

# Adherence

## How to stick to your regimen

by Dr. Alice Tseng

**You've heard it a million times before: take all your doses, every day without fail. But adherence is no easy task when you're taking 10 different pills a day at four different times, some with and some without food. How do you stick to that schedule and why does it matter so much?**

**Alice Tseng** is an HIV drug specialist at the Immunodeficiency Clinic at Toronto General Hospital and an assistant professor in the Faculty of Pharmacy, University of Toronto. Her research interests include antiretroviral drug interactions, therapeutic drug monitoring and adherence.

Antiretrovirals (ARVs) work by interfering with the life cycle of HIV. When taken in combination — usually three or more drugs — they lower the viral load (amount of virus in the blood) and help slow down the progression of the disease. But ARVs don't cure HIV, and they won't work to control it if you don't take them. Not taking medication properly is one of the most common reasons for treatment failure.

Highly active antiretroviral therapy (HAART) needs to be taken consistently, exactly as prescribed, at the same time(s) each and every day. Although ARVs can effectively suppress the repli-

cation of HIV, they're broken down and rapidly removed from the body. So in order to effectively control HIV, which replicates very quickly, you need to have the right amount of ARVs in your body at all times. Missing even one or two doses a week can allow drug levels in your body to drop. This gives HIV a chance to start replicating and infecting new cells. Missing doses regularly gives HIV a chance to mutate and become resistant to the drugs you're currently taking; these mutated HIV viruses can reproduce and possibly lead to treatment failure. It can also limit your future treatment options because the mutated viruses don't go away.

### The tips

Adherence means taking the right number of pills at the right times under the right conditions (e.g. with or without food).

## The right *number*

If you forget a dose, take it as soon as you remember, but don't double your next dose because this may increase side effects. If you're having unbearable side effects or problems taking a large number of pills, talk to your doctor or pharmacist; they might be able to suggest a regimen that's easier for you to take.

## The right *combo*

Your HAART regimen likely consists of three or more drugs that need to be taken together to work against HIV. If faced with a choice, it's better to take no medications at all (at least for a short period of time) rather than only part of an effective combination.

## The right *times*

Divide your dosing times as evenly as possible throughout the day: for example, every 12 hours for a drug that needs to be taken twice a day, or every eight hours for a drug that needs to be taken three times a day. Create a schedule that fits into your daily routine and try to take your medications within one hour of each scheduled time.

## The right *food*

ARVs are large chemical structures that can be sensitive to stomach conditions. Some drugs have to be taken with food, while others need to be taken on an empty stomach. For example, saquinavir (Fortovase® or Invirase®) and nelfinavir (Viracept®) are best absorbed when taken with a meal or a high fat snack. Even if these meds are taken exactly on time with no missed doses, taking them on an empty stomach will result in lower drug levels and allow the virus to multiply.

## Prepare in advance

Before you start HAART:

Find out what dosing regimen you'll be on and practice taking candies or mints at those times. Or set an alarm to ring at your medication times. Doing this for a few days will give you a good idea of how the ARV schedule will fit into your life. Each time the alarm goes off, make a mental note of what you're doing and where you are. Are you at home? In the middle of a class or workout? Are you in an environment where you'd feel comfortable taking your meds?

Find out about the possible side effects of your meds, and make sure you have supplies on hand for relief (like Gravol® for nausea or Imodium® for diarrhea).

Build a support network: A buddy can be very helpful. Ask someone you trust to remind you to take your meds, help you out if you're not feeling well, and help you manage side effects.

## Get organized

Check that your bottles are clearly labelled with the drug name and directions. Keep a file of information leaflets that come with your meds.

Try to fit your dosing times into your daily routine, keeping in mind your normal waking and sleeping times, your meal times and other activities like working or going out.

Sketch out your schedule on a piece of paper and ask your pharmacist for help if you need it.

## Plan ahead

Keep your meds in a highly visible place like the kitchen table, near the TV, beside your bed or wherever you are at the times you take them. Placing a little "Post-It" note or magnet near the



## To eat or not to eat...

Here are some ideas to help you meet the food requirements for your ARV therapy.

### ***If your medication should be taken:***

#### **On an empty stomach**

#### ***Try...***

To take your medication either one hour before a meal, or at least two hours after a meal.

#### **With low-fat snacks**

Plain toast with jam, an apple and a glass of skim milk, cereal and skim milk, low fat pretzels, crackers, or plain popcorn.

#### **With fatty foods**

Crackers with cheese, fried egg on toast, bagel and cream cheese, baked potato with sour cream, pizza (Alternatively: potato chips, doughnut, chocolate bar, hamburger, french fries or ice cream can be eaten in an emergency.)



front door is a helpful reminder to take your meds before you head out the door.

Keep a small amount of your ARVs anywhere you frequently visit, like work, the gym, a friend's house, or in your bag as a spare supply (but check with your pharmacist about how to store your meds, since some drugs need to be kept in the fridge).

Don't let your ARV supply run low. Schedule appointments for new prescriptions with your doctor at least a week before they run out. For refills, call your pharmacy several days before you run out.

## Many devices, like dosettes, diaries and beepers are available to help you remember to take your meds

### Adherence devices

The main reason people miss a dose is that they simply forget. Many devices are available to help you remember and your pharmacist can tell you which will be most suitable for you. Some commonly used devices include:

**Dosettes:** Plastic containers that organize your meds. The containers are divided into sections for different times throughout the day. Dosettes come in different sizes, and can hold a day's or a week's worth of medication. But some drugs are sensitive to light, temperature and moisture. These should be kept in their original containers, so check with your pharmacist before buying a dosette (some AIDS Service Organizations listed on pages 8-9, can provide these free of charge.)

#### Medication diary/beepers:

Record each dose you take in a diary. If you find yourself missing a lot of doses, check your diary to see if there's a pattern. For example, people often forget doses on weekends or holidays because they sleep in later or have their meals at different times. Other missed doses may be due to working or late nights. If you notice a pattern, try to rearrange your medication schedule to better fit your routine and lifestyle.

Beepers or alarms can be used to remind you to take your meds.

**Ask for help:** If you have a supportive partner or family, show them your medication schedule so they can help you stick to

it. Join an HIV support group that discusses medication issues. If your regimen is complicated, your doctor or pharmacist can often help simplify it.

#### Tell someone if you're having problems:

It's normal to have trouble adjusting to new medication. Your healthcare team is there to help you, so let them know if you're experiencing difficulty. If you can't swallow your pills, your pharmacist may be able to provide a liquid form or you may be able to dissolve it in water or other fluids. If side effects bother you, tell your doctor. Sometimes a different drug can be substituted, or there may be remedies available to manage side effects.

### Psychosocial factors

Depression is not uncommon and can usually be successfully treated with counselling and/or pharmacotherapy (drugs), but if left untreated can contribute to non-adherence. If you suspect you're suffering from depression, tell your doctor without delay. If you're about to start or are already on antidepressants, tell your doctor and pharmacist because some can interact with ARVs.

Before starting HAART, try to make sure that other aspects of your life like work, housing and your support network are stable and your drug coverage is in place. Talk to your pharmacist or clinic social worker to make sure you understand the details of your drug coverage plan (complete vs. partial), what deductibles or co-payments might apply, whether you're eligible for additional provincial assistance, and whether there are flexible payment options for paying deductibles.

Do you know anyone who had a particularly good or bad experience taking ARVs? Perception of medication is another important factor that can positively or negatively affect adherence. Discuss any fears or concerns with your doctor or local support group beforehand. Don't start your meds until you really feel that HAART is a choice you're making to take control over your health, rather than an imposed intervention that interferes with your life.

Every day is important when it comes to adherence. Whether you've been on ARVs for weeks, months or years, it's still vital to take your meds as prescribed each and every day.

With so many ARVs available today, it's usually possible to create an effective regimen that's easy to adhere to. Many ideas and tools (often free) to make your ARV adherence easier are available from your pharmacist or local support group. Adherence is a skill that needs to be learned and re-learned each time you begin a new combo of meds. It's a challenge, but the effort you invest in getting it right will pay off as you get the most out of your therapy. **R**