

Highlights from the sixth International AIDS Society Meeting

The Auditorium Parco della Musica, Rome, Italy was the grand setting for the sixth International AIDS Society Meeting on HIV Pathogenesis, Treatment, and Prevention July 17–20, 2011. The conference, which is hosted in alternate years to the politicised, campaigning International AIDS Conference aims to promote the most innovative science across four research tracks: basic sciences, clinical sciences, prevention science, and operations and implementation research. The operations and implementation research track was first introduced at the 2009 meeting in Cape Town as operational research, but has since expanded to in recognition of the importance of acting on results of operational research to deliver care. In the months preceding the conference, the announcements of results from three studies of the use of antiretroviral drugs (ARVs) to prevent transmission of HIV set the main agenda for the conference at which the phrase “treatment is prevention” was heard in many sessions.

Treatment is prevention

In the run up to this year’s conference several high-profile trial results provided encouraging data for the use of antiretroviral therapy as pre-exposure prophylaxis to prevent (PrEP) HIV infection. And presentation of the data from these trials at the conference made real the prospect of using ARVs as prevention. In May, the international HIV Prevention Trials Network (HPTN) 052 study was stopped early when early initiation of combination antiretroviral therapy for HIV infected partners was shown to reduce transmission of HIV to uninfected partners by 96% compared with late initiation. In the week leading up to the conference, the Partners PrEP study among serodiscordant couples in Kenya and Uganda, was also stopped early when interim analyses showed that giving tenofovir

or tenofovir plus emtricitabine to the HIV negative partner reduced HIV risk by more than 62% compared with placebo. And the TDF2 study showed that treating young sexually active men and women with tenofovir and emtricitabine reduced rates of HIV acquisition compared with placebo when provided alongside advice on safer sex. Also at the conference, the researchers behind the iPrEx study of PrEP with the same combination in transgender women and men who have sex with men in six countries, which has already shown effective results, announced a 72 week extension of the study to better understand the long-term effect of the approach. As the conference came to a close, Elly Katabira, International AIDS Society President, said that the new results created a “scientific watershed” showing treatment is prevention.

Neglected disease

The Drugs for Neglected Disease Initiative (DNDi) announced at the conference the launch of a drug development programme for paediatric HIV. Of 2.5 million children younger than 15 years with HIV, 2.3 million live in sub-Saharan Africa, and despite the effectiveness of prevention of mother to child transmission (PMTCT) 1000 children are infected with HIV and 700 die from AIDS-related complications every day. A third of children infected with HIV at birth will die within 1 year and a half will die within 2 years. DNDi said that because “transmission in young children has largely been eliminated in high income countries...little market incentive exists for pharmaceutical companies to develop antiretroviral drugs adapted for children”. Mark Lallemand, the head of DNDi’s HIV Programme, said that mothers not diagnosed or not receiving adequate treatment continue to pass the virus onto their children. “Children



The sixth International AIDS Society Meeting was held in Rome, July 17–20

need treatment immediately”, he said, “but ARVs are not user friendly for mothers to give to children age 0–3 years”. Eric Groemare of Médecins sans Frontières said that children are penalised because the drugs available are not easy to use: they come in three syrups that are not co-formulated, the doses of which have to be adjusted as children age. Continuity of care is also a problem in many situations with instructions for treatment needing to be passed on as carers change. The DNDi’s priority is development of an improved first-line protease-inhibitor-based regimen for children under 3 years of age, the treatment should be easy to give, easy to distribute, and dosed once daily or less.

Towards an HIV cure

Amid the excitement of the findings of the recent prevention trials, the lasting legacy of the conference may well be the Rome Statement for an HIV Cure. The three main objectives of the strategy are to recognise the importance of developing a cure to permanently suppress HIV replication, to stimulate international multi-disciplinary research collaborations, and to encourage other stakeholders, organisations, and governments to support cure research. The full strategy will be presented at the 2012 International AIDS Conference in Washington, DC, USA.

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For the IAS Meeting 2011 see <http://www.ias2011.org/>

For more on the HPTN 052 study see http://www.hptn.org/research_studies/hptn052.asp

For more on the Partner’s PrEP study see <http://depts.washington.edu/uwirc/research/studies/PrEP.html>

For more on the TDF2 study see http://www.cdc.gov/botusa/BasicFacts_TDF2.htm

For more on the iPrEx study see <http://www.niaid.nih.gov/news/QA/Pages/iPrExQA.aspx>

For more on DNDi’s drug development for paediatric HIV programme see <http://www.dndi.org/press-releases/928-paediatric-hiv.html>

For more on the Rome Statement see <http://www.iasociety.org/Default.aspx?pageId=584>