

Long-Term Medication Adherence in HIV+ Individuals

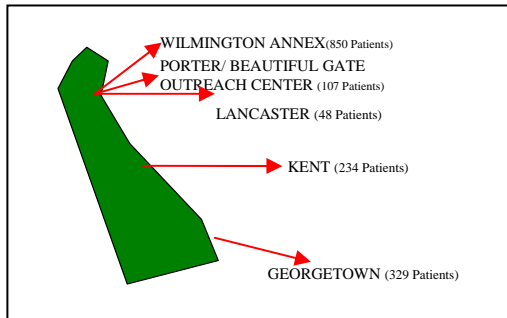
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HIV Community Program-Background

- Established in 1990
 - Funded through Ryan White Part(s) B, C, D, E and Christiana Care Health System
- Census ~ 1600 Patients
 - Approximately 70% of the HIV-infected patient population accessing care in Delaware
 - 84% of patients receiving HAART



Background

- HIV treatment goals are to reduce morbidity, prolong survival, improve quality of life, preserve or improve immune function, sustain viral suppression
- Studies show need for adherence $\geq 95\%$ with antiretroviral medications
- Barriers to adherence include: drug use, homelessness, side effects, poor insight into care
- Limited data available about adherence interventions for patients on long-term treatment of HIV
 - Literature search revealed most data related to first couple of months following treatment initiation or medication change

Objective

- Proactively address antiretroviral medication adherence problems before they result in adverse clinical outcomes

Methods

- Patients identified during review of viral loads and prospectively referred beginning 10/1/2008 to present
- Eligible patients were on antiretroviral therapy for ≥ 6 months and had 2 consecutive detectable viral loads (>48 copies/mL)
- Patients referred to Pharm.D. for assessment of antiretroviral medication adherence assessment and patient-centered interventions
 - Adherence assessed via a standardized questionnaire and pharmacy refill records

Interventions

- Filling medication boxes for patients
- Individualized patient education
- Medication changes
- Management of adverse effects
- Identification and management of drug-drug or herb-drug interactions

Demographics (n=62)

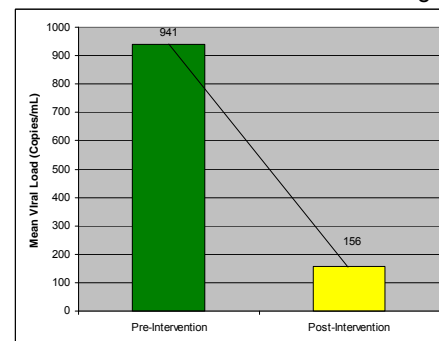
Gender	
Male (%)	50 (81)
Female (%)	12 (19)
Risk Factor	
IV Drug Use (%)	22 (35)
MSM (%)	18 (29)
Heterosexual (%)	20 (32)
Multiple (%)	1 (2)
Perinatal (%)	1 (2)
Age (years)	
Mean	45.8
Baseline CD4 Count (cells/mm ³)	
Mean	469.4
Time on Current Regimen (years)	
Mean	4.2
Number of Interventions	
Mean (Range)	1.5 (1-4)

Results

- 61% of patients were found to have a probable reason for the increased viral load

Missing Doses (%)	24 (39)
Timing of Medication (%)	6 (10)
Timing and Missing Doses (%)	5 (8)
Unknown (%)	24 (39)
Drug-drug Interaction (%)	3 (5)

- 58% of patients became undetectable following intervention (an additional patient had a viral load of 49)
 - 50% of patients with unknown reasons for viral load elevation became undetectable following intervention



Conclusions

- A proactive, patient-centered approach improved medication adherence, immune function, and virologic suppression
- Results suggest the need to address adherence/ medication understanding on an ongoing basis even in previously well controlled patients
- Success of this approach can be utilized to improve medication adherence in other chronic disease states
- Future steps include expansion of these interventions to other clinical sites and the creation of a medication adherence support group