 2010

**Loss to Follow-up (LTF)**

- Defined as any unplanned interruption between medical visits of greater than 90 days

- Potential correlates of LTF examined through bivariate and conditioned bivariate analyses using SPSS 15.0 (IBM, Inc., Chicago, IL).

- Alpha set at <0.05 with a 95% CI.

- Study approved by Institutional Review Board of Lehigh Valley Health Network.

Results

- More than 60% (201/321) of newly enrolled patients had at least one episode of LTF during the six years of observation. (Table I)

- Patients with a single medical visit accounted for 43% of the PLTF group.

- Several factors increased the risk of interrupted patient engagement (p<0.05). (Table II)

  - Demographic: Age < 43 years
  - Psychosocial: Reported use of alcohol, recreational drugs and nicotine
  - History of incarceration
  - Temporary residence in a medical, corrections or rehabilitation facility (almost 80% with some visit gap and 50% with PLTF)
  - Screening indicating significant anxiety or depression at program intake (enrollment in psychiatric services was predictive)

- Clinical: HIV transmission via injection drug use

- Low baseline CD4 count (<100 cells/mL) was associated with PLTF, 46% (210/455)

- Surprisingly, patients with lower incomes were less likely to have visit interruptions.

Conclusions

- Loss to follow-up is an all-too-common phenomenon among patients newly enrolled in care, with more than half of these individuals exhibiting unexplained absences greater than 180 days during six years of observation.

- Since LTF has been associated with multiple detrimental health outcomes, special strategies to enhance the engagement of HIV patients at highest risk for LTF are warranted.

- Prospective studies assessing the impact of programmatic interventions to improve patient retention rates are desperately warranted.

References:


Factors Associated with Loss to Follow-up among HIV-Infected Patients at an Urban, Hospital-Based Outpatient HIV Clinic

Timothy Friel1, A. Nerino1, L. Nagel1, J. D’Aversa1, A. Strobel1, J. Sabino1, D. Faulkner2

(1) AIDS Activities Office of Lehigh Valley Health Network, Allentown, PA. (2) Department of Community Health and Health Studies, Lehigh Valley Health Network, Allentown, Pennsylvania