

COMPREHENSIVE CARE CLINIC VISITS ARE ASSOCIATED WITH BETTER CONTROL OF HIV

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BACKGROUND

- Control of viral replication through combination antiretroviral therapy improves HIV-infected patient outcomes.
- Yet many HIV-infected patients have significant co-morbidities that pose significant social and clinical challenges to achieving viral suppression.
- Integrating subspecialty services such as mental health and substance use into comprehensive HIV primary care clinics are hypothesized to address such challenges, but little is known about the impact of comprehensive care on treatment outcomes.

FOUR LEVELS OF COMPREHENSIVE CARE

Components of HIV clinics	Comprehensiveness Level			
	4	3	2	1
Physician assistant	x	x	x	x
Clinical coordinator	x	x	x	x
HIV MD specialist	x	x	x	
Dedicated pharmacist	x	x	x	
Psychiatrist	x	x		
Social worker	x	x		
Psychologist	x			
Research coordinator	x			

METHODS

Study population

Retrospective cohort of HIV-positive patients receiving care at 5 VA HIV clinics in Southern CA and Nevada from Oct 2000 to April 2006

Eligibility criteria

Receipt of HAART, baseline viral load \geq 5,000, 2+ visits to HIV clinics

Outcome variables

- Time from HAART to 1st viral suppression (viral load \leq 400)
- Time from relapse (viral load \geq 5000) to 2nd viral suppression viral load \leq 400)

Covariates

- Utilization score
- Frequency of HAART refills
- Demographics (age, race, marital status,...)
- Disease severity (baseline viral load, CD4+)
- Risk factors (hepC, drug use, STD,...)

Statistical method

Survival analysis

DATA SOURCES

Quantitative

VA regional data warehouse: demographics, visit information, lab tests, diagnoses, pharmacy prescriptions and refills

Qualitative

Interviews with Chiefs of VA HIV clinics to obtain descriptions of integrated services at their clinics

PREDICTORS OF 1ST VIRAL SUPPRESSION

Predictors	Hazard ratio (p-value)
Utilization score	1.04 (.04)
Frequency of HAART refills	1.71 (.001)
Receipt of HAART after yr. 2000	1.67 (<.001)
Baseline viral load	0.92 (.003)

PREDICTORS OF 2ND VIRAL SUPPRESSION

Predictors	Hazard ratio (p-value)
Utilization score	1.06 (.001)
Frequency of HAART refills	1.20 (.001)
Receipt of HAART after yr. 2000	1.80 (<.001)

PATIENT CHARACTERISTICS

Characteristics	Statistics
Eligible patients, N	759
Age, mean (SD)	51 (9.4)
White, Black, missing (%)	34, 24, 31
Had co-morbidities (%)	93
CD4+, mean (SD)	333 (257)
Viral load, log mean (SD)	4.2 (0.9)
Frequency of HAART refills (%)	80
No. visits to HIV clinics per year	5

CONCLUSIONS

- Patients who utilized comprehensive care clinics more regularly were somewhat more likely to achieve viral load \leq 400, independent of socio-demographic and clinical characteristics.
- This finding suggests that channeling HIV-infected patients to comprehensive HIV care clinics may improve clinical outcomes.
- Future research should investigate which elements of comprehensive care clinics are most associated with viral load control and what role specific provider and patient characteristics play in this association.

