

INFECTION 2019 1 1 J U N E 2 0 1 9

PROGRAM AND ABSTRACTS



Stanley Ho Centre for Emerging Infectious Diseases 何鴻燊防治傳染病研究中心

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Welcome Message from Director of Stanley Ho Centre for Emerging Infectious Diseases

It gives me great pleasure to welcome you to "Infection 2019", the 16th Annual Scientific Meeting of Stanley Ho Centre for Emerging Infectious Diseases (CEID). The annual meeting serves as a scientific platform to discuss and evaluate effective clinical and public health measures for the prevention and control of emerging infectious diseases. We are most grateful to the renowned speakers from France, Japan, Singapore, South Africa, Thailand, Vietnam and our local experts in HK, who are here to address various important hot topics of great interest. On behalf of CEID, I would like to express our heartfelt thanks to all speakers for sharing their broad knowledge and expertise at this meeting.



I would like to welcome all CDC delegates from different provinces of Mainland China and other participants from Japan, Thailand and Macau, who have come to exchange experience and research ideas with us. Our special thanks to our industrial partners for their generous support and encouragement, especially to those that have supported CEID since the first ASM.

I hope you would find the scientific program of the Annual Scientific Meeting and the post conference workshops stimulating. Through this meeting, I hope clinicians, researchers and health professionals can establish good networking and fruitful collaboration.

David Hu

Prof. David SC HUI Stanley Ho Professor of Respiratory Medicine Director, Stanley Ho Centre for Emerging Infectious Diseases

Welcome Message from Chairman of Organizing Committee

Welcome to the 16th Annual Scientific Meeting of the Stanley Ho Centre for Emerging Infectious Diseases (CEID). As in past years, we provide a platform for healthcare professionals, researchers and students to meet each other, exchange knowledge and establish networks. For this 16th meeting, we have invited distinguished experts from basic science, clinical practice, and public health sectors to share their knowledge and hands-on experience in tackling existing as well as emerging infectious diseases. The scientific program is comprised of 4 sessions: Emerging Infections; Antimicrobial Resistance; HIV and Comorbidity; and Vaccine Preventable Childhood Infections. On behalf of the organizing committee, I would like to express our greatest gratitude to all speakers, chairpersons, sponsors and most importantly we are grateful for your participation and continued support.



Wishing you a fruitful and enjoyable day.

Jul CE

Prof. Paul KS CHAN Chairman, Organizing Committee

Organizers, Speakers, Chairpersons, Secretariat

Organizing Committee

- Prof. Paul Kay Sheung CHAN (Chairman)
- Prof. Shui Shan LEE
- Dr. Martin Chi Wai CHAN

- Prof. David Shu Cheong HUI
- Dr. Grace Chung Yan LUI
- Dr. Ngai Sze WONG

Overseas Speakers

Prof. Pierre CORBEAU, Immunology Department, University Hospital of Nîmes, France Prof. Marc MENDELSON, Division of Infectious Diseases & HIV Medicine, University of Cape Town, South Africa

Dr. Charung MUANGCHANA, Former Director, The Thailand National Vaccine Institute (NVI), Thailand Prof. Hiroshi NISHIURA, Graduate School of Medicine, Hokkaido University, Japan Dr. Le Van TAN, Emerging Infections Group, Oxford University Clinical Research Unit, Vietnam Prof. Linfa WANG, Program in Emerging Infectious Diseases, Duke-NUS Medical School, Singapore

Local Speakers

Dr. Chun Bong CHOW, Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Hong Kong

Dr. Joseph Kai Man KAM, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Dr. Grace Chung Yan LUI, Department of Medicine and Therapeutics, CUHK, Hong Kong

Prof. Tony NELSON, Department of Paediatrics, CUHK, Hong Kong

Dr. Ka Hing WONG, Centre for Health Protection, Department of Health, Hong Kong

Dr. Ngai Sze WONG, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Chairpersons

Dr. Chun Bong CHOW, Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Hong Kong

Prof. Margaret IP, Department of Microbiology, CUHK, Hong Kong

Dr. Joseph Kai Man KAM, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Dr. Kin On KWOK, JC School of Public Health and Primary Care, CUHK, Hong Kong

Prof. Shui Shan LEE, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Prof. Ting Fan LEUNG, Department of Paediatrics, CUHK, Hong Kong

Dr. Owen Tak Yin TSANG, Department of Medicine & Geriatrics, Princess Margaret Hospital, Hong Kong Dr. Thomas Ho Fai TSANG, Hong Kong College of Community Medicine, Hong Kong

Secretariat

Ms. Karen LEUNG

• Ms. Shirley YIU

INFECTION 2019 Conference Information

Postgraduate Student Exchange Session

Date & Time: 10 June 2019 (Monday), 11:30am – 3:00pm Venue: Foyer, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong

16th Annual Scientific Meeting

Date & Time: 11 June 2019 (Tuesday), 9:15am – 5:45pm Venue: Shaw Auditorium, 1/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong

Post-Meeting Workshop A - Introduction to Vector Borne Diseases: From Vector Biology to Clinical

Management (Pre-registration required)

Date & Time: 12 June 2019 (Wednesday), 9:00am – 12:30pm Venue: Tutorial Room, 3/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong

Post-Meeting Workshop B – ABC of Research Data Processing (Pre-registration required)

Date & Time: 12 June 2019 (Wednesday), 2:00pm – 5:00pm Venue: Tutorial Room, 3/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong

Secretariat

Stanley Ho Centre for Emerging Infectious Diseases (CEID) 2/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong Telephone: (852) 2252 8812 Fax: (852) 2635 4977 Email: ceid@med.cuhk.edu.hk Website: http://ceid.med.cuhk.edu.hk

Postgraduate Student Exchange Session

10 June 2019 (Monday)

Time: 11:30am - 3:00pm

Venue: Foyer, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong

List of Poster Presentations

No	Authors and Title	Presenting Author
Category	A: Bacterial and Fungal Diseases	
1.	Taishi KAYANO, Ki-Deok LEE, Hiroshi NISHIURA. Estimating the force of infection with <i>Helicobacter pylori</i> in Japan.	Mr. Taishi KAYANO Graduate School of Medicine, Hokkaido University, Japan
2.	Zin MAR HTUN, Thidarat RUJIRAWAT, Pattarana SAE-CHEW, Yothin KUMSANG, Chalisa JATURAPAKTRARAK, Penpan PAYATTIKUL, Tassanee LOHNOO, Wanta YINGYONG, Aree LAIKUL, Watcharapol PATHOMSAKULWONG, Chompoonek YURAYART, Piriyaporn CHONGTRAKOOL, Theerapong KRAJAEJUN. Isolation of the oomycete organism <i>Pythium insidiosum</i> from water reservoirs in Thailand.	Ms. Zin MAR HTUN Department of Microbiology, Faculty of Medicine Siriraj Hospital, Thailand
3.	Wudi WEI, Chuanyi NING, Chase MCCANN , Ngai Sze WONG, Kai Man KAM , Shui Shan LEE, Li YE, Thuy LE, Hao LIANG. Global epidemiology landscapes of <i>Talaromyces marneffei</i> - a systematic review of individual case data.	Mr. Wudi WEI Guangxi Key Laboratory of AIDS Prevention and Treatment, Guangxi Medical University, China
4.	Gang WANG, Wudi WEI, Chuanyi NING, Jing HAN, Jingzhen LAI, Oulu ZHOU, Li YE, Thuy LE, Hao LIANG. <i>Talaromyces marneffei</i> inhibits antifungal functions through affecting M2 polarization mediated by SOCS3-STAT6 and TLR9 pathways in human THP-1 macrophages.	Mr. Gang WANG Guangxi Key Laboratory of AIDS Prevention and Treatment, Guangxi Medical University, China
5.	Unchalee PUANGPRASART, Witchuda KAMOLVIT, Wanatpreeya PHONGSAMART, Chanwit TRIBUDDHARAT, Piriyaporn CHONGTRAKOOL. Molecular epidemiology of invasive <i>Streptococcus pneumoniae</i> serotype 19A in Thailand, 2008-2018.	Ms. Unchalee PUANGPRASART Department of Microbiology, Faculty of Medicine Siriraj Hospital, Thailand
6.	Paramaporn YOUNGDECH, Rattapha CHINLI, Kulkanya CHOKEPHAIBULKIT, Popchai NGAMSKULRUNGROJ, Nadthanan PINCHAI, Suporn FOONGLADDA. Development of Real Time PCR assay for rapid Identification of <i>M. bovis</i> BCG.	Ms. Paramaporn YOUNGDECH Department of Microbiology, Faculty of Medicine Siriraj Hospital, Thailand
7.	Thitiya YUNGYUEN, Amornrut LEELAPORN, Iyarit THAIPISUTTIKUL, Pattarachai KIRATISIN. Prevalence and molecular characterization of carbapenem-resistant <i>E. coli</i> and <i>K. Pneumoniae</i> at a major university hospital in Thailand.	Ms. Thitiya YUNGYUEN Department of Microbiology, Faculty of Medicine Siriraj Hospital, Thailand
8.	Norzuliana Zainal ABIDIN, Mohd Nur Fakhruzzaman NOORIZHAB, Zirwatul Adilah AZIZ, Wai Feng LIM, Richard Johari JAMES, Noorliza Mohd NOORDIN, Hani Mat HUSSIN, Norhayati RUSLI, Zamzurina Abu BAKAR, Farida Zuraina Md YUSOF, Muhammad Hisyam JAMARI, Lay Kek TEH, Norazmi Mohd NOR, Mohd Zaki SALLEH. Genomic-informed initiative on surveillance of MDR-TB in Malaysia.	Ms. Norzuliana Zainal ABIDIN Integrative Pharmacogenomic Institute (iPROMISE), Universiti Teknologi MARA Selangor, Malaysia
Category I	3: Microbiome in Health and Disease	
9.	Yu Ping SONG, Jamie Sui Lam KWOK, Man Fung TANG, Christine TUNG, Renee Wan Yi CHAN, Kin Pong TAO, Gary Wing Kin WONG, Stephen Kwok Wing TSUI, Ting Fan LEUNG. Whole genome shotgun sequencing on nasopharyngeal microbiome in Hong Kong pre-school children with asthma exacerbations.	Ms. Yu Ping SONG Department of Paediatrics, CUHK, Hong Kong
10.	Suwitchaya SIRIMANAKUL, Nopbhawan NA RANGSEE, Kamol SUWANNAKARN, Kwanrutai MAIRIANG, Witchuda KAMOLVIT, Iyarit THAIPISUTTIKUL. Gut	Ms. Suwitchaya SIRIMANAKUL Department of Microbiology, Faculty

microbiome profile in rotavirus A and non-rotavirus A gastroenteritis patients.
 11. Wing Ki YAU, Jinpao HOU, Kit Ching TUNG, Nam Sze CHENG, Kam Lun Ellis HON, Kwok Wing TSUI, Ting Fan LEUNG. Whole metagenomic analysis of skin microbiome in eczematous children with recurrent cutaneous infections and hospitalizations.

Ms. Wing Ki YAU Department of Paediatrics, CUHK, Hong Kong

of Medicine Siriraj Hospital, Thailand

No	Authors and Title	Presenting Author
Category	C: Sexually Transmitted Diseases and HIV	
12.	Tsz Ho KWAN, Shui Shan LEE. Genetic variability and its effect on genetic network construction.	Mr. Tsz Ho KWAN Jockey Club School of Public Health and Primary Care, CUHK, Hong Kong
13.	Zhimin TAN, Jing LI, Xiaobin CHEN, Weibin CHENG, Huifang XU, Hongbo JIANG, Yi YANG. Impact of childhood sexual abuse on risky sexual behaviors among men who have sex with men in Guangzhou.	Ms. Zhimin TAN School of Public Health, Guangdong Pharmaceutical University, China
14.	Yao YAN, Jing LI, Zhi Min TAN, Xiao Bin CHEN, Wei Bin CHENG, Hui fang XU, Yi YANG, Hong Bo JIANG. Prevalence and associated factors of Rush Poppers use among men who have sex with men in Guangzhou, China.	Ms. Yao YAN School of Public Health, Guangdong Pharmaceutical University, China
15.	Kaihao LIN, Jing LI, Zhi Min TAN, Xiao Bin CHEN, Wei Bin CHENG, Hui Fang XU, Yi YANG, Hong Bo JIANG. Prevalence of intimate partner violence victimization and influencing factors among men who have sex with men in Guangzhou, China.	Mr. Kaihao LIN School of Public Health, Guangdong Pharmaceutical University, China
16.	Muhammad Zakwan ZAKARIYA, Winnie DHALIWAL. TB Or Not TB? What is the best methodology for latent tuberculosis detection among HIV Infected population- TST Or IGRA?: a critical review.	Mr. Muhammad Zakwan ZAKARIYA School of Medicine, University of St Andrews, United Kingdom.
Category	D: Viruses and Viral Diseases	
17.	Baoyin YUAN, Hyojung LEE, Hiroshi NISHIURA. Assessing dengue control in Tokyo, 2014.	Mr. Baoyin YUAN Graduate School of Medicine, Hokkaido University, Japan
18.	Jenny CM CHAN, Kirran N MOHAMMAD, Sunny H WONG and Martin CW CHAN. Establishment of three human intestinal enteroid lines to study human norovirus infection.	Ms. Ching Man CHAN Department of Microbiology, CUHK, Hong Kong
19.	Yue JI, Wen SU, Ka Tim CHOY, Hui Ling YEN. Molecular determinants in the hemagglutinin gene associated with the emergence of highly pathogenic avian influenza H7N9 virus in China.	Ms. Yue JI School of Public Health, The University of Hong Kong, Hong Kong
20.	Tetsuro KOBAYASHI, Hiroshi NISHIURA. Reconstructing the epidemic dynamics of measles in Yamagata, Japan, 2017.	Mr. Tetsuro KOBAYASHI Graduate School of Medicine, Hokkaido University, Japan
21.	Sung Mok JUNG, Hyojung LEE, Yichi YANG, Hiroshi NISHIURA. The impact of national health insurance policy for respiratory syncytial virus antigen test on its incidence in Japan: a difference-in-differences study.	Mr. Sung Mok JUNG Graduate School of Medicine, Hokkaido University, Japan
22.	Ruchiraporn SIRIRUNGTHIP, Nopbhawan NA RANGSEE, Bualan KAEWNAPHAN, Thaweesak CHIEOCHANSIN, Popchai NGAMSKULRUNGROJ, Navin HORTHONGKAM, Wannee KANTAKAMALAKUL, Kamol SUWANNAKARN. Molecular epidemiology of norovirus genogroup II among clinical isolates in Siriraj Hospital during 2017.	Mr. Ruchiraporn SIRIRUNGTHIP Department of Microbiology, Faculty of Medicine Siriraj Hospital, Thailand
23.	Xuan ZHONG, Hui WANG, Chun CHEN, Xiaoni ZOU, Tiegang LI. Epidemiological characteristics and influential factors of Hand, Foot, and Mouth Disease reinfection in Guangzhou City, 2012–2017.	Mr. Xuan ZHONG School of Public Health, Guangdong Pharmaceutical University, Guangzhou, China
24.	Banghai LI, Yanhui LIU, Yi YANG, Tiegang LI. Contamination status of avian influenza virus in poultry markets in Guangzhou City, Southern China, 2017-2018.	Mr. Banghai Ll School of Public Health, Guangdong Pharmaceutical University, Guangzhou, China
25.	Natalie LINTON, Hiroshi NISHIURA. Estimation of the effective reproduction number of a measles outbreak in Guinea, 2017.	Ms. Natalie LINTON Graduate School of Medicine, Hokkaido University, Japan
26.	Chun Sang PUN, Hai Chao WANG, Kin Pong TAO, Gar Shun TSUN, Wai Yin YU, Xia Yuan CHEN, Maggie Haitian WANG, Paul Kay Sheung CHAN, Ting Fan LEUNG, Wan Yi Renee CHAN. Understanding the molecular determinant of rhinoviruses in functional group by the virus-genotype to disease-phenotypes association.	Mr. Chun Sang PUN Department of Paediatrics, CUHK, Hong Kong
27.	Leonia Hiu Wan LAU, Ngai Sze WONG, Shui Shan LEE. Influenza vaccine hesitancy among nursing professionals in Hong Kong.	Ms. Leonia Hiu Wan LAU Jockey Club School of Public Health and Primary Care, CUHK, Hong

11 June 2019 (Tuesday)

Time: 9:15am to 5:45pm

Venue: Shaw Auditorium, 1/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong

Time	Event		
9:15-9:30AM	Welcome Note Prof. Shui Shan LEE, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong		
Session I: Emerging Infections Chairpersons: Dr. Joseph Kai Man KAM, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong Dr. Thomas Ho Fai TSANG, Hong Kong College of Community Medicine, Hong Kong			
9:30-10:00AM	Latest Situation of Selected Infections of Concern in Hong Kong Dr. Ka Hing WONG, Centre for Health Protection, Department of Health, Hong Kong		
10:00-10:30AM	Bat and Emerging Infections Prof. Linfa WANG, Program in Emerging Infectious Diseases, Duke-NUS Medica School, Singapore		
10:30-11:00AM	Next-Generation Sequencing in Emerging Infections Dr. Le Van TAN, Emerging Infections Group, Oxford University Clinical Research Unit, Vietnam		
11:00-11:30AM	Tea Break		
Session II: Antimicrobial Resistance Chairpersons: Dr. Kin On KWOK, JC School of Public Health and Primary Care, CUHK, Hong Kong Prof. Margaret IP, Department of Microbiology, CUHK, Hong Kong			
11:30AM-12:00NN	30AM-12:00NN The Critical Role of Infection Prevention in Mitigating Antibiotic Resistance Prof. Marc MENDELSON, Division of Infectious Diseases & HIV Medicine, University of Cape Town, South Africa		
12:00NN-12:30PM	12:00NN-12:30PMCRE: From Development to Loss of Resistance Dr. Joseph Kai Man KAM, Stanley Ho Centre for Emerging Infectious Diseases CUHK, Hong Kong		
12:30-1:30PM	Lunch		

Session III: HIV and Comorbidity Chairpersons: Prof. Shui Shan LEE, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong Dr. Owen Tak Yin TSANG, Department of Medicine & Geriatrics, Princess Margaret Hospital, Hong Kong			
1:30-2:00PM	Immune Activation in HIV Patients Aviraemic Under Treatment: Causes, Types, and Consequences Prof. Pierre CORBEAU, Immunology Department, University Hospital of Nîmes, France		
2:00-2:30PM	HIV Infection and Aging Dr. Grace Chung Yan LUI, Department of Medicine and Therapeutics, CUHK, Hong Kong		
2:30-3:00PM	Should Repeat LTBI Screening be Performed in HIV Patients Dr. Ngai Sze WONG, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong		
3:00-3:30PM	Tea Break		
Chairpersons: Prof. Ting Fan LEUNG, Department of Paediatrics, CUHK, Hong Kong Dr. Chun Bong CHOW, Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Hong Kong			
3:30-4:00PM	19 Prof. Hiroshi NISHIURA, Graduate School of Medicine, Hokkaido University, Japan		
4:00-4:30PM The Journey of Measles Elimination in Hong Kong – Are We There? Dr. Chun Bong CHOW, Scientific Committee on Vaccine Preventable Dis Centre for Health Protection, Hong Kong			
4:30-5:00PM Content 4:30-5:00PM Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content Content			
5:00-5:30PM	Influenza Vaccination for Children – What Are the Challenges? Prof. Tony NELSON, Department of Paediatrics, CUHK, Hong Kong		
5:30-5:45PM	Closing Remarks Prof. Shui Shan LEE, Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong		

Post-Meeting Workshop A Introduction to Vector Borne Diseases: From Vector Biology to Clinical Management

Faculty	Mr. Ming Chi YUEN, Dr. Joseph Kai Man KAM Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong		
Medium of instruction	English		
Date & Time	12 June 2019 (Wednesday) 9:00AM – 12:30PM		
Venue	Tutorial Room, 3/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong		
Content	Common vector borne diseases will be covered, including malaria, dengue, Zika, Japanese encephalitis, plague, Hantan, tick/mite borne fevers. Vector biology with emphasis on practical approaches to prevention and control strategies will be discussed.		
Remarks	Participants are expected to have some background in biology, otherwise no prior specialised knowledge is required.		

* Separate and prior registration is required for participation.

Post-Meeting Workshop B ABC of Research Data Processing

Faculty	Dr. Ngai Sze WONG Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong	
Medium of Instruction	of Instruction English/ Cantonese	
Date & Time	12 June 2019 (Wednesday) 2:00PM – 5:00PM	
Venue	Tutorial Room, 3/F, School of Public Health Building, Prince of Wales Hospital, Shatin, Hong Kong	
Content	•Getting around Excel •Understanding data type •Data integration, transformation, and manipulation •Getting summary and calculating data for reports •Formatting, and generating graphs	
Remarks	Bring your own laptop with Excel installed.	

* Separate and prior registration is required for participation.

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TRUVADA Abbreviated Prescribing Information (Version: HK-SEP16-US-MAR16) Presentation: Film-coated tablet containing 200 mg of entricitabine and 300 mg of tenofovir disoproxil fumarate. Indications: In combination with other antiretroviral agents for treatment of HIV-1 infection in adults and in combination with safer sex practices for pre-exposure prophylaxis (PrEP) to reduce the risk of sexually acquired HIV-1 in adults at high risk. Dosage: Adults: One tablet once daily taken orally with or without food. Renal impairment: TRUVADA should not be administered in patients with creatinine clearance 3:0 mL/min. The dosing interval of TRUVADA should be adjusted in patients with baseline creatinine clearance 30-49 mL/min according to recommendations in Package Insert. Pre-exposure Prophylaxis: Do not use in HIV-1 uninfected individuals with estimated creatinine clearance below 60 mL/min. Routine monitoring of estimated creatinine clearance, serum phosphorus, urine glucose, and urine protein should be performed in all individuals with estimated creatinine clearance below 60 mL/min. Routine monitoring of estimated creatinine clearance, serum phosphorus, urine glucose, and urine protein should be performed in all individuals with mild renal impairment. If a decrease in estimated creatinine clearance is observed in uninfected individuals with using TRUVADA for PFE evaluate potential causes and re-assess potential risks and benefits of continued use. Contraindications: Do not use TRUVADA for pre-exposure prophylaxis in individuals with unknown or positive HIV-1 status. TRUVADA should be used in HIV-infected patients only in combination with other antiretroviral agents. Warnings and Precautions: Lactic acidosis/severe hepatomegaly with steatosis; HBV infection; New onset or worsening renal impairment; Coadministration a prefe indication must only be prescribed to individuals confirmed to be HIV-negative infection syndrome; Early virologic failure; Use TRUVADA for pre-exposure prophylaxis only as part of a compr

Neterances: 1. TRVVADA Hong Kong prescribing information (HK-SEP16-US-MAR16), 2. Baeten JM, et al. N Engl J Med 2012;367:399-410. 3. Grant RM, et al. N Engl J Med 2010;363:2587-2599, 4. Centers for Disease Control and Prevention. Preexposure prophylaxis for the prevention of HIV infection in the United States—2014: a clinical practice guideline. http://www.cdc.gov/hiv/pdf/prepguidelines2014.pdf. Published 2014. Accessed May 8, 2017. 5. World Health Organization. Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach. 2nd ed. http://www.who.int/ hiv/pub/ar/var/v21016/er/. Published June 2016. Accessed May 8, 2017. 6. Marrazo JM, et al. JAMA, 2014;312:309-409, 7. Günthard HF, et al. JAMA 2016;316:191-210. 8. The American College of Obstetricians and Gynecologists Committee on Gynecologic Practice. Obstet Gynecol 2014;123:1133-1136.

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Session I

Emerging Infections

Chairpersons:

Dr. Joseph Kai Man KAM Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Dr. Thomas Ho Fai TSANG Hong Kong College of Community Medicine, Hong Kong

Speakers:

Dr. Ka Hing WONG Centre for Health Protection, Department of Health, HK

Prof. Linfa WANG Program in Emerging Infectious Diseases, Duke-NUS Medical School, Singapore

Dr. Le Van TAN Emerging Infections Group, Oxford University Clinical Research Unit, Vietnam

Latest Situation of Selected Infections of Concern in Hong Kong

Biography:

Dr. Ka Hing WONG graduated from the Faculty of Medicine of the University of Hong Kong in 1988. He is currently the Controller, Centre for Health Protection (CHP) of the Department of Health (DH), the Government of the HKSAR. CHP is a professional arm of DH for disease prevention and control, equivalent to CDC in many localities. Dr. Wong has prior served as Head of AIDS service in DH from 2005 to 2016, working on patient clinical management, public health control and policy support. Dr. Wong is a fellow of the Hong Kong Academy of Medicine, fellow of Royal College of Physicians and Surgeons of Glasgow, fellow of Royal College of Physicians of Edinburgh and fellow of UK Faculty of Public Health. He has published over 100 peer-reviewed papers, mostly on HIV, viral hepatitis and related areas.



Dr. Ka Hing WONG

Abstract:

Despite heightened efforts in prevention and control over the years, emerging and re-emerging infectious diseases are still posing major threats to the global and local community nowadays. The latest situation and epidemiology of selected infections of public health concern will be highlighted in the presentation.

Seasonal influenza poses a significant burden to our healthcare system especially during influenza seasons. The government has enhanced the seasonal vaccination programs in the 2018/19 season including a pilot on outreach vaccination in primary schools. Surveillance data revealed that outreach vaccination could decrease the occurrence of outbreaks of influenza-like illness in schools. Due to the abundance of Aedes albopictus in Hong Kong, the risk of local transmission of mosquito-borne diseases exists. An unprecedented local outbreak of dengue fever occurred in August 2018. With prompt and intensive anti-mosquito measures, the outbreak was successfully controlled. We are also facing the threat of importation of diseases with potential local spread. The global upsurge of measles and the recent local measles outbreak in 2019 exemplified that measles could cause outbreak among pockets of susceptible populations in areas with elimination of measles. Moreover, there has been an upsurge of pertussis in Hong Kong and overseas countries in recent years and the control may require updated vaccination strategy.

To face up to the challenges of communicable diseases, the Centre for Health Protection will continue to work closely with international as well as neighboring health authorities, healthcare and community partners to protect and promote the health of Hong Kong people through real-time surveillance, rapid intervention and risk communication. MBBS, FHKAM

Controller, Centre for Health Protection, Department of Health, Hong Kong

Bat and Emerging Infections

Biography:

Prof. Linfa WANG is the director of the Program in Emerging Infectious Diseases at Duke-NUS Medical School, Singapore. He is an international leader in the field of emerging zoonotic viruses and virus-host interaction. He was a member of the WHO SARS Scientific Research Advisory Committee, and played a key role in identification of bats as the natural host of SARS-like viruses. He has over 380 publications including papers in Nature, Science, Nature Review in Medicine and Nature Review in Microbiology with a current h-index of 75. He is the Editor-in-Chief for the open access Virology Journal. In 2010, Prof Wang was elected to the Australian Academy of Technological Sciences and Engineering.

Abstract:

Since the discovery of Hendra virus in Australia in 1994, bats have been implicated as an important reservoir of many high-impact emerging zoonotic viruses including Nipah, SARS, MERS, Marburg and Ebola viruses. Several studies have recently demonstrated that bats are special as virus reservoir in two aspects: 1) they harbor more viruses than any other mammalian order (including rodents); and 2) they are able to co-exist asymptomatically with a large number of different viruses, some of which are highly lethal in other mammalian hosts. Our group has been researching into the question on "what makes bats special?" and made several discoveries which may help to explain bats' special ability to maintain an effective balance between defense/resistance and tolerance. We hypothesize that their special ability to response to stresses (such as DNA damage and infection) is driven by bats' adaptation to flight since their divergence from land mammals approximately 100 million years ago. A brief review of our latest findings will be presented in the context of immune balance and viral infections.



Prof. Linfa WANG

PhD

Professor, Director of Program in Emerging Infectious Diseases, Duke-NUS Medical School, Singapore

Next-Generation Sequencing in Emerging Infections

Biography:

Dr. Le Van TAN's research interests are emerging infections, including Hand, Foot and Mouth Disease, pathogen discovery and novel diagnostics in patients with severe infections as brain infections. Since 2013, he is a member of the Wellcome Trust Fellows. His Training Fellowship (2013–2017) aimed to study molecular epidemiology of Hand, Foot and Mouth Disease in Vietnam and its implication for vaccine development and implementation. Currently, he holds a Wellcome Trust Intermediate Fellowship (2017–2022) to study the translational potential of new technologies such as mass spectrometry and next-generation sequencing in patients with brain infections in Vietnam, and an NIH funding support to explore novel cause(s) of sepsis in Southeast Asia.

As an independent investigator, his aim is to develop local and national expertise within Vietnam and the wider region so that ongoing and future emerging infectious disease challenges can be addressed from within the affected regions and communities.

Abstract:

Asia is highly susceptible to emerging infections as illustrated by the emergence of avian influenza virus H5N1, SARS-CoV, Nipah virus and enterovirus A71. As such, active surveillance for novel viral pathogens and improving our knowledge of the transmission dynamics of these emerging infectious diseases are of clinical importance and public health significance.

Over the last decade, next generation sequencing technology has emerged as a powerful tool for sequence-independent detection of both known and unknown viruses in clinical samples, providing useful sequence information for investigations aiming at documenting the origin and spread of emerging pathogens within and between localities over time.

In this seminar, I will discuss the results obtained from our current emerging infections research program in Vietnam, focusing on pathogen discovery, and the evolutionary aspects of Hand, Foot and Mouth Disease causing pathogens (enterovius A71 and coxsackievirus A6).



Dr. Le Van TAN

PhD, Wellcome Trust International Intermediate Fellow

Head, Emerging Infections Group, Oxford University Clinical Research Unit, Vietnam



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Session II Antimicrobial Resistance

Chairpersons:

Dr. Kin On KWOK JC School of Public Health and Primary Care, CUHK, Hong Kong

Prof. Margaret IP Department of Microbiology, CUHK, Hong Kong

Speakers:

Prof. Marc MENDELSON Division of Infectious Diseases & HIV Medicine, University of Cape Town, South Africa

Dr. Joseph Kai Man KAM Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

The Critical Role of Infection Prevention in Mitigating Antibiotic Resistance

Biography:

Prof. Marc MENDELSON is Professor of Infectious Diseases and Head of the Division of Infectious Diseases & HIV Medicine at Groote Schuur Hospital, University of Cape Town. He is Chair of the South African Ministerial Advisory Committee on Antimicrobial Resistance and co-founder of the South African Antibiotic Stewardship Program. His interests lie in national and international policy development on AMR and building antibiotic stewardship models in low-resource settings. Marc works with WHO on a number of its AMR technical advisory panels and is a member of the Scientific Advisory Committee of the Global Antibiotic Research and Development Partnership (GARDP). He is past-president of the Federation of Infectious Diseases Societies of Southern Africa, and the current president of the International Society for Infectious Diseases (ISID).



Prof. Marc MENDELSON

BSc, MBBS, PhD, FRCP, DTM&H

Professor of Infectious Diseases, Division of Infectious Diseases & HIV Medicine, University of Cape Town, South Africa

Abstract:

As a complex, multifaceted public health problem, addressing the global crisis of antibiotic resistance requires an equally expansive set of interventions with respect to its different, yet interconnected components. The seemingly direct relationship between levels of antibiotic consumption and antibiotic resistance in high-income countries has focused efforts on optimizing the use of currently available antibiotics i.e., antibiotic stewardship, and on research and development of new or re-purposed antibiotics to re-invigorate the antibiotic pipeline. While critical interventions in themselves, they do not address the underlying need to prevent infection in the first place, thereby negating antibiotic use. Infection burden falls heaviest on low- and middle-income countries (LMICs), and a recent ecological study has suggested that infection prevention may result in the greatest bang for buck in mitigating antibiotic resistance in LMICs. Similarly, infection prevention and control (IPC) in healthcare facilities, has often been underplayed relative to the need to perform antibiotic stewardship, despite antibiotic stewardship programs being demonstrably more effective if coupled to IPC interventions. This presentation will focus on advances in our understanding of the critical role of infection prevention in mitigating antibiotic resistance and the interventions that are required to make a positive impact, both now and in the future.

20

CRE: From Development to Loss of Resistance

Biography:

Dr. Joseph Kai Man KAM joined the Stanley Ho Centre for Emerging Infectious Diseases in 2015. He obtained his Diplomate in American Board of Medical Microbiology, and then worked extensively in different medical and public health laboratories. He had served in the editorial boards of Journal of Clinical Microbiology and the Federation of European Microbiological Societies (FEMS) Immunology and Medical Microbiology.

He conducts teaching in clinical and public health microbiology at undergraduate and postgraduate levels. He has served as external consultant to national and international organizations for laboratory capacity building (in planning, design, training, monitoring) and continuous quality improvement.

Dr. Joseph Kai Man KAM

Abstract:

Failure in clinical response when using carbapenems in treatment of serious infections alerted the physician, microbiologist (and sometimes the patient) to consider development of resistance. As the carbapenems constitute one of our last lines of defenses against bacterial invasion into human body, the discussion of whether and how these "superbugs" could arise led to many hypothesis, including finger-pointing the general misuse/abuse of antibiotics, and then the reluctance of pharmaceutical industry in development of newer drugs when only marginal (or no) monetary benefits were expected. From the scientific angle: when the emergence of these resistances are examined more carefully, the basis of mechanisms/spectrum and characteristics led to better understanding of behavior of these bacterial resistance. In particular, plasmidbased resistances have their peculiar forms and manifestations. The NDM and OXA enzyme producers became classic examples to follow. These can be detected fairly easily in most routine laboratories, including use of both phenotypic and/or genotypic methods. How these resistance determinants can be cured from the bacteria have also been known. On the other hand, the ecological impact from and to these plasmid-mediated resistances are less well studied, especially in a clinical setting. There are now only few alternative options for the clinician when carbapenem resistance develops. This means that a better understanding of the natural evolution and behavior of them is of paramount importance.

MB, BS, FRCPath

Clinical Associate Professor (Honorary), Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

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References: 1. Cahn P et al. Presented at: International AIDS Conference; July 23-27, 2018; Amsterdam, Netherlands. 2. Tivicay Hong Kong Prescribing Information 2017. 3. 3TC Hong Kong Prescribing Information 2017.

ARV, antiretroviral: DTG, dolutegravir



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IV HEALTHCARE IN HIV

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Session III HIV and Comorbidity

Chairpersons:

Prof. Shui Shan LEE Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Dr. Owen Tak Yin TSANG Department of Medicine & Geriatrics, Princess Margaret Hospital, Hong Kong

Speakers: Prof. Pierre CORBEAU *Immunology Department, University Hospital of Nîmes, France*

Dr. Grace Chung Yan LUI Department of Medicine and Therapeutics, CUHK, Hong Kong

Dr. Ngai Sze WONG Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Immune Activation in HIV Patients Aviraemic Under Treatment: Causes, Types, and Consequences

Biography:

Prof. Pierre CORBEAU performed his medical internship at the University Hospitals of Montpellier and Marseille in Cancerology, Infectious Diseases, Rheumatology and Immunology. He was Assistant Hospitalier-Universitaire and Maître de Conférence des Universités-Praticien Hospitalier at the University Hospital of Montpellier. He is currently Professor of Medicine and Head of the Immunology Department at the University Hospital of Nîmes.

He got his Master degree and worked for his PhD at the Marseille-Luminy Center for Immunology. He had postdoctoral scholarships at the Pasteur Institute, at the Institute of Cancer Research, University of London, UK, and at the University of California, San Diego, USA. He is currently Head of a Research Group at the Institute for Human Genetics, CNRS UPR1142 at Montpellier.

He has taught in various Universities in France, for the Canadian Mentorat on HIV and at the University of California, San Diego, USA.

He has worked as an MD and a researcher from the beginning on HIV infection. He has studied HIV coreceptors and is now focusing on the immune activation in people living with HIV.

Prof. Pierre CORBEAU

MD, PhD

Head of University Hospital Department, Immunology Department, University Hospital of Nîmes, France

Abstract:

Immune activation in the course of HIV infection is strongly linked to and predictive of immune deficiency and comorbidities such as neurocognitive disorders, metabolic syndrome, osteoporosis, atherosclerosis, liver steatosis, frailty and some types of cancers. Many arguments are in favor of a causative link, but the nature of this link is poorly understood. Antiretroviral therapies reduce but do not abolish this immune activation, and its consequences are nowadays a major concern.

In an effort to better understand how various causes (residual viral production, microbial translocation, coinfections, immune senescence, metabolic disorders, and Treg deficiency) may fuel persistent immune activation, and how immune activation may drive comorbidities, we analyzed 68 markers of immune activation in over 120 patients aviremic under treatment. We have shown by a double hierarchical clustering that these patients present with different immune activation profiles. Of note, one of these profiles was linked to marks of microbial translocation, whereas another one was linked to residual viremia. In addition a third immune activation profile was strongly correlated with insulin resistance. Thus, our data fit with a model where certain causes of immune activation profiles might fuel specific comorbidities.

Deciphering the links between immune activation and comorbidities will help us to identify predictive markers, pathophysiological mechanisms, and potentially new therapeutic targets not only in HIV infection but in any situation of chronic immune activation, including aging.

HIV Infection and Aging

Biography:

Dr. Grace Chung Yan LUI is Assistant Professor and Head of the Division of Infectious Diseases at The Chinese University of Hong Kong. She also serves as Honorary Associate Consultant at the Prince of Wales Hospital and Queen Elizabeth Hospital. She is a member of the HK Advisory Council on AIDS, and the Scientific Committee on AIDS and STI. Her major research interests include comorbidities and aging in people living with HIV, and prevention of HIV infection.

Abstract:

With the availability of effective and durable anti-retroviral therapy, people living with HIV (PLWH) are having life expectancy approaching that of the general population. The number of older PLWH is rising rapidly in both developed and resource-limited countries. Due to a constellation of factors, including persistent inflammation and immune activation states induced by the chronic viral infection, anti-retroviral drugs, and lifestyle factors, there is evidence that HIV-infected individuals suffer from accentuated aging. PLWH have increased risk of developing multiple age-related comorbidities, such as cardiovascular diseases, diabetes, chronic kidney disease and osteoporosis. Importantly, these comorbidities often occur approximately 10 years earlier than those who are not infected with HIV. HIV infection and these other chronic diseases potentiate chronic inflammation and immune activation, causing higher risk of end-organ dysfunction and mortality. The presence of these comorbidities adversely affects the long-term health outcomes of the aging population of PLWH. Healthy ageing is increasingly being recognized to be important in maintaining the well-being in the older general population. Healthy aging is not merely the lack of diseases, but developing and maintaining the intrinsic capacity and functional ability that enables well-being. Supporting PLWH for healthy aging is of paramount significance in this population. The goal of healthy aging is regarded by some as the fourth "90" target in the HIV care continuum. More research should be directed towards understanding the status of health of the ageing population of PLWH and more effective monitoring and intervention strategies in achieving healthy ageing for this population.



Dr. Grace Chung Yan LUI

MbChB (Hons.), MRCP (UK), FHKAM (Med), FRCP (Edinburgh)

Assistant Professor, Department of Medicine and Therapeutics, CUHK, Hong Kong

Should Repeat LTBI Screening be Performed in HIV patients

Biography:

Dr. Ngai Sze WONG is a Research Assistant Professor of Stanley Ho Centre for Emerging Infectious Diseases, The Chinese University of Hong Kong. Her main research interests include immunological recovery following treatment in HIVinfected individuals, development of interventions for epidemic control of HIV, sexually transmitted infections, tuberculosis and hepatitis, and understanding the spatial epidemiology of infectious diseases. She is currently the Academic Editor of PlosOne, and a reviewer of 8 journals. She is maintaining two websites, one for enhancing community engagement in influenza-like-illnesses surveillance (www.EcSS.hk), and one for sharing public health stories through maps generated by her Research Team (www.SpatioEpi.com).



Dr. Ngai Sze WONG

PhD, MPhil, BSSc

Research Assistant Professor , Stanley Ho Centre for Emerging Infectious Diseases, CUHK, Hong Kong

Abstract:

With 26-fold higher risk of tuberculosis (TB) reactivation in HIV-infected individuals than HIV negative individuals, latent TB infection (LTBI) screening is an important intervention to reduce reactivation risk. However, there has been a declining TB incidence in HIV patients and an increasing proportion of HIV patients with satisfactory CD4 level after immediate antiretroviral therapy (ART) in Hong Kong. TB reactivation risk is likely to drop along with ART coverage expansion. The current LTBI testing strategy is annual repeat LTBI testing until positive test results or active TB diagnosis in HIV patients in Hong Kong. It is time to revisit current testing strategy, under the principle of less is more. With retrospective access to the longitudinal clinical data of HIV patients attending a major HIV clinic in Hong Kong, the factors associated with TB disease development after HIV diagnosis was examined. Baseline LTBI testing results was one of the main predictors of TB incidence, but no similar association was observed for subsequent LTBI testing. In mathematical modelling and cost-effectiveness analysis, comparing with the current annual repeat testing strategy, less intense testing strategies are likely to be more effective and cost-effective, when the coverage of LTBI testing and treatment is expanded.

Session IV Vaccine Preventable Childhood Infections

Chairpersons:

Prof. Ting Fan LEUNG Department of Paediatrics, CUHK, Hong Kong

Dr. Chun Bong CHOW Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Hong Kong

Speakers:

Prof. Hiroshi NISHIURA Graduate School of Medicine, Hokkaido University, Japan

Dr. Chun Bong CHOW Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Hong Kong

Dr. Charung MUANGCHANA Former Director, The Thailand National Vaccine Institute (NVI), Thailand

Prof. Tony NELSON Department of Paediatrics, CUHK, Hong Kong

Real Time Modeling Research Response to Rubella Epidemic in Japan, 2018-19

Biography:

Since 2016, Prof. Hiroshi NISHIURA has served as a full professor at the Graduate School of Medicine, Hokkaido University, Japan. While he was brought up and licensed in Japan, he has been cosmopolitan-minded, having worked for different infectious disease modeling groups at Imperial College London, University of Tuebingen, Germany, University of Utrecht, The Netherlands and the University of Hong Kong, before returning to Japan in 2013. His research interests span the areas of statistical epidemiology of infectious diseases, epidemiological modeling and biomathematical formulation of the transmission dynamics of infectious diseases. He aims to answer policy-relevant questions by integrating various mathematical models with empirically observed data. A common thread in his research is an understanding of the epidemiological dynamics underlying empirically observed data.



Prof. Hiroshi NISHIURA

MD, PhD

Professor, Graduate School of Medicine, Hokkaido University, Japan

Abstract:

From 2012–2013, Japan experienced a major epidemic of rubella, involving a total of 12,614 rubella cases and 45 confirmed cases of congenital rubella syndrome (CRS). One of the contributory factors in this outbreak may have been that the majority of adult males remained unvaccinated. To plan for a supplementary immunization program (SIP) to elevate the herd immunity level, it is critical to determine the required amount of vaccine and identify the target age groups among males for the SIP. The present study aimed to answer these policy questions, employing a mathematical model and analyzing epidemiological datasets from 2012-2013. Our model allowed us to reconstruct the age- and sex-dependent transmission patterns, and the effective reproduction number during the exponential growth phase in 2013 was estimated to be 1.5. The computed next-generation matrix indicated that vaccinating adult males aged from 20-49 years in 2013, using at least 17 million doses, was considered essential to prevent a major epidemic in the future. The proposed model also indicated that, even with smaller doses of vaccine, the SIP in adult males could lead to a substantial reduction in the incidence of rubella, as well as CRS. Importantly, the present study endorses a substantial background risk of observing another major epidemic from 2018–2019, which may be dominated by adult males aged from 25–54 years, that is, our identified age groups plus a five-year time lag from 2013 to 2018.

The Journey of Measles Elimination in Hong Kong – Are We There?

Biography:

Dr. Chun Bong CHOW is Honorary Clinical Professor of the Department of Paediatrics, The University of Hong Kong. He is also Honorary Consultant of the Hospital Authority Infectious Disease Centre (HAIDC) at Princess Margaret Hospital and Honorary Consultant Paediatrician at Princess Margaret Hospital. He is the Founding President of The Hong Kong Society of Neonatal Medicine and Inborn Error of Metabolism. He serves on various boards in the community including Chairman of the Scientific Committee on Vaccine Preventable Diseases, Chairman of National Verification Committee for Measles Elimination in Hong Kong. Dr Chow is also Chairman Playright Children's Play Association, Hong Kong Childhood Injury Prevention and Research, Vice-chairman of Hong Kong Committee on Children's Right. He is also Director of Kwai Tsing and Tsuen Wan Safe Community and Healthy City Associations and has been involved in community safety and health promotion at community level. He also pioneered the Comprehensive Child Development Service for high risk pregnancies in Kowloon West Cluster and started a QK Blog project for high risk secondary school students and a GIS injury surveillance system at Kwai Tsing District.

Dr. Chow has authored over 200 original articles, abstracts and chapters in books on paediatrics and infectious diseases. He has actively promoted various research works including childhood injury surveillance and intervention, adolescent health, early child development and child abuse, obesity and physical activity; intra-uterine growth in Chinese infants, physical health status of new immigrant children from mainland China, growth parameters in Down syndrome children; safe community and healthy city, child policy and play.



Dr. Chun Bong CHOW

MBBS(HK), MD, FHKCPaed, FHKAM, FRCPCH, FRCP, DCH

Chairman, Scientific Committee on Vaccine Preventable Diseases, Centre for Health Protection, Hong Kong

Abstract:

In the pre-vaccination era, the annual notification rate of measles in Hong Kong was high. Anti-measles vaccine (AMV) was first introduced in 1967. The last major measles outbreak in Hong Kong occurred in 1988 when 3,162 cases (incidence rate of 561.9 per million population) and 8 deaths were recorded. In 1990, a combined Measles, Mumps and Rubella (MMR) vaccine was introduced into the Childhood Immunisation Program (CIP), replacing the AMV. A second dose of MMR was introduced to all children in primary six in 1996 and since 1997, the schedule of the second dose has been changed to primary one to shorten the gap between the two doses. In 1997, in view of waning immunity in those immunized, a supplemental vaccination campaign was launched for those aged below 20 years. Currently CIP consists of a two-dose schedule of MMR vaccine provided free for children at one year old and primary one (about six years old). Supplementary mop-up immunization for primary six students who have not completed the two-dose series of MMR is being carried out yearly. Coverage rate for MMR vaccine is constantly maintained at above 98%.

The annual measles incidence after excluding imported cases dropped from 4.7 per million population in 2008 gradually down to < 1 per million population between 2008 and 2016. In 2016, Hong Kong was verified by WHO Western Pacific Region to have achieved measles elimination status. However, Hong Kong is still surrounded by countries where measles outbreaks still occur resulting in imported case and potential spread. Since 2017, there was dramatic increase in measles cases around the world. The recent outbreak at the Hong Kong airport raised an alarm for us to look closely on vaccination gaps and immunity gaps in Hong Kong. Ensuring high vaccine coverage is essential. Close monitoring of overseas measles outbreaks, continue case-based surveillance, monitoring the patterns and rates of vaccine exemption, identifying clusters of susceptible (new immigrants, and workers from overseas) are essential. The second dose of MMRV will be advanced to 18 months from 6 years in 2020 that children will achieve higher measles immune status at an earlier age.

Rota Vaccine Introduction in Thailand National Program

Biography:

Dr. Charung MUANGCHANA is a graduate of Bloomberg School of Public Health, Johns Hopkins University (JHU), Baltimore, USA (2007), for International Health (Disease Prevention and Control; Vaccine Science and Policy as well as Economic Evaluation on Health) for his PhD, and of Siriraj Hospital, Mahidol University, Thailand (1990) for his MD. He is a field epidemiologist by training from the Ministry of Public Health (Field Epidemiology Training Program: FETP). He got many publications on international and domestic peer reviewed journals on a variety of health issues, including vaccine and immunization. He has been a director of the National Vaccine Institute (NVI) Thailand between 2007 and 2019. The NVI is a new institute at national level to coordinate national vaccine policy and strategy. The NVI aims to promote vaccine research and development as well as policy development on immunization in the country, which Thailand has high capacity on vaccine development and production. Before joining the NVI he worked as a medical practitioner and director of community hospitals in Southern Thailand. His proposal on Vaccine Security and Self-reliance on vaccine has been accepted and included as ASEAN agenda.



Dr. Charung MUANGCHANA

MD, MPH, PhD, Board of Preventive Medicine (Epidemiology)

Former Director, The Thailand National Vaccine Institute (NVI), Thailand

Abstract:

Rotavirus is the most common cause of severe diarrhea in infants and young children worldwide. WHO recommended that rotavirus vaccines should be included in all national immunization programs and considered it a priority, particularly in countries with high RVGE-associated fatality. Thailand, among few countries in Asia, has a plan to introduce rotavirus vaccine into the expanded program on immunization(EPI) in 2020, after a long considering process and pilot implementing to determine its cost-effectiveness for use among the target group. The presentation will focus on rotavirus illness, disease burden, and how the decision to introduce rotavirus vaccine into Thailand's routine schedule was made.

Influenza Vaccination for Children – What Are the Challenges?

Biography:

Prof. Tony NELSON has published widely on vaccine-preventable diseases, infant and child nutrition, and the sudden infant death syndrome. He has conducted studies on respiratory and diarrheal disease surveillance; influenza and rotavirus vaccine effectiveness; and rotavirus vaccine economic evaluations. He chairs the Steering Committee of Immunization Partners in Asia Pacific that organize the biennial Asian Vaccine Conferences. He is a member of the ROTA Council (2012-). He was a member of the Scientific Committee on Vaccine Preventable Diseases (2004-2013) in Hong Kong; participated in WHO's SAGE Working Group on Maternal and Neonatal Tetanus Elimination and Broader Tetanus Control (2015-2016); WHO's Expert Advisory Group on Quantitative Immunization and Vaccines Related Research (2007-2012); and was a technical advisor for the Supporting Independent Immunization and Vaccine Advisory Committees Initiative (2008-2011). Tony graduated from the University of Cape Town in South Africa in 1978 and obtained his doctorate from the University of Otago in New Zealand in 1989.



Prof. Tony NELSON

MBChB, MD

Clinical Professional Consultant and Professor in Paediatrics , Department of Paediatrics, CUHK, Hong Kong

Abstract:

Hong Kong has a very high burden of influenza hospitalization for young children. 4.3% of admissions aged >6d to <18y to Hospital Authority (HA) hospitals during 2005 to 2011 had a primary or secondary ICD diagnosis of influenza (ICD 487 - 487.99). Unadjusted incidence rates per 100,000 person-years based on any ICD diagnosis of influenza were 627 (<2 months); 1762 (2

to <6m); 1677 (6 to < 12m); 1408 (1 to <2y); 1081 (2 to <5y); 409 (5 to <10y); 137 (10 to <14y); and 81 (14 to <18y). Linkage to laboratory data showed that these already high incidence rates were likely significantly underestimated due to under-testing and under-coding. A 'test-negative' case-control study in five HA hospitals during 2015 to 2016 showed influenza vaccine effectiveness was 64% (95% CI: 46%, 75%) to 68% (95% CI: 55%, 77%) in children 6m to <6y. This study also evaluated a simple record form to collect upon admission information on influenza vaccination status that could facilitate real-time monitoring of vaccine effectiveness. Since 2008, the Centre for Health Protection has introduced a scheme (Vaccination Subsidy Scheme, VSS) which has encouraged children 6m to <6y (from 2008/09), children from 6m to <12y (from 2016/17) and pregnant women (from 2016/17) to receive seasonal influenza vaccination from registered private doctors. Although current rates are not available, influenza vaccine uptakes in children (6m-2y: 15% and 2y-<5y: 18%) and pregnant women (1.7%-6.2%) have been low in recent years. These low coverage rates compare to rates of >95% for vaccines included in Hong Kong's universal Childhood Immunisation Program (CIP). In 2018 a school outreach vaccination pilot program in primary schools and child care centres was launched which appears to have achieved higher coverage. In 2019 the outreach pilot program will be extended to kindergartens and child care centres. An intervention package comprising concise information, semi-completed consent forms, practitioner contact details and reminders improved influenza vaccine uptake through the VSS in Hong Kong children by 25% in children aged 6m to 2y and, depending on vaccine effectiveness, could potentially reduce influenza-associated hospital admissions by 13% to 24%. However it is likely that even higher coverage could be obtained if influenza vaccine can be included in the CIP. The World Health Organization recommends vaccination of pregnant women for seasonal influenza to protect both the mothers and their infants below 6m. Inclusion of influenza vaccination into routine antenatal care in Hong Kong would also be anticipated to increase vaccine coverage in this high priority group.

Professional Accreditations

Registered participants are entitled to Continuing Medical Education (CME) and Continuing Nursing Education (CNE) credit points from the following professional organizations:

Name of College	11 June Meeting	12 June Workshop A (9:00am - 12:30pm)	12 June Workshop B (2:00pm - 5:00pm)	Accreditation Category
Hong Kong College of Community Medicine	6	3	2	PP-PP
Hong Kong College of Emergency Medicine	6	3	2.50	CME-PP
Hong Kong College of Family Physicians	5	3	N/A	OEA-5.2
Hong Kong College of Paediatricians	6	3	3	E-PP
Hong Kong College of Pathologists	6	3	2.50	CME-PP
Hong Kong College of Physicians	6	3	N/A	PP-PP
Hong Kong College of Radiologists	6	3	2.50	B-PP
The College of Surgeons of Hong Kong	6	3	2.50	CME-PP
CUHK CME for non- specialists	5	3	2.50	
The Nursing Council for Hong Kong	6	N/A	N/A	

Acknowledgements

The Organizing Committee would like to extend its heartfelt thanks to all speakers, chairpersons and delegates for their contributions and participation, as well as the following sponsors for their unfailing support and generous sponsorship.



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Stanley Ho Centre for Emerging Infectious Diseases 何鴻燊防治傳染病研究中心

Correspondence Address:

Room 207, 2/F, School of Public Health Building , Prince of Wales Hospital, Shatin, New Territories

Tel: 2252 8812 | Fax:2635 4977 E-mail: ceid@med.cuhk.edu.hk | Website: ceid.med.cuhk.edu.hk



