



IDENTIFYING AND DEVELOPING STRATEGIES FOR IMPROVING HIV MEDICATION ADHERENCE

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Please feel welcome to ask questions and
give comments throughout 😊

Medication Adherence

- Taking medications according to the prescribed dosage, time, frequency, and direction
- Related to disease management outcome:
 - *Poor HIV medication adherence → high HIV viral loads*
- High HIV viral loads:
 - *Ongoing immune activation and inflammation*
 - *Opportunistic infections*
 - *Medication resistance*
 - *Higher infectivity (transmission)*

Factors Negatively Influencing HIV Medication Adherence

- Social – perceived poor social support, stigma
- Mental health – depression, psychological distress, psychopathology, non-adherence to psychiatric medications, HIV-associated neurocognitive disorder (HAND)
- Drug and alcohol abuse
- Pill burden - having too many medications to take
- Busy, away from home, changes in work routine
- Simply forgetting, poor prospective memory
- Feeling sick

Factors Positively Influencing HIV Medication Adherence

- Perceived improved health
- High social support, partner support (equitable power distribution in couples)
- Simpler medication regimens (e.g. without dietary instructions)
- High asset index (i.e. higher socioeconomic status)

Interventions with Successful Outcomes

- Patient information leaflet – HIV and ARV knowledge, self-efficacy
- Theory-based, computer administered ARV adherence support
- Education and counseling – most effective prior to virological failure
- Pharmacist – reduce pill quantity and dosing frequency
- Medication managers – individualized, structured, long-term support
- Treatment supporter, treatment partner
- Community-based treatment (vs. hospital-based treatment)
- Home-based treatment
- Directly delivered therapy by an outreach worker
- Mindfulness meditation – less reduction in CD4+ T cell counts

The HIV Patient Population in San Mateo County Health System

- Categorization of patient viral loads between May 2015 and June 2016:
 - *470 patients with at least one viral load measured*
 - *“Controlled HIV” = all viral loads <200: 376 patients (80%)*
 - *“Uncontrolled HIV” = at least one viral load >200: 94 patients (20%)*
- Review of demographics and other factors

Age

- Controlled HIV:
 - *Mean age: 46.8 years*
 - *Median age: 47 years*
- Uncontrolled HIV:
 - *Mean age: 44.1 years*
 - *Median age: 47 years*
- Not significantly different

Race & Ethnicity

Race/Ethnicity	Controlled HIV	Uncontrolled HIV
White	29.8%	33.0%
African American	16.0%	19.1%
Latino/a	42.6%	38.3%
Asian/Pacific Islander	7.4%	7.4%
Multi-Race/Other/Unknown	4.3%	2.1%

Not significantly different

Preferred Language

Preferred Language	Controlled HIV	Uncontrolled HIV
English	72.3%	75.5%
Spanish	24.5%	23.4%
Other	3.2%	1.1%

Not significantly different

Self-Identified Gender

Self-Identified Gender	Controlled HIV	Uncontrolled HIV
Female	22.3%	18.1%
Male	75.5%	80.9%
Transgender (male to female)	2.1%	1.1%

Not significantly different

Marital Status

Marital Status	Controlled HIV	Uncontrolled HIV
Divorced	4.3%	4.3%
Married	14.9%	8.5%
Separated	3.2%	3.2%
Single	75.5%	84.0%
Widowed	2.1%	0.0%

Not significantly different

Living Situation

Living Situation	Controlled HIV	Uncontrolled HIV
Homeless	1.1%	6.4%
Marginally Housed	1.1%	1.1%
Permanently Housed	31.9%	30.9%
Missing Information	66.0%	61.7%

Not significantly different

Substance Abuse

Substance Abuse	Controlled HIV	Uncontrolled HIV
Yes	36.2%	42.6%
No	22.3%	17.0%
Missing Information	41.5%	40.4%

Not significantly different

Most Recent Social Work Visit

Most Recent Social Work Visit	Controlled HIV	Uncontrolled HIV
<i>Less than 6 months ago</i>	54.3%	52.1%
<i>Greater than 6 months ago</i>	42.6%	42.6%
No social work visit	3.2%	5.3%

Not significantly different

Most Recent Medical Visit

Most Recent Medical Visit	Controlled HIV	Uncontrolled HIV
Less than 6 months ago	87.2%	79.8%
Greater than 6 months ago	12.8%	14.9%
No medical visit	0.0%	5.3%

Not significantly different

Total Number of Tablet/Capsule Prescriptions

- Controlled HIV
 - *Mean: 7.2 prescriptions*
 - *Median: 6.5 prescriptions*
- Uncontrolled HIV
 - *Mean: 7.3 prescriptions*
 - *Median: 6 prescriptions*
- Not significantly different

Total Number of Tablet/Capsule Prescriptions by Age

- Controlled HIV, 50 years and younger
 - *Mean: 6.1 prescriptions*
 - *Median: 5 prescriptions*
- Controlled HIV, 50 years and older
 - *Mean: 8.7 prescriptions*
 - *Median: 8 prescriptions*
- Uncontrolled HIV, 50 years and younger
 - *Mean: 5.9 prescriptions*
 - *Median: 5 prescriptions*
- Uncontrolled HIV, 50 years and older
 - *Mean: 10.2 prescriptions*
 - *Median: 10 prescriptions*
- **Significant difference between age groups for both controlled and uncontrolled HIV**, but no significant difference between controlled HIV and uncontrolled HIV for either age group

Most Recent Absolute CD4 Count

- Controlled HIV
 - *Mean: 642.5*
 - *Median: 594*
- Uncontrolled HIV
 - *Mean: 426.0*
 - *Median: 369*
- Significantly different

Number of Years with an HIV/AIDS Diagnosis

- Controlled HIV
 - *Mean: 11.8*
 - *Median: 8*
- Uncontrolled HIV
 - *Mean: 9.8*
 - *Median: 8*
- Not significantly different

Adherence Questionnaire Development

Based on:

- Literature review
- Data
- Interviews with healthcare providers and staff
- Interviews with patients

Adherence Questionnaire Sections

- Comorbidities
- Strategies for remembering to take medications
- Social support
- Culture/language
- Logistics (pharmacy, transportation, etc.)
- Interest in possible interventions

Thank you!

We would love to hear your thoughts on
this work!