

by Dr. Jean-Guy Baril

2005 may not be remembered as a revolutionary year in HIV/AIDS treatment, but the slow march of progress continues with some good new drug prospects and more palatable regimens of some tried and true medicines.

Easier (and fewer) meds to swallow

Single daily doses of combinations of existing nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs) and of protease inhibitors (PIs), including liquid formulations for some, will go a long way to improving adherence to therapy. This should help keep viral load undetectable and prevent (or at least forestall) resistance. This year abacavir and 3TC were approved in once-daily doses, and a new NRTI similar to 3TC called FTC is now available in Canada with a once-a-day formulation. The chart on the right outlines the advantages of some of these new formulations.

Hope after treatment failure

As well, two new PIs increase the options for salvage therapy when used with other active drugs to which you haven't yet been exposed. Tipranavir was approved in December 2005 in Canada and TMC114 is in Phase III trials. A new NNRTI called TMC 125 has yet to enter Phase III trials, but could provide another option after treatment failure when combined with a new PI.

Fuzeon® (T20) belongs to a new class of drug, and was approved for use after treatment failure with other regimens. It's given by injection and acts against the virus before it enters the immune cell. It can be combined with a new PI like tipranavir or TMC 114 to attack virus that's resistant to many other available medications.

Anti-CCR5 acts before the virus enters the cell, like T20. It blocks the virus' attachment to the cell, and thus prevents new cells from being infected. Three drugs are in the trial stage but there are concerns about safety and efficacy for some of them in some type of patients.

Valproic acid: Used to treat epilepsy and bi-polar disorder, this drug also seems to be able to bring HIV out of hiding and into the bloodstream, where it can be targeted by HIV medications. Results are very preliminary. **R**

What's new, what's coming in treatment

NRTIs and NtRTIs

Abacavir/lamivudine (Kivexa®)

- One tablet once a day; can be taken with or without food and fluids
- Low cross-resistance keeps options open in case of virologic failure
- Severe hypersensitivity reaction seen in about 5% of patients
- Approved in Canada in August 2005. Expected to make its way onto some provincial formularies in early 2006.

Tenofovir (Viread®)

- First NtRTI, approved for treatment naïve patients in July 2005. It was approved for treatment experienced patients in 2003.
- 300 mg once a day
- Not yet reimbursed in all provinces as first-line therapy
- Associated with less lipodystrophy than d4T and AZT™.

Protease Inhibitors (PI)

Atazanavir (Reyataz™)

- For treatment-naïve patients: two 200 mg capsules once a day, or
- For treatment naïve or experienced: 300 mg (two 150 mg capsules taken together once a day) plus a 100 mg ritonavir (Norvir®) capsule to boost atazanavir levels
- Capsule should be taken with a meal to ensure proper absorption of the drug
- Should not be administered with acid reducing agents used for heartburn.

Fosamprenavir (Telzir®)

- Two 700 mg capsules in the morning and two 700 mg capsules in the evening
- If also taking ritonavir (Norvir®), two 700 mg (Telzir®) capsules once a day or one 700 mg capsule in the morning and one 700 mg capsule in the evening with ritonavir
- Capsules can be stored at room temperature and taken with or without food
- This new formulation of the PI amprenavir was approved in Canada in December 2004. It achieves the same result with fewer pills because it is more easily absorbed in the gut.

Lopinavir/ritonavir (Kaletra®)

- Once-daily dosing approved in Canada in October 2005
- For treatment-naïve patients, six 150 mg capsules once a day or 10 mL (2 teaspoons) of the liquid formulation
- The liquid formulation can be stored at room temperature for up to two months
- As of now, the once-a-day dosage is not approved for treatment-experienced patients.

Lopinavir/ritonavir (Kaletra® tablet)

- A new tablet formulation of Kaletra was approved in the US in October 2005 and should be approved in Canada in the near future. It will drop the number of pills from six to four per day
- Four tablets once or two tablets twice a day. Each tablet contains 200 mg lopinavir and 50 mg ritonavir
- The tablets can be taken with or without food, do not have to be refrigerated and are not sensitive to heat. A new process called Meltrex allows the new tablet to disperse the drugs as thoroughly into the bloodstream as the capsule. The tablet form may also reduce diarrheal side effects.

Nelfinavir mesylate (Viracept®)

- New 625 mg formulation was approved in Canada in 2004. It cuts the pill burden from five to two tablets twice a day
- May reduce diarrheal side effects.

Saquinavir mesylate (Invirase®)

- New formulation expected to be approved in 2006 that will cut the number of pills per day from five twice a day to two twice a day.

Tipranavir (Aptivus®)

- Approved December 2005 in Canada for treatment-experienced patients who have failed prior PI regimens
- Has to be used with other active agents such as T20
- Dosage is 500 mg/twice a day. Must be taken with 200 mg of ritonavir 2 times a day.

