

Linking Newly Diagnosed HIV Positive Individuals to Specialized Care from an Emergency Department Setting

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Background

- In September 2006, the CDC revised prior recommendations, advocating all persons ages 13 to 64 should be tested voluntarily for HIV.
- The CDC now recommends HIV testing should become a routine part of medical care and be offered in non-traditional HIV counseling and testing (C&T) sites, such as urgent care and emergency rooms.
- Linkage to care for HIV-positive individuals has proven difficult and of those patients diagnosed with HIV, 17% to 34% do not receive routine medical care.
- Identifying positive patients is imperative to combating the HIV epidemic because knowledge of one's positive serostatus often leads to a reduction in risky behavior.
- Persons aware of their HIV positive status are 68% less likely to engage in unprotected intercourse with uninfected partners
- The transmission rate is approximately 3.5 times higher for individuals unaware of their serostatus as compared to individuals who know they are positive. This difference in transmission rates is not only attributed to a change in behavior but also the benefits of positive patients being placed in medical care.
- Early detection and immediate linkage to clinical care can significantly improve the patients quality of life and provide them with constant risk-reduction messages.
- The success of antiretroviral therapy allows patients to live longer, healthier lives if the therapy is started before advanced immune dysfunction occurs.
- Both the benefits and difficulties of linking HIV positive individuals to medical care underscore the need to develop a more streamlined system of immediately enrolling patients in treatment programs
- Project B.R.I.E.F. uses a multimedia based HIV C&T model that enables high volume testing, provides consistent education and prevention video-counseling messages, eases the process of data acquisition and facilitates seamless linkage to care for patients who test positive.

Objective

This study evaluated a novel approach to C&T in a high-volume inner-city ED in terms of number of patients who could be tested, test positive, and were linked to care.

Methods

We retrospectively reviewed the medical records of patients who tested HIV positive via Program BRIEF. We analyzed patient records for follow-up visits, treatment, and patient response to treatment.

Results

- Over 27 months, 6299 patients tested for HIV using a rapid oral antibody test and 57 HIV positive individuals were identified.
- 47 individuals were naïve to HIV treatment and 10 were treatment experienced.
- 23 (49%) naïve patients and 4 (40%) experienced patients were diagnosed with AIDS within 12 months of the HIV test.
- For naïve patients, mean initial CD4 levels and Viral Loads (VL) were 260 cells/mm³ (n = 42) and 202,313 copies/mL (n=37) respectively.
- For experienced patients (n=9) CD4 = 296 and VL = 104,128c/mL.
- Of experienced patients, 10 (100%) were linked to care, with 9 attending ACS.
 - Median linkage time was 17 days (range 1-730).
 - Of patients attending ACS, 5 are on HAART and 4 do not require HAART.
 - Among patients on HAART, 3 have VL<400.
- Of naïve patients, 39 (83%) were linked to care, with 35 attending our hospital HIV clinic (ACS).
 - Median linkage time was 14 days (range 0-162 days).
 - Among patients attending ACS, 22 are on HAART and 6 do not require HAART by DHHS guidelines (CD4>350 and VL<100,000c/mL).
 - Among patients on HAART, 12 have VL<400.

Characteristics of the Cohort (n = 57)

	Male (N = 39)	Female (N = 18)	Total (N=57)
<i>Average Age</i>	39 (range: 23–58)	35 (range: 13-56)	37.7 (range: 13-58)
<i># NBHN Visits prior to Dx</i>	5.41	18.06	8.92
<i># NBHN Visits 1 year prior to Dx</i>	1.95	2.56	2.14
<i>Initial CD4 Count (cells/mm³)</i>	216	276	238
<i>Initial Viral Load (copies/mL)</i>	141,949	160,373	147,767

Linkage to Care and Treatment Outcomes

<i># of patients who tested HIV (+)</i>	57
<i># of patients linked to care (% of total positive patients)</i>	49 (84.21%)
<i># of patients eligible for HAART @ NBHN clinic</i>	34
<i># of patients placed on HAART (% of eligible patients)</i>	27 (79.41%)
<i>Mean # of days from diagnosis to 1st medical clinic visit</i>	20.54 days (N = 44)
<i>Mean # of days from diagnosis to placement on HAART</i>	31.22 days (N = 27)
HAART Treatment outcome:	
<i># patients with viral load < 400 copies/mL</i>	15
<i># patients with viral load < 50 copies/mL</i>	8
<i># of patients who developed AIDS < 12 months after diagnosis (% of total positive patients)</i>	27 (47.37%)

Conclusions

The Program BRIEF model successfully links a large proportion of HIV positive individuals to specialized care. This model leads to positive outcomes regarding patient health, and benefits communities by reducing the potential for further HIV transmission.