

MAXIMISING ADHERENCE TO ANTIRETROVIRAL THERAPY (ART)

INTRODUCTION

The goal of highly active antiretroviral therapy (HAART) -- clinical and immunologic stabilisation and prevention of disease progression -- is most consistently achieved in patients who experience a sustained drop in HIV viraemia to levels less than 50 copies/mL. Adherence to the HAART regimen appears to be the single most important variable that predicts a patient's ability to achieve and maintain suppression of HIV viraemia to below the level of detection.ⁱ Sustaining high levels of adherence to antiretroviral therapy is difficult for many patients, but recent applied research among persons with HIV infection, including a study carried out in Barbados, offers hope.^{ii,iii} These studies demonstrate that high-level adherence to HAART is entirely possible with proper clinical management, strong patient confidence in the clinician and in the treatment, and effective involvement of patients as active agents in their own care and treatment.

THE DYNAMICS OF ADHERENCE

Two basic facts about the nature of adherence must be understood:

- **Achieving adherence is an interactive process.** While the ultimate responsibility for adherence to treatment rests with the patient, it is a complex process influenced by factors both internal and external to the patient, and a process in which the patient must confront and come to terms with those influences in a manner that is conducive to adherence.
- **Achieving adherence is not a one-time-only event.** It is a dynamic and ongoing process that the patient negotiates each time a dose of medication must be taken. Every day with every dose, clients must navigate those influences, many of them negative and outside their sphere of influence.

Therein lies the difficulty in achieving adherence: negotiating the interplay of influences that come to bear upon the simple act of taking a medication AND the fact that, in the case of the HIV-infected person, this negotiation must take place day after day, dose after dose, *ad infinitum*.

FACTORS AFFECTING ADHERENCE

What are those influences that intrude upon the client's decision to adhere to treatment? The World Health Organisation (WHO) characterises these factors as "interacting dimensions"^{iv} that exert negative or positive influences on treatment adherence. These factors and some of the attendant negative aspects that could interfere with treatment adherence are delineated in *Table 6*.

Table 6: Factors Influencing Patient Adherence: Possible Negative Aspects^{v,vi}

INFLUENCING FACTOR	POSSIBLE NEGATIVE ASPECTS
Social and Economic Factors	<ul style="list-style-type: none">▪ Socio-economic problems associated with being HIV-positive including unemployment, lack of money, adequate food, housing, etc.▪ Stigma and discrimination against PLWHA▪ Having to travel long distances to access care and treatment or medication
Healthcare Team- and Health System-Related Factors	<ul style="list-style-type: none">▪ Healthcare workers with a poor understanding of the dynamics of adherence▪ Healthcare workers with a poor understanding of the client▪ Stigma and discrimination from healthcare workers, not

	<p>necessarily those involved in the delivery of HAART</p> <ul style="list-style-type: none"> ▪ Inability or unwillingness to engage the client as an active agent in his/her own therapy ▪ Overworked staff with insufficient time or energy to engage the patient effectively ▪ Disjointed approach to care and treatment--workers not functioning as a team ▪ Poor linkages between the healthcare team and PLWHA community support groups
<i>Condition-Related Factors and Co-Morbidities</i>	<ul style="list-style-type: none"> ▪ Illness-related demands ▪ Severity of symptoms ▪ Alcohol and other substance abuse ▪ Psychiatric illness, including depression
<i>Disease Therapies</i>	<ul style="list-style-type: none"> ▪ High pill burden ▪ Difficult side effects ▪ Complicated regimens ▪ Poor fit between the medication regimen, patient's lifestyle, and eating patterns
<i>Patient-Related Factors</i>	<ul style="list-style-type: none"> ▪ Low literacy or educational level ▪ Poor self-confidence ▪ Lack of confidence in the physician and in the team ▪ Poor understanding of the details of the medication regimen ▪ Beliefs about the disease ▪ Beliefs about the efficacy of the treatment and alternate therapies ▪ Medication fatigue

MANAGING ADHERENCE EFFECTIVELY

Preparing Healthcare Workers for Adherence

Before antiretroviral therapy is introduced, healthcare workers and the system must be ready to manage treatment adherence effectively.

1. The HAART healthcare team (including clinicians, nurses, counsellors, social workers, pharmacists, nutritionists, etc.) must be trained to understand and manage adherence successfully.
2. The team and all other workers who interface with PLWHA must be trained and sensitised to treat them with dignity.
3. Systems must be established for efficient teamwork across disciplines AND also with community-based supports.

Strategies for Managing Adherence

Tables 7 and 8 outline a process for the efficient management of HAART adherence.

Table 7: Maintaining Adherence—Phase One: Starting Therapy^{vii,viii}

OBJECTIVE: To take practical measures at the start of treatment therapy to ensure that the patient takes the right medication, in the right dosage, at the right time, and under the right conditions, always.

STRATEGIC ACTIONS:

1. ASSESS THE PATIENT'S READINESS FOR HAART. IDENTIFY:

- Clinical status and other clinical factors that have a bearing on adherence;
- Beliefs regarding health, illness, being infected with HIV, and HAART;
- Attitudes toward medication, HAART, alternate therapies, etc.;
- Knowledge on HIV/AIDS, living with HIV infection, and HAART; and
- Elements in his/her lifestyle that may support or hinder adherence.

See Appendix A for a Sample Patient Adherence Risk Assessment Questionnaire.

2. ENGAGE THE PATIENT AS AN ACTIVE AGENT IN OWN THERAPY.

3. EDUCATE THE PATIENT: Fill in the gaps in patient knowledge on HIV/AIDS, living with HIV infection, and HAART, etc.

4. TAILOR TREATMENT REGIMEN, WHERE POSSIBLE, TO THE PATIENT'S LIFESTYLE AND NEEDS.

5. REVIEW POSSIBLE SIDE EFFECTS AND DEVELOP A CONCRETE PLAN FOR PATIENT/CLINICIAN COMMUNICATION ON ADHERENCE AS THE NEED ARISES.

6. ENCOURAGE THE PATIENT TO UTILISE AT LEAST ONE SUPPORTIVE MEASURE DESIGNED TO FACILITATE TREATMENT ADHERENCE. MEASURES COMMONLY USED IN THE REGION INCLUDE:

- A buddy or *accompagnateur*: usually a relative, friend, or community volunteer who completes regular, direct observation and documentation of the patient taking his/her medication. Partners in Health/Zanmi Lasante in rural Haiti is a best practice example.
- A helper: a well-trained volunteer who 'walks' exclusively with a PLWHA providing comprehensive support, including ensuring adherence. The Samaritan Ministries in the Bahamas is a best practice example.
- PLWHA support groups can be a source of weekly support sessions.
- Patient hotlines that are easily contactable for advice, support, and guidance.

Table 8: Maintaining Adherence—Phase Two: During Therapy^{ix,x,xi}

OBJECTIVE: To ensure continued patient adherence to the HAART regimen.
STRATEGIC ACTIONS: <ol style="list-style-type: none">1. AT REGULAR INTERVALS, AT LEAST AT EVERY CLINIC VISIT, DETERMINE PATIENT'S CAPACITY TO ADHERE TO THERAPY BY REVIEWING ADHERENCE RECORD. THE SHORTER THE PERIOD BETWEEN MONITORING SESSIONS, THE BETTER THE POSSIBILITY OF ACCURATE MONITORING REVIEWS. SOME USEFUL APPROACHES INCLUDE:<ul style="list-style-type: none">▪ Patient self-reporting: provide a treatment record form that the patient completes daily and submits for review at each clinic visit.▪ Pharmacy logs are useful if the patient refills prescriptions at one pharmacy.▪ Directly observed therapy (DOT) and documentation by a trained relative, friend, or community volunteer is a reliable method for monitoring, as well as supporting, treatment adherence.2. ADJUST TREATMENT REGIMEN, IF NECESSARY.3. REINFORCE VALUE OF ADHERENCE WITH EACH VISIT:<ul style="list-style-type: none">▪ Keep client informed of CD4+ T cell count and viral load response to treatment.▪ Continue to reinforce the role of exact HAART adherence in maintaining client's improved health status.

Again, high-level adherence to HAART is entirely possible, but it takes proper clinical management and a trusting provider-patient relationship—both of which demand that the clinician and other team members assume a comprehensive role, beyond that solely of providers of medication and of clinical services.^{xii}

ⁱPaterson DL, Swindells S, Mohr J, et al. Adherence to protease inhibitor therapy and outcomes in patients with HIV infection. *Ann of Int Med* 2000;133(1):21-30.

ⁱⁱSmith S, Marcus C, et al. A medication self-management program to improve adherence to HIV therapy regimens. *Pat Educ Couns* 2003;50(2):187-99.

ⁱⁱⁱAdomakoh N. Adherence strategies in Barbados. Paper presented at the First CHART Caribbean Conference on the Clinical Management of HIV/AIDS: A Multidisciplinary Team Approach, 16-19 Jun 2004, Kingston, Jamaica.

^{iv}World Health Organisation. Adherence to long term therapies: evidence for action. 2003:27-32. Available at: <http://www.who.int/chronic_conditions/adherencereport/en/>. Accessed 2003.

^v*Ibid.*

^{vi}American Public Health Association. Adherence to HIV treatment regimens: recommendations for best practices. June 2004 version:20-25. Available at: <<http://www.apha.org/ppp/hiv/>>. Accessed 2004.

^{vii}WHO, 2003.

^{viii}APHA, 2004:34-40.

^{ix}*Ibid.*

^xWHO, 2003:89-91.

^{xi}Adomakoh, 2004.

^{xii}Weller P. Adherence and ART: a summary of psychosocial issues. Paper presented at the First CHART Caribbean Conference on the Clinical Management of HIV/AIDS: A Multidisciplinary Team Approach. 16-19 Jun 2004, Kingston, Jamaica.