Ending AIDS and challenges for Asia

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HIV Netherlands Australia Thailand Research Collaboration (HIV-NAT)'s commitment to provide educational training every January to the region returned this year after the cancellation of 2014's symposium due to political unrest. More than 500 participants from five continents attended the 3-whole-day symposium; 60 also attended Data Safety and Monitoring Board (DSMB) preconference workshop sponsored by Harvard University's Multiregional Clinical Trial Center and 50 attended the Qualitative Research preconference workshop held by our sister organization SEARCH. A wide number of topics were discussed and a few are listed: prevention and cure, combination of antiretroviral therapy, elderly, coinfections, policy implementation, sexual health and stigma. This article briefly summarizes some of the plenary sessions.

Professor Joep Lange & Jacqueline van Tongeren Memorial Lecture: treatment as prevention: approaches to maximize impact

Julio Montaner (British Columbia Centre for Excellence in HIV/AIDS and Centre for Excellence in HIV/AIDS at Providence Health Care, Canada) provided useful data, experiences and outcomes/results [1] in the implementation of the treatment as prevention (TasP) [2,3] in various cities in Canada [4]. An example of the effectiveness of this strategy in reducing new infections was shown using data obtained from people who inject drugs. The 90–90–90 UNAIDS vision to eliminate HIV infection is achievable if implemented globally without contributing to more drug resistances [5] and was found to be cost effective in the long run.

KEYWORDS

• Asia • cART • combination antiretroviral therapy • elderly • HIV • PMTCT • pre-exposure prophylaxis • PrEP • prevention of mother-to-child transmission • public policies • treatment as prevention (TasP)

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HIV & aging: what clinicians should not miss?

Peter Reiss (Division of Infectious Diseases, Department of Global Health Amsterdam Institute for Global Health and Development Academic Medical Center, University of Amsterdam, The Netherlands) presented evidence that there are increasing numbers of people living with HIV (PLWH) developing age-associated noncommunicable comorbidities such as osteopenia/osteoporosis (i.e., lumbar spine, femoral neck and total hip) [6], hypertension [7] and frailty (i.e., unintentional weight loss, weakness, exhaustion, slowness and low physical activity) [8]. The increase correlates with time spent at low CD4 counts [9]. He presented a comprehensive list of risk factors associated with comorbidities (i.e., toxicity from combination antiretroviral therapy [cART], lifestyles and genetics of the host, persistent immune dysregulation and inflammation in treated HIV disease) [10]. For example, smoking has a detrimental effect on subclinical atherosclerosis in older HIV-infected patients [11], causes loss of more life years [12] and contributes to mortality [13]. He gave examples of 'hallmarks of aging' [14] and acknowledged that toxicities from new antiretroviral drugs are less of a problem than those seen with older agents. For example, tenofovir alafenamide has less effect on bone mineral density than tenofovir disoproxil fumarate (TDF) [15].

Adult HIV treatment guidelines: what's new?

Ploenchon Chetchotsakd (Division of Infectious Diseases and Tropical Diseases, Faculty of Medicine, Khon Kaen University, Thailand) provided a comprehensive review of the recent changes of treatment guidelines comparing Department of Health and Human Services (DHHS), International AIDS Society USA, Europe, British HIV Association and Thai National Treatment Guidelines on their recommendations regarding optimal timing of antiretroviral therapy initiation, preferred cART regimens, Efavirenz in pregnancy and when to start antiretrovirals (ARVs) in HIV/tuberculosis coinfecting populations. She presented data from relevant trials supporting the modified sections of the treatment guidelines such as STARTMRK, ACTG 5257, SINGLE, FLAMINGO, CIPRA HT 001 and HPTN 052.

Treatment failure

David Cooper (The Kirby Institute for Infection and Immunity in Society, Australia)

comprehensively examined ways to manage and approach treatment failure by first discussing the WHO 2013 recommended regimens, as well as other relevant guidelines. He anticipates that in the future, first-line cART may use low-dose Efavirenz which has been shown to be safe and efficacious [16]. Other ideal characteristics would be low potential for interaction with rifampicin, available as a fixed-dose combination, and includes an integrase inhibitor. Studies have shown that virological failure is not a great method to measure failure in the low-income setting [17] and had a small benefit to monitor failure based on the intention-to-treat [18] data. According to the WHO 2013, Zidovudine (AZT) can replace failed TDF or FTC whereas TDF can be used in place of failed AZT or Lamivudine (3TC). WHO's recommendation for the second-line regimens is not evidence based on clinical trials, but on the experiences of the experts. Lopinavir/ritonavir (LPV/r) monotherapy is not recommended [19] and boosted protease inhibitors (PIs) also have resistance problems [20]. In order to keep matters simple without the need for genotype testing, he recommended the use of two new classes, or integrase inhibitor with boosted Lopinavir (LPV) for second-line regimens.

The latest in prevention mother-to-child transmission & pediatric treatment guidelines

Thanyawee Puthanakit (Division of Infectious Diseases, Department of Pediatrics, Faculty of Medicine, Chulalongkorn University, Thailand) started the session by supporting the UNAIDS 2014 vision that in the future, all children will be born HIV free. She showed the evolution of the WHO's Prevention Mother-To-Child Transmission (PMTCT) guidelines spanning from 2001, 2004, 2006, 2010 and 2013 as well as from British HIV Association 2012, Thailand 2014 and DDHS 2014. She briefly mentioned that the new WHO PMTCT guidelines for 2015 should address challenging issues regarding MTCT prevention/HIV elimination; PMTCT service delivery/multiple entry points; ongoing risk of HIV in pregnant postpartum women; and early infant diagnosis/linkage to pediatric treatment. She then gave an extensive review of pediatric HIV treatment guidelines. She described critical issues related to providing treatment to infants, children and

adolescents as well as provided a list of pediatric formulated ARVs currently available and also described the role of integrase inhibitors for both children and adolescents.

Coordinating public policies for ending AIDS: the experience from Thailand

Lessons learned from Thailand's HIV experiences and techniques used to develop/implement public policies, were explained by Nakorn Prem Sri (Department of Disease Control, Ministry of Public Health, Thailand). Time to initiate cART in Thailand was used as an example how an idea can go from paper to becoming part of the national guidelines. He provided step-by-step instructions how this was derived and implemented. The vision for AIDS-free generation from the International AIDS Conference 2012 inspired the Thai policy makers to form five committed working groups in various fields knowledgeable about HIV (i.e., modeling group/cost-effectiveness for TasP, scale-up, task-shifting for HIV test and counseling, option B+ [long-term ARVs for mothers] and Pre-Exposure Prophylaxis [PrEP]). This resulted in a series of consultations with TasP model, cost-benefit analysis/return of investment and the data from HPTN 052 study. Technical and economic evidence were presented to the policy makers, and convinced them that treatment for all would be the country's strategic plan to end AIDS. A strategic framework was developed to address the issues of task-shifting for HIV testing and counseling, strengthening the current cascade for treatment and care, as well as funding.

Effect of stigma on HIV treatment uptake, retention & care

This issue has never been discussed at the symposium and was presented by Stephen J Kerr (HIV-NAT, Thailand; The Kirby Institute, Australia). It highlighted that stigma is very real in our society, and stems from poor and/or inaccurate knowledge about transmission, and fear of contagion. Stigma leads to people being treated differently, and discriminated against. Various kinds of stigma exist, including self-stigma (self-blame/guilt), perceived stigma and enacted stigma. These together result in stigma concern which has detrimental effects on the mental health of PLWH and is linked with poor adherence [21]. Stigma also presents people from marginalized groups from presenting for

HIV testing. Positive relationships with health-care teams and social capital help to negate the effects of stigma. In Thailand, novel use of social media (e.g., Adam's Love website [22]) has helped to encourage men who have sex with men to present for HIV testing. Stigma reduction is an imperative component of 'getting to zero'.

The great debate: starting antiretroviral therapy regardless of CD4 count is feasible in Southeast Asia

Thailand has moved to treat all HIV-infected patients regardless of their CD4 count. Since many countries in the region look to and rely on the Thai National Treatment Guidelines, it was important to gauge whether other countries in the region would be prepared to adopt the same policy. The debate was facilitated by Annette Sohn (TREAT Asia, amfAR, Thailand). The audience members voted prior to the debate, with 57.1% agreeing that it would be feasible to treat all in Southeast Asia, 28.6% disagreeing and 14.3% undecided. The 'yes' team, comprising Praphan Phanuphak (Thai Red Cross, AIDS Research Centre) and Julio Montaner stated that the benefits of early antiretroviral therapy are invaluable (e.g., recovery of immune function and ability to maximize the chances for a normal life span). They reminded the audience about their moral obligation to provide the highest quality of treatment available, which has been supported by multiple research studies. In addition, offering testing and then immediate early treatment had the potential to bring more people 'out of the woodwork' and into HIV testing. It was estimated by their team that the change from the current WHO-recommended treatment criteria to treating all patients with HIV accounted for only a 10% increase in patients, and thus in overall program costs. A healthier population would increase income per household, and reduce HIV transmission, death, long-term costs and drug resistance. Representing the team against the 'feasibility' were Sean Emery (The Kirby Institute, Australia) and Somnuek Sungkanuparph (Division of Infectious Diseases Department of Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand). They argued that 'having a choice' is not the same as 'no choice to start ART'. All available data informing this issue are from observational cohort studies and scale-up is impossible if current ART coverage is less than 50% in Indonesia, Myanmar and Malaysia.

Furthermore, treating people at all CD4 counts may also lead to increases in drug resistance. They were able to convince a large proportion of the audience to change their decisions to 'unfeasible,' winning the vote by impressively increasing the percentage twofold to 56.6%, whereas the 'yes' vote declined to 30.3% and undecided maintaining their neutrality at 13.1%.

The 18th Bangkok International Symposium on HIV Medicine will be held on 13–15 January 2016.

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