# News Retter

# **Hong Kong Society for HIV Medicine**

香港愛滋病醫學會

# MESSAGE FROM PRESIDENT

### Issue 2 November 2017

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## 30 years on

2017 marks the 30th year since antiretroviral treatment became available for clinical use. In 1987. shortly after the marketing of zidovudine in the US, it has emerged as the only hope for HIV patients around the world, and Hong Kong is no exception. The earliest regimen was something intolerable by today's standard – taking the medicine 5 times a day, with a total daily dose of 1g; and we're concerned about never adherence during those days. For patients who tolerated the treatment there was evidence of transient improvement, both clinically and the demonstration of moderate CD4 gain. It was not until 10 years later that combination treatment became the gold standard for HIV management. Looking back, we have learned a lot from these early days of HIV medicine. We were then closer to HIV patients despite their short lifespan under our care. Some patients were seen weekly at the clinic, versus every 4 months today! Sadly, health workers got used to going to some patients' funeral, a rarity in today's HIV world. Clinical trial was something that patients longed for but were rarely exposed to in real life, especially in Hong Kong. I remembered a young patient I had been seeing regularly in the early 1990s: I witnessed his deterioration with weight loss and repeated infections despite his use of zidovudine monotherapy. One day he

came back to the clinic to say goodbye, as he would want to see more of the world before his death. With the money earned in the preceding years, he planned to fly somewhere that he could die comfortably. He did not expect to be able to live more than a year. Surprisingly he returned a year later and I could not recognize him, as he had gained weight and become a healthy man again. He had the chance of joining a clinical trial in combination treatment, which saved his life.

What are the lessons from these early days of HIV medicine: importance perseverance, evidence-based treatment, cross-disciplinary care, never give up, trusted doctor-patient relationship ..... In western countries, HIV medicine had never been far from academic research. Quite rightly so, as there's the demand for inquisitive people to find questions and then find answers for their questions, in HIV control, from clinical and public health perspective. I heard people saying that HIV research is so advanced elsewhere that it's hard to find a good research angle here and now. Well, so long as the last impactful observation has not been made (never!) there is still the opportunity to make a difference. Thirty years ago, I had never dreamed about effective HIV treatment that we are seeing today. I wonder what's the standard for HIV medicine 30 years from now.

Prof S S Lee



# Activities of the Society

# Evening lecture on "Practical Strategies for Enhancing HIV Treatment" (May 2017)

HKSHM co-organized an evening lecture on "Practical Strategies for Enhancing HIV Treatment" with the Hong Kong College of Medical Nursing on 15 May 2017. The lecture was given by Dr. David Hardy from USA. Dr. Hardy summarized the results of recent studies in the management of HIV infection and nicely demonstrated on how to translate these study results into practice through real-life case studies.



Dr. David Hardy illustrated the impacts of recent studies on HIV management

## Asia Pacific AIDS & Co-infections Conference (APACC) 2017 (June 2017)

Apart from being one of the supporting organizations of the APACC 2017, HKSHM set up a booth at the exhibition hall during the conference. The booth, at which our newsletter, local HIV guidelines and souvenirs were distributed, was well attended by the participants of the conference.



APACC participants visiting the booth of HKSHM during the conference

During the conference period, HKSHM and Hong Kong College of Medical Nursing also co-organized an evening symposium on "Challenges in managing HIV patients with CNS & renal comorbidities; a holistic approach from a multidisciplinary perspective" on 1 June 2017. We are pleased to have Prof. Jürgen Rockstroh from Germany and Prof. Nicholas Paton from Singapore to enlighten us on some practical tips in the management of CNS and renal comorbidities. Dr. Kelvin Kai-Leung Ho and Prof. Char-Nie Chen, local invited experts in nephrology and psychiatry respectively, then discussed with Prof. Rockstroh and Prof. Paton on the challenges



in the management of comorbidities in HIV patients and shared their views and experiences in managing their patients.



Prof. Paton, Prof. Rockstroh and Prof. Chen gave lectures on renal, neurological and psychiatric comorbidities respectively in the symposium on "Challenges in managing HIV patients with CNS & renal comorbidities; a holistic approach from a multidisciplinary perspective"





Dr. Owen Tsang hosted the panel discussion on management of neuropsychiatric and renal comorbidities in HIV infected patients after the lectures

# Dinner symposium on "The Evolving Management of HIV" (September 2017)

Co-organized by HKSHM and Hong Kong College of Medical Nursing, HIV dinner symposium on "the Evolving management of HIV" was successfully held on 12th September 2017. Prof. David Alain Wohl from USA highlighted the good efficacy and favourable safety profile of new nucleoside reverse transcriptase inhibitors (NRTI) 'backbone'. Prof. Wohl also emphasized the importance to individualize therapy to optimize outcomes among patients with diverse background.



Dr. Wohl discussed with Dr. Man-Po Lee on the current status and future development of HIV treatment, after his lecture on "The Evolving Management of HIV"



## What's coming up in Hong Kong?

• "Journey of HIV Medicine" exhibition, 15 November to 14 December 2017

To commemorate the 30th anniversary of the first FDA approved antiretroviral agent, zidovudine, to treat HIV infection, HKSHM is going to organize a "Journey of HIV Medicine" exhibition at the Hong Kong Museum of Medical Sciences from 15th November to 14th December 2017 with <u>free entry from 1st December to 7th December 2017</u>.



Apart from the development and advances in HIV/AIDS treatment, the exhibition will cover key milestones in HIV sciences, current situations of HIV/AIDS

and progression to creating an AIDS-free future.

• 1st Annual Scientific Meeting cum Seminar on ChemSex, Hong Kong Society for HIV Medicine, 2 December 2017



### More HIV conferences...

- Conference on Retroviruses and Opportunistic Infections (CROI) 2018, 4-7 March 2018 | Boston, USA
- Asia Pacific AIDS & Co-infections Conference (APACC) 2018, 28-30 June 2018 | Hong Kong SAR, China
- 22nd International AIDS Conference (AIDS 2018), 23-27 July 2018 | Amsterdam, Netherlands
- HIV Drug Therapy Glasgow 2018, 28-31 October 2018 | Glasgow, UK

Come and join us on the journey from FEAR to HOPE in the history of HIV/AIDS





# Record high quarterly figure of new HIV infections in Hong Kong

The number of new HIV cases in Hong Kong has hit its highest quarterly figure with 202 cases reported to Centre for Health Protection (CHP) of the Department of Health (DH) in the first 3 months of this year since records began in 1984 when the first case of HIV infection was diagnosed. Despite the number of new infections slightly reduced to 187 cases in the second quarter, the combined figures of the first 2 quarters in 2017 composed the recordbreaking half-year number of new infections. Infections among men who have sex with men (MSM) still dominated the epidemic. If the trend continues, it is estimated that the proportion of new MSM cases will reach 74% among all new infections and the HIV incidence of MSM will increase to 1.64 per 100 person-years in 2021, according to the Recommended HIV/AIDS Strategies for Hong Kong (2017-2021) published in May 2017 by the Hong Kong Advisory Council on AIDS (ACA).

# Recommended HIV/AIDS Strategies for Hong Kong (2017-2021)

As the blueprint for a co-ordinated and consolidated response on local HIV prevention and control including policy recommendations and priority areas for action for the next five years, the report highlights five main directions for HIV prevention and control as follows:

- 1. Men who have sex with men (MSM) should receive HIV antibody testing annually and use condoms consistently, irrespective of their self-perception of risk of infection;
- 2. All HIV-positive patients should receive HIV treatment as soon as they get diagnosed;

- 3. Capacity building in HIV-related service settings to identify drug-using clients and improvement of HIV prevention and testing services in drug rehabilitation and treatment services should be strengthened;
- 4. Sex and HIV education should be intensified through a life skills-based education approach, and it should be age-appropriate, focusing on the avoidance of risky sexual behaviour and HIV-related discrimination; and
- 5. Antenatal testing of pregnant women who are at risk of HIV infection should be strengthened to prevent mother-to-child transmission

These new strategies have taken into consideration global and local HIV/AIDS situation and future projection, current local responses, evidence of scientific developments, recommendations among international health agencies as well as the opinion of stakeholders and the public collated during the consultation exercise, and have also drawn reference from the previous strategies. Hopefully, these strategies can help to bring down the number of new HIV infections and stop the epidemic in Hong Kong.

#### Reference:

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- 2. 187 HIV cases recorded in second quarter of 2017, Centre for Health Protection, Hong Kong. Available at <a href="http://www.info.gov.hk/gia/general/201708/29/P201708">http://www.info.gov.hk/gia/general/201708/29/P201708</a> 2900265.htm
- 3. Recommended HIV/AIDS strategies for Hong Kong 2017-2021, Hong Kong Advisory Council on AIDS. <a href="http://www.aca.gov.hk/english/strategies/pdf/strategies17-21.pdf">http://www.aca.gov.hk/english/strategies/pdf/strategies17-21.pdf</a>





Highlight from IAS conference 2017 on HIV Pre-exposure Prophylaxis (PrEP) & treatment



**Owen Tsang** 

The 9th IAS Conference on HIV Science (IAS 2017), organized by the International AIDS Society, took place in Paris, France, from 23-26 July 2017. The conference covered multiple areas in HIV management and prevention. Some highlight on **PrEP** and **HIV treatment** is illustrated below:

### **PrEP**

- The French IPREGAY randomized control study has proven the benefit of "on-demand" PrEP in preventing HIV transmission among MSM. However, those who had regular sex might have taken almost fulltime PrEP. Therefore, it might cause bias to the measurement of effectiveness of "ondemand" PrEP. The investigators had performed a sub-analysis to look into those men who used PrEP systematically but took fewer pills than average. Their median number of occasions of sex was actually lower than average. 6 out of 16 HIV infections were identified in this group, but all 6 out them were randomized to placebo. This suggests that this subgroup of individuals who had less risky sex than average but used PrEP consistently, PrEP offered them complete protection.
- Previous studies on PrEP showed that sexually transmitted infections increased in PrEP users, though a causal relationship could not be defined. However, the UK

- PROUD study on use of PrEP in MSM did not find such association. The PROUD investigators in fact observed a 24% decline in gonorrhoea in central London, accompanied with a 42% decline in HIV infections during the same period. Although the reason for the fall was unclear, it could be partly the consequence of enhanced testing by MSM using PrEP and the awareness of the benefit of early treatment.
- The effectiveness of PrEP relies on maintaining a good drug adherence. However, taking medication daily may be difficult for some patients. The HPTN 077 study demonstrated that 8 weekly injectable long-acting carbotegravir was a safe and well-tolerated option. Its efficacy as compared to daily Truvuda in preventing HIV transmission is underway in another multi-centre trial.

### **HIV** treatment

**Bictegravir.** The experimental integrase strand transfer inhibitor bictegravir based regimen was shown to be non-inferior to dolutegravir based regimen in previous phase 2 trial in treatment naïve HIV patients (97% vs 91% with undetectable HIV RNA at 48 weeks respectively). Another phase 3 study comparing single tablet regimen (STR) containing bictegravir, tenofovir emtricitabine. alafenamide and dolutegravir, tenofovir alafenamide and emtricitabine was presented. At week 48, the bictegravir STR was shown to be noninferior to the dolutegravir containing regimen (89% vs 93% with undetectable viral load respectively). Virological failure was rare for both cohorts. However, treatment discontinuations were slightly more common with bictegravir (3 vs 1%), but these were unrelated to poor efficacy or tolerability. A second study compared the bictegravir STR to dolutegravir based STR (Triumeq) also demonstrated noninferiority of the experimental drug at week



48 (92 vs 93% with undetectable viral load). The most common side-effects were headache and diarrhoea. Studies on switching treatment are underway.

- First protease inhibitor-based STR. STR can improve treatment adherence. In the phase 3 EMERALD randomized openlabel study, patients on protease inhibitor (PI) regimens (70% on boosted darunavir) with suppressed viral load are randomly assigned to either the first protease inhibitor STR containing darunavir, cobicistat, emtricitabine and tenofovir alafenamide, or their original regimens for 48 weeks. The 24-week interim results were presented. 96% of the STR group vs 95.5% in the control group maintained viral suppression < 50 copies/ml. Virological rebound was noted in both study arms (1.8 vs 2.1%, respectively). No PI or NRTI resistance associated mutations were identified. STR treatment was safe and well tolerated in general. The drug related adverse events were similar between the 2 cohorts.
- Injectable cabotegravir plus rilpivirine. Current anti-retroviral therapy has to be taken daily. However, it can be challenging for some patients. Long acting injectable medications can offer an alternative. Previous 96 weeks of LATTE-1 study demonstrated that switching virologically undetectable patients to oral cabotegravir plus rilpivirine maintained viral suppression in 76% of them as compared to 63% of those who stayed on a three-drug regimen containing efavirenz. The 96 weeks data on LATTE-2 trial evaluating long term nano-suspension formulations of cabotegravir and rilpivirine as intramuscular injections, administered once every 4 or 8 weeks vs oral cabotegravir plus abacavir/lamivudine, was presented in the conference. It showed that 94% of people on the Q8W injectable combo and 87% on the Q4W regimen maintained viral

- suppression, compared with 84% on the continued oral regimen. The injectables were generally safe and well tolerated. Almost all participants reported transient mild to moderate injection-site reactions. Only two people (< 1%) stopped treatment early for this reason. Despite these reactions, around 80% of the participants reported that they were highly satisfied with the longacting therapy and around 90% of them would like to continue with this regimen.
- Doravirine. **Previous** DRIVE-FORWARD study demonstrated that the next-generation non-nucleoside reverse transcriptase inhibitor (NNRTI) doravirine was non-inferior to boosted darunavir in suppressing HIV viral load and had a better lipid profile. In the DRIVE-AHEAD study, doravirine was coformulated with lamivudine and tenofovir disoproxil fumarate as a single-tablet regimen and was compared to an efavirenz-based coformulation (Atripla). This study demonstrated that doravirine combined regimen worked as well as Atripla in suppressing HIV virus (84% vs 81%) after 48 weeks, but with a more favourable central nervous system side-effect and lipids profiles. It is also active against HIV virus with common NNRTI-resistance mutations including K103N. It has no food restriction and has low potential for drugdrug interactions.





# Membership registration form

Personal details		
Prof/Dr/Mr/Mrs/Miss/Ms Surname:	First	t name:
Present appointment:		
Institution:		
Postal address:		
Email address:@	Pho	one number:
Relevant HIV experience or work:		
Membership category		
Ordinary member: HKD200 per year or HKD2000 life membership   Eligibility: Medical practitioners who practices or are interested in HIV medicine.  Privilege: entitlement to vote, to hold office and to take part in all Society functions.  Associate member: HKD150 per year (no life membership)   Eligibility: Healthcare professionals other than doctors including nurses, pharmacists, medical laboratory technologists, occupational therapists, physiotherapists, clinical psychologists, dietitians who are involved or are interested in HIV medicine.  Privilege: entitlement to take part in all Society functions.  Affiliate member: no fees required   Eligibility: Non-healthcare professionals who are interested in HIV medicine  Privilege: receive news and updates from the Society, and participation in selected activities as decided by the council of the Society  Application proposed by HKSHM member:   Name   Signature   Signature		
Comments and suggestions		
What do you expect from the Society (e.g. benefits, meetings, courses, education fund)?  Any other comments or suggestions for us to work on?		
		Date:

Please email the completed form to Dr Wilson Lam, Hon, Secretary, HKSHM at lwzz04@ha.org.hk

Data protection: Personal data provided by you will be used by the Hong Kong Society for HIV Medicine (HKSHM) only for the purposes of handling your application and activities related to HKSHM. Personal data in the application form, or copies of which, will be disclosed or transferred to parties relevant and necessary for the purposes as stated above only.

