

# Retention in HIV Care in an Era of Highly Active Anti-retroviral Therapy for all HIV-1 infected Individuals



Sarah O'Connell<sup>(1)</sup>, Anna O'Rourke<sup>(1)</sup>, Eileen McSweeney<sup>(1)</sup>, Almida Lynam<sup>(1)</sup>, Corinna Sadlier<sup>(1)</sup>, Colm Bergin<sup>(1)</sup>  
 Department of Genito-Urinary Medicine and Infectious Diseases, St James's Hospital, Dublin 8, Ireland



## Introduction

- Recent studies demonstrate a clinical benefit of ART at CD4 counts of >500 cells/uL<sup>(1)</sup>.
- Retention in HIV care is essential to meet the targets outlined in the UNAIDS 90-90-90 plan.
- Our primary aim was to describe prevalence and characteristics of patients disengaged from care at an urban ambulatory HIV clinic.
- Secondary aims were to determine factors associated with non-engagement in care and to describe an intervention to re-link those disengaged patients back to care.

## Methods

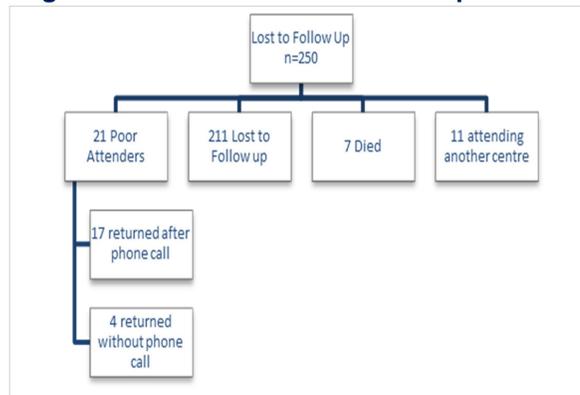
- We conducted a nested case-control study.
- All patients who disengaged from care (defined as loss to follow up for at least one year) from 2007 to 2014 inclusive were identified.
- Disengagement from care was defined as failure to attend clinic for greater than 1 year.
- Patient records were reviewed to collect demographics.
- Cases were matched for most recent year of attendance and HIV-1 positive status to controls in a 1:4 ratio.
- Patients identified as disengaging from care were contacted by telephone by healthcare providers. Where contact was made, patients were counselled regarding importance of re-engaging in care and appointments were made.

## Results

### Description of Disengaged Cohort

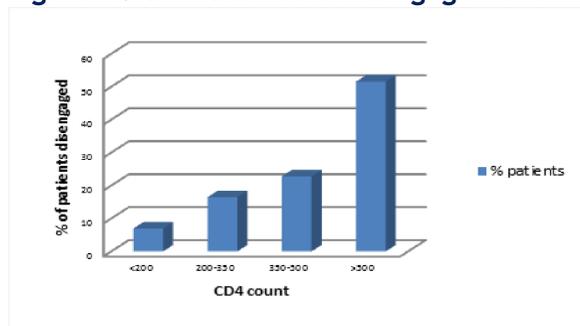
- 250/2289 (10.9%) of patients attending our HIV clinic disengaged from care from 2007 - 2014. See figure 1.

Figure 1: Patients Lost to Follow Up



- Of these, 153 (61.2%) were male. 126 (50.4%) were heterosexual, 81 (32.4%) were MSM and 40 (16%) were IDU.
- 87 (34.8%) were Irish and 90 (36%) were from Sub-Saharan Africa.
- 140 (56%) patients were taking ART at the time of disengaging from care; 59 (42%) of these patients had a suppressed HIV-1 viral load at the time of disengagement.

Figure 2: CD4 Count at Disengagement



## Results

### Nested Case-Control Study

#### Univariate Analysis

- Those with heterosexual risk were more likely to disengage from care.
- Those who disengaged were younger with a mean age of 39.
- Non-Irish were more likely to disengage from care.
- Those who disengaged from care were more likely to not have been receiving ART and did not have a suppressed HIV-1 viral load.

Table 1: Univariate Analysis

	Retained in Care N=1000	Disengaged from Care N=250	p value
Age	Mean Age: 43.38	Mean Age: 39.88	<0.001 CI: 2.24 – 4.95
<b>Geographic Origin</b>			
Ireland	554 (55)	87 (35)	<0.001
SSA	243 (24)	90 (36)	
South America	34 (3)	21 (8)	
SE Asia	23 (2)	6 (2)	
Other	146 (15)	46 (18)	
<b>Gender</b>			
Male	689 (69)	153 (61)	0.056
Female	310 (31)	97 (39)	
<b>Risk</b>			
HS	337 (34)	126 (50)	<0.001
MSM	390 (39)	81 (32)	0.058
IDU	251 (25)	40 (16)	<0.001
Other	22 (2)	2 (0.80)	
<b>CD4</b>			
<50	17 (2)	4 (2)	0.181
50-200	74 (7)	14 (6)	
200-350	167 (17)	41 (16)	
350-500	260 (26)	58 (23)	
>500	482 (48)	130 (52)	
<b>Viral Load</b>			
Suppressed	710 (71)	78 (31)	<0.001
Not suppressed	224 (22)	164 (66)	
Just started (6 months)	42	0	
New diagnosis	16	0	
<b>ART</b>			
On ART	810 (81)	140 (56)	<0.001
Not on ART	187 (19)	110 (44)	

Table 1 Legend: SSA: Sub-Saharan Africa, SE Asia: South East Asia, HS: Heterosexual, IDU: Intravenous drug use, MSM: Men who have sex with men, ART: Anti-retroviral therapy.

#### Multivariate Analysis

- Patients from Ireland were less likely to disengage from HIV care (OR: 0.567, CI: 0.397 – 0.811).
- Those with a suppressed HIV-1 viral load were also less likely to disengage from HIV care (OR: 0.191, CI: 0.128-0.284).

## Results

### Re-Engagement Intervention Cascade

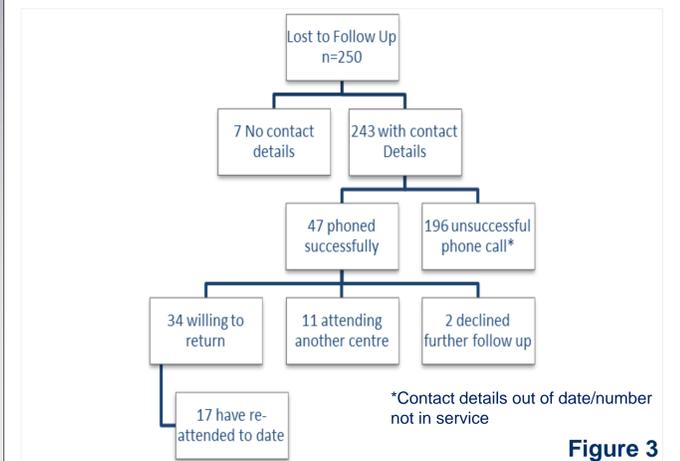


Figure 3

## Discussion

- From 2007 to 2014, 89% of those who attended our HIV clinic have retained in care.
- We have identified patients factors associated with non-engagement in HIV care in our cohort.
- An intervention to re-engage has proved successful for 72% of those with whom contact was made and 39% have re-attended to date. It is possible that many other patients are attending elsewhere.
- A semi-structured patient interview will soon take place to gain a better understanding of patient factors associated with failure to retain in care.

## References

1. The INSIGHT START Study Group, Initiation of Antiretroviral Therapy in Early Asymptomatic HIV Infection, *N Engl J Med*; July 2015.