

Maintaining engagement in care and HIV viral suppression in patients with mental health and substance abuse co-morbidities: outcome of an audit

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Introduction

- Lifelong engagement with care and sustained HIV viral load suppression are key to the personal and population benefits of antiretroviral therapy (ART)¹
- Poor retention in care increases the likelihood of higher HIV viral loads and decreased CD4 cell count predicting poorer survival with HIV infection²
- HIV engagement and management can be complicated by poor mental health (MH), alcohol and other drug (AOD) abuse
- Using a case management model and an enhanced care program (ECP)^{3,4,5} St. Vincent's Hospital HIV, Immunology & Infectious Diseases Unit seeks to promote engagement in care and adherence to ART for our most vulnerable patients
- This program has never been formally evaluated.
- Participants attend without appointment Monday – Friday, daily, weekly, fortnightly, monthly or PRN for assessment, support and ART via directly observed therapy or via loaded dosette boxes

Aim

- To formally describe and objectively audit our nurse led ECP

Method

- We identified the variables of interest
 1. Patient characteristics
 2. Receipt of ART (engagement and medication adherence)
 3. Outcome (HIV viral suppression)
- We conducted a comprehensive retrospective review of medical records and electronic databases of 26 patients enrolled in the ECP between 1st July 2014 – 31st June 2015
- One investigator extracted relevant data and entered it onto a specifically designed Excel database
- A second investigator cross checked the source data and data entry for accuracy
- Data was analysed using simple descriptive statistics

Results

Table 1. Patient Characteristics (n=26)

Gender (n/%)		Age (mean/SD)	Years living with HIV (mean/SD)	Years on the ECP (mean/SD)	Level of support (n/%)	
Male	23 (88%)	45 (9) years	14 (7) years	5 (4) years	Daily	6 (23%)
Female	2 (8%)				Weekly	11 (42%)
TG	1 (4%)				Fortnightly	4 (15%)
					Monthly	5 (19%)

Table 2. Co-morbidities (n=26)

Co-morbidities (mean/SD)	Mental health diagnosis^ (n/%)	AOD abuse (n/%)	Hepatitis C ^^ (n/%)
3 (2)	15 (60%)	Total 19 (73%)	10 (40%)
		CMA 15 (60%)	
		IDU 16 (61%)	

^Major depression, bipolar disorder or schizophrenia

^^ PCR positive

Table 3. Results (n=26)

Engaged in care (n/%)	On ART (n/%)	Undetectable viral load at last review (n/%)	Sustained undetectable viral load^ (n/%)	CD4 T cell count (10 ⁶ /L) at last review (n/%)	
26 (100%)	26 (100%)	19 (73%)	12 (46%)	< 100	1 (4%)
				101-250	6 (23%)
				251-350	3 (11%)
				>350	16 (61%)

^ 12 months

Conclusions

- A program of enhanced nursing care for HIV positive men and women with significant MH and AOD co-morbidities facilitates engagement in care but not universal or sustained viral suppression
- Further research is required into the disconnect between perfect engagement and sustained HIV viral suppression in this population

Disclosure of interest statement

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References

1. Gunthard HF, Saag MS, Benson CA et al. Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults2016 Recommendations of the International Antiviral Society–USA Panel. JAMA. 2016;316:191-210.
2. Mugavero M, Lin H, Willig J, Westfall A, Ulett K, Routman J, Abrams S, Raper J, Saag M, Allison J. Missed visits and mortality among patients establishing initial outpatient HIV treatment. Clin Infect Dis. 2009 ; 48:248-56
3. Ko N, Liu H, Lai Y, Pai Y, Ko W. Case management interventions for HIV-infected individuals Curr HIV/AIDS Rep. 2013; 4:390-7
4. Higa D, Marks G, Crepaz N, Liau A, Lyles C. Interventions to improve retention in HIV primary care: a systematic review of U.S. studies. Curr HIV/AIDS Rep. 2012;4:313-25
5. Reveles K, Juday T, Labreche M, Mortensen E, Koeller J, Seekins D, Oramasionwu C, Bollinger M, Copeland L, Jones X, Frei C. Comparative value of four measures of retention in expert care in predicting clinical outcomes and health care utilization in HIV patients. PLoS One. 2015 ;10:e0120953