

## Treatments news from the IAS Conference

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### Treating mothers or infants during breastfeeding both equally effective

One late-breaking paper presented at the conference proved to be the fifth major study evaluating ways to make it possible for positive mothers to breastfeed their infants without passing on HIV.

A total of 2367 positive mothers and their children were included in the Breastfeeding, [Antiretroviral](#) [1]A medication or other substance which is active against retroviruses such as HIV. and Nutrition (BAN) study. To prevent transmission, all mothers were given a single dose of nevirapine during labour followed by a week of twice-daily 3TC and AZT and a nutritional supplement. Then, either the mother received ongoing [HAART](#) [2]Highly Active AntiRetroviral Therapy ??? aggressive treatment of HIV infection using several different drugs together. or the child received nevirapine for the next 28 weeks of breastfeeding.

Results showed a clear benefit in both strategies over no intervention at all and supported other similar trials presented at IAS. Investigators from one of these concluded that: 'Use of infant prophylaxis should be considered to reduce breast milk transmission risk in infants born to women with CD4 counts over 350, while women with CD4s below 350 should receive ART for their own health . . . which would be continued after breast feeding cessation for maternal health.'

### Once-daily Kaletra as safe and effective as twice-daily

Lopinavir/ritonavir (Kaletra) taken oncedaily as part of a combination antiretroviral regimen worked as well as the approved twice-daily dose in previously treated patients but led to better adherence, researchers reported

After 48 weeks of treatment, 55% of patients taking once-daily Kaletra had an undetectable [viral load](#) [3]A measurement of the quantity of HIV RNA in the blood. Viral load blood test results are expressed as the number of copies (of HIV) per milliliter of blood plasma. below 50 copies/ml, compared with 52% of those taking the twice-daily dose. This indicated that oncedaily Kaletra was non-inferior to twice daily dosing in previously treated patients. Past studies have shown that once-daily and twice-daily Kaletra work equally well in people starting treatment for the first time.

Both regimens worked similarly in patients with more HIV drug-[resistant](#) [4]HIV which has mutated and is less susceptible to the effects of one or more anti-HIV drugs is said to be resistant. mutations, and side effects including diarrhoea, nausea and elevated [cholesterol](#) [5]An essential component of cell membranes and nerve fibre insulation, cholesterol is important for the metabolism and transport of fatty acids and the production of hormones and Vitamin D. Cholesterol is manufactured by the liver, and is also present in certain foods. High blood cholesterol levels have been linked to heart disease and may be a side effect of some anti-HIV medications. counts were similar between both groups.

### Nevirapine just as good as atazanavir

Results from the ARTEN trial presented at IAS suggest that nevirapine is just as effective as atazanavir when combined with Truvada (tenofovir and emtricitabine) but the combo may be a lot more cardio-friendly.

Viral response was equally good for both groups, but total cholesterol counts were lower for those on the nevirapine combo. Plus, that group saw a boost in their so-called 'good' cholesterol counts.

Both nevirapine and Truvada are known to be [lipid](#) [6]A fat.-friendly but there has been some doubt about their [effectiveness](#) [7](Of a drug or treatment). The maximum ability of a drug or treatment to produce a result regardless of dosage. A drug passes efficacy trials if it is effective at the dose tested and against the illness for which it is

prescribed. In the standard procedure, Phase II clinical trials gauge efficacy, and Phase III trials confirm it together. This question seems to be answered and secures their place as a good first-line option.

## Already . . . a drug for those who fail on raltegravir

It seems that the new kid on the block – raltegravir – already has a replacement.

Early data reveals that GSK-572 may prove to be just as effective for those who have developed resistance to the original integrase inhibitor. In fact, other [in vitro](#) [8](Latin: within the glass) refers to the technique of performing a given experiment in a controlled environment outside of a living organism; for example in a test tube. data presented at this meeting suggest it may have an even better resistance profile to raltegravir.

These observations need to be confirmed in [clinical](#) [9]Pertaining to or founded on observation and treatment of participants, as distinguished from theoretical or basic science. studies but support further development of GSK-572 for patients across the treatment spectrum.

## Unboosted atazanavir equally good

Taking 300mg of atazanavir (Reyataz) without 100mg of ritonavir can keep your viral load undetectable, according to the ARIES trial.

All participants in the study were started on a boosted dose of atazanavir plus abacavir/lamivudine (Kivexa) then half of them dropped the ritonavir at 36 weeks.

Side effects were similar in both arms, however, the frequency of one – hyperbilirubinaemia, a cosmetic effect where the eyes and skin turn yellow – were almost double in the boosted arm.

Cholesterol counts and triglycerides were also more favourable for those not on a boosting dose of ritonavir, leading the investigators to suggest that stopping ritonavir was just as efficacious but had a more favourable lipid profile.

## Genotypic tests match tropism test

A genotypic test is just as accurate as the more expensive tropism test in determining who will be suitable for treatment with the CCR5 inhibitor, maraviroc, reported researchers from the University of British Columbia.

The finding opens the prospect of much cheaper testing to determine eligibility for CCR5 inhibitor treatment. It also coincides with a re-analysis of 96- week results from the MERIT study showing that maraviroc is just as effective as efavirenz in treatment-naive patients, albeit better tolerated.

CCR5 inhibitors are a new class of antiretroviral drug that block the CCR5 co-receptor used by HIV to gain entry to CD4 cells. CCR5 inhibitors only have an effect in people who are predominantly infected with HIV that is adapted to using the CCR5 receptor, typically people with higher CD4 counts and less advanced HIV disease.

## Abacavir cardio risk debate continues

Two studies presented at IAS found no association between abacavir (Ziagen and also in the Kivexa combination pill) and increased risk of [heart attack](#) [10]A life-threatening emergency in which the blood supply to the heart is suddenly cut off, causing the heart muscle (myocardium) to die from lack of oxygen. or stroke, and underlined the importance of confounding risk factors.

Researchers at last year's conference first reported that participants in the large DAD study who used abacavir had more heart attacks than people who took other nucleoside reverse transcriptase inhibitors (NRTIs). However, several subsequent studies examining this link have produced conflicting results.

In one study, the presence of hepatitis C or kidney disease were found to be more significantly linked to a higher rate of heart attack. (Abacavir is commonly prescribed for those with kidney problems.) These risk factors, when combined with the traditional ones including smoking, weight and family history, ruled out abacavir as being statistically significant.

In another study, the blood biomarkers of people receiving tenofovir (plus emtricitabine) were compared with those on abacavir (plus lamivudine or 3TC). There were no significant differences between the two groups after one year.

In another presentation, researchers warned that cocaine and injecting drug use were strong cardiovascular risk factors that must be taken into account.

## **Boosted darunavir works well alone**

According to two studies, ritonavirboosted darunavir (Prezista) alone manages to suppress HIV in most people who have already achieved an undetectable viral load on combination antiretroviral therapy.

Both studies compared those on a single daily dose of darunavir boosted with ritonavir (600/100mg and 800/100mg respectively) with others on triple therapy and found little or no difference between the groups.

The investigators surmise that this is a viable alternative to standard triple therapy that is less expensive and avoids NRTI toxicities with no significant negative consequences.

- [abacavir](#)
- [atazanavir](#)
- [nevirapine](#)
- [pregnancy and childbirth](#)
- [raltegravir](#)
- [resistance tests](#)

### **Links:**

[1] <http://www.napwa.org.au/glossary/term/122>

[2] <http://www.napwa.org.au/glossary/term/96>

[3] <http://www.napwa.org.au/glossary/term/416>

[4] <http://www.napwa.org.au/glossary/term/109>

[5] <http://www.napwa.org.au/glossary/term/88>

[6] <http://www.napwa.org.au/glossary/term/100>

[7] <http://www.napwa.org.au/glossary/term/486>

[8] <http://www.napwa.org.au/glossary/term/500>

[9] <http://www.napwa.org.au/glossary/term/475>

[10] <http://www.napwa.org.au/glossary/term/103>