

ADHERENCE TO DRUG REGIMENS: A LEARNED SKILL

The challenge of adhering to potent combination antiretroviral regimens was discussed at the San Francisco course by Margaret A. Chesney, PhD, from the University of California San Francisco. The following short review highlights some of Dr Chesney's remarks, focusing on practical strategies for helping patients learn the skills necessary to adhere to these complex therapeutic regimens.

To best achieve maximum efficacy and prevent or delay the development of viral resistance, antiretroviral therapy must be potent, continuous, and well tolerated. The most potent regimens available are, however, the most complex and demanding. In addition, missed doses or "drug holidays" allow viral replication and more rapid selection of drug-resistant variants. These factors underline the urgent need to help patients improve their ability to adhere to drug regimens.

Preliminary findings from an ongoing study at San Francisco General Hospital of patients taking regimens that include a protease inhibitor found that 12% (21/179), 11% (19/179), and 13% (22/179) had skipped at least one dose the day before the interview, two days before the interview, and three days before the interview, respectively. The most common reasons offered for skipping a dose were that the patient had forgot (40%), slept through dose time (37%), was away from home (34%), had a change in routine (27%), or was busy with other things (22%).

Other reasons include feeling too sick, experiencing side effects, or being depressed. Data from the AIDS Clinic Trials Group (ACTG) 175 protocol indicate that younger age, depressed mood, perceived stress, pessimism about HIV disease, and lower levels of coping are correlates of nonadherence.

Adherence to a drug regimen involves a sequence of complex cognitive factors and behavioral skills. Patients must be able to (1) understand the regimen and believe they can adhere to the regimen (self-efficacy); (2) remember to take the medications; (3) integrate the regimen into their lifestyle; and (4) problem-solve to accommodate changes in routine and schedules. Specific strategies to help patients learn to integrate these behaviors are listed in the Table.

As noted by Dr Chesney, adherence involves not only following a drug regimen, but remaining in treatment, in clinical trials, and in the healthcare system. The findings from innovative education efforts will ultimately help highly active antiretroviral therapy become not only efficacious, but an effective approach to the treatment of HIV disease.

Margaret A. Chesney is Professor of Medicine and Co-Director of the Center for AIDS Prevention Studies at the University of California San Francisco.

(See also Friedland GH. Adherence: The Achilles' heel of highly active antiretroviral therapy. IMHD. 1997; 5:13-15.)

Table. Strategies for Improving Adherence to Antiretroviral Therapy

Clarify the regimen

- Follow up with patients one or two days after their clinic appointment to confirm their understanding of the regimen
- Provide accessible educational materials
- Make sure that patients understand all the instructions for taking the drugs (ie, ritonavir should be taken with a high-fat meal—what constitutes a "high-fat" meal?)

Self-monitor adherence with a personalized diary

- Identify/develop a diary/daily recording system that is easy for patients to use

Tailor the regimen to individual lifestyles

- Identify daily activities that are consistently performed at medication intervals (ie, television shows, meals)
- Provide patients with extra pill bottles so that medications can be physically placed where these activities take place (ie, on the television, in a desk drawer)
- Plan ahead for vacations and holidays that disrupt daily routines

Facilitate interaction with clinic staff

- Encourage patient empathy for and communication with clinic staff
- Address frustration with medical care system by teaching clinic survival skills
- Encourage patients to ask questions by providing them with index cards
- Train frontline staff on helping patients integrate regimens into their daily lives

Identify and remove personal barriers to adherence

- Help patients find ways to take drugs with privacy
- Create special cues to help patients remember to take drugs

Refer patients with special needs

- Identify conditions such as stress, substance/alcohol abuse and/or depression and refer patients to specialized treatment/support services

Enhance self-efficacy

- Prescribe a regimen of vitamins to be taken at the same intervals and with the same restrictions as HAART; problem-solve the challenges that arise
- Provide guided practice on planning ahead for weekends
- Offer positive feedback for new skills
- Demonstrate problem-solving and ways to integrate the regimen into their lives

Create a social environment conducive to adherence

- Gain permission to contact patients outside the clinic; make counselor calls and leave reminder messages
- Enlist support from patients' social network
- Maintain support/involvement of the primary care physician
- Give patients copies of viral load records; teach them how these measures are used in clinical decision-making