### **PROGRAMME BOOK**



2021 30 JUL - 01 AUG (FRI - SUN)

DIGITAL CONFERENCE



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### Welcome Message

On behalf of the Organizing Committee, it is my great pleasure to invite you to the 11th Hong Kong Primary Care Conference (HKPCC) of the Hong Kong College of Family Physicians (HKCFP), which is to be held online from July 30 to August 1, 2021.

This year's theme "Our Finest Hour - Striding through the Storm" highlights the resurgence of an even stronger primary health care from this COVID-19 pandemic that continues to threaten health with devastating impact on people's lives worldwide. A robust primary health care system is the cornerstone of the global response and recovery and the most inclusive, effective and efficient way to keep our community safe and healthy especially during unprecedented times. This pandemic has reminded us of the importance of infection control measures and expedited research development of antiviral drugs and vaccines against the emerging infectious diseases. Most remarkably, primary care professionals including family physicians have been recognized for their flexibility and adaptability in rising to help deal with the pandemic of the century.

We are honored to have invited four eminent plenary speakers namely, Professor Wu Hao, Professor Ivan Hung, Professor Philip Evans and Professor Karen Tu, who will share their expertise, experiences and research studies in facing this challenging pandemic. Professor Wu, who was bestowed with the award 'National Outstanding Individual Award in National Fight against COVID-19 Pandemic', will share with us his experiences in China with his plenary title "Communitybased Prevention and Control". Professor Ivan Hung will update us regarding clinical management of COVID-19 and the characteristics of the various COVID-19 vaccine platforms in Hong Kong. Professor Evans will enlighten us with the UK Primary Care perspective on COVID-19 research and vaccine delivery. Professor Karen Tu will share her riveting big data research work called INTRePID (The International Consortium of Primary Care Big Data Researchers) that gathers family physician researchers from nine different countries around the world in studying the pandemic impact on primary care globally. As always, our seminars and workshops will continue to captivate our participants with diverse, relevant and interesting topics. Besides our signature clinical case competitions, full paper and free paper competitions, we have added Asia Pacific Research Forum, to further enrich our platform in cultivating academic networking and open exchange of views on recent trends in primary care.

I welcome you all to yet another enthralling experience with this forthcoming online conference.

Dr. Lorna NG

Chairman.

Organising Committee,

Hong Kong Primary Care Conference 2021

The Hong Kong College of Family Physicians



### **Welcome Message from President**

On behalf of the Hong Kong College of Family Physicians, I would like to welcome you all to the Hong Kong Primary Care Conference (HKPCC) 2021!

Despite the COVID-19 pandemic has been with us for over 18 months, the quest for new clinical advances and skills remains. We have been able to ride on the success and experience of our first ever digital conference last year in enhancing the organisation and content of this year's scientific programme, thanks to our most dedicated Organising Committee and the incredibly supportive College secretariat.

This year the theme of the Conference is entitled, "Our Finest Hour: Stride through the Storm". The Conference continues to bring together international and local experts, family doctors, nurses, allied health professionals, and other primary care providers in sharing clinical knowledge, advances, expertise and experiences. It also provides a platform for potential collaborations and networking opportunities amongst clinicians and researchers alike.

The scientific programme is comprised of plenary and seminar sessions, including topics related to the challenges of the COVID-19 pandemic, telemedicine, mental health, big data, psoriasis, motivational interviewing, clinical updates, research, education and more. In addition, there are full paper competitions, clinical case competitions, e-posters and e-booths exhibitions. Therefore, there is something to suit every taste.

Looking forward to seeing you at the HKPCC 2021!



0

Dr. David V.K. CHAO

President

The Hong Kong College of Family Physicians



### **Organizing Committee**

**Chairlady:** Dr. NG Lorna

Advisors: Dr. CHAN Ming Wai, Angus

Dr. CHAO Vai Kiong, David

Dr. LAU Ho Lim

Business Management Dr. CHIU Chi Fai, Billy (Coordinator)

**Subcommittee:** Dr. CHENG Ghar Yee, Judy (Deputy Coordinator)

Dr. LEUNG Lok Hang, Will

**Scientific Subcommittee-** Dr. CHIANG Lap Kin (Coordinator)

Dr. YU Yee Tak, Esther (Coordinator)

Dr. LEE Kam Pui, Eric

Dr. LEUNG Lok Hang, Will

Publication Subcommittee- Dr. CHENG Ghar Yee, Judy (Coordinator)

Dr. CHENG Hei Wan, Lian

Dr. HO Shu Wan, Sharon

Dr. TSIM Koon Lan, Kathy

Clinical Case Presentation Dr. KWAN Yu (Coordinator)

**Competition:** Dr. TSIM Koon Lan, Kathy

**Poster Presentation** Dr. WONG Chiu Lun, Aldo (Coordinator)

Competition:

Information Technology: Dr. LUK Man Hei, Matthew (Coordinator)

Ms. CHONG Yuen Chun, Samantha

Ms. CHEUNG Yuk Hung, Kathy

Dr. SZE Pui Ka, Catherine (Coordinator)

Allied Health Planner: Ms. FUNG Kim Yook, Brigitte

Venue:

**Nurse Planners:** 



### **Conference Information**

Date : 30 July - 1 August 2021 (Friday - Sunday)

Format : Digital Conference

Official Language : English

Academic Accreditation: Applications are in progress and details will be announced later.

**Organizer** : The Hong Kong College of Family Physicians

**Conference Secretariat**: Scientific & Publication:

Ms. Suki Lung

**Exhibition & Advertisement:** 

Ms. Teresa Liu

Registration:

Ms. Mavis Law and Ms. Iris Ip

**QA** Accreditation:

Mr. John Ma

General:

Ms. Erica So and Ms. Crystal Yung

**Contact Details** : Tel No. : (852) 2871 8899

Fax No.: (852) 2866 0616

Email: hkpcc@hkcfp.org.hk

**Supported by** : HKCFP Foundation Fund

### **CME/CPD/CNE Accreditation**

### **Accreditation for HKPCC 2021**

College/Programme	For the whole function	30/7/2021 Whole Day	31/7/2021 Whole Day	1/8/2021 Whole Day	CME/CPD Category
Anaesthesiologists	-	1	5	5.5	Non ANA Passive
Community Medicine	10	1	5	5	PP
Dental Surgeons	11.5	1	5	5.5	Cat. B
Emergency Medicine			Pending		
Family Physicians	10	1	5	5	Cat. 4.4
Obstetricians & Gynaecologists			Pending		
Ophthalmologists	-	1	5	5.5	Passive
Orthopedic Surgeons	5	1	3	3	Cat. B
Otorhinolaryngologists			Pending		
Paediatricians	-	1	5	5	Cat. A
Pathologists	10	1	5	5	PP
Physicians	-	1	4.5	5	-
Psychiatrists	11.5	1	5	5.5	PPOP List B
Radiologists	-	1	5	5.5	Cat. B
Surgeons			Pending		
Prosthetist-Orthotists			Pending		
CEU (For HA Pharmacists)			Pending		
MCHK CME Programme	10	1	5	5	Passive
CNE (For Nurse)	-	1	5	5	-

### **Acknowledgement**

The organizing committee wishes to express our most sincere thanks to all parties who have helped to make the HKPCC 2021 a successful one.

### Officiating Guests

### Prof. Sophia S.C. CHAN, JP

Secretary for Food and Health, Food and Health Bureau, HKSAR

#### Dr. David V.K. CHAO

President, The Hong Kong College of Family Physicians

### **Plenary Speakers**

### Prof. WU Hao

Chief Physician;

Member of the National Committee of the Chinese People's Political Consultative Conference (CPPCC);
Director, Fangzhuang Community Health Center of Fengtai District Beijing;
Professor, Department of General Practice, Capital Medical University

#### Prof. Ivan F.N. HUNG

Clinical Professor, Ru Chien & Helen Lieh Professor in Health Sciences Pedagogy,
Chief of the Division of Infectious Diseases, Department of Medicine, LKS Faculty of Medicine,
The University of Hong Kong

#### Prof. Philip H. EVANS

Associate Professor of General Practice and Primary Care, College of Medicine and Health, University of Exeter, Exeter, UK and NIHR CRN National Specialty Lead for Primary Care

#### Dr. Karen TU

Professor, Department of Family and Community Medicine, Temerty Faculty of Medicine, University of Toronto;

Research Scientist, North York General Hospital; Family Physician, Toronto Western Hospital Family Health Team

### Seminar Speakers

#### Dr. LAM Wing Wo

Family Doctor; Marriage and Family Therapist in Private Practice

### Dr. Sunny K.S. LIU

Specialist in Psychiatry

#### Prof. Eric K.P. LEE

Clinical Assistant Professor, JC School of Public Health and Primary Care, The Chinese University of Hong Kong

### **Acknowledgement**

#### Prof. Kelvin K.F. TSOI

Associate Professor, JC School of Public Health and Primary Care, The Chinese University of Hong Kong

### Ms. Mandy M.Y. MAK

Clinical Stream Coordinator, Allied Health, New Territories West Cluster; Cluster Coordinator of Physiotherapy and Department Manager, Physiotherapy Department, Tuen Mun Hospital, Hospital Authority

#### Dr. Robert HENDRY

Medical Director, Medical Protection Society

#### Mr. David KAN

Partner, Solicitor Advocate, Howse Williams

#### Dr. Ronald M.L. YIP

Specialist in Rheumatology; Clinical Services Director, Integrated Diagnostic and Medical Centre, Tung Wah Group of Hospitals

#### Ms. Karen W.Y. TAM

Senior Clinical Psychologist; Head of Oasis, Corporate Clinical Psychology Services, Hospital Authority

#### Dr. HO King Man

Consultant Dermatologist, Department of Health

### Workshop Speakers

### **Dr. FOK Peter Anthony**

Specialist in Family Medicine;
Associate Consultant, Kowloon West Cluster Department of Family Medicine and Primary Care, Hospital Authority;
Member, Motivational Interviewing Network Trainers (MINT)

### Dr. LAU Chi Hang

Specialist in Family Medicine; Private Practice, Member, Motivational Interviewing Network Trainers (MINT)

### Ms. Diana Y.L. CHAU

Department in-charge, Prosthetic & Orthotic Department, North District Hospital; Honorary Secretary, Hong Kong Society of Certified Prosthetist-Orthotists

### HKAM Joint Webinar with HKCFP & HKCFP

### Dr. David V.K. CHAO

President, The Hong Kong College of Family Physicians

### **Prof. LAU Chak Sing**

Immediate Past President, Hong Kong Academy of Medicine

#### Prof. Philip K.T. LI

President, Hong Kong College of Physicians

### **Acknowledgement**

### Asia-Pacific Research Forum Speakers

#### Prof. Sazlina SHARIFF-GHAZALI

Professor in Family Medicine, Department of Family Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia

#### Dr. Carmen WONG

Associate Professor, Family Medicine and Medical Education, JC School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong

### Dr. Sabrina WONG

Assistant Director, Clinical Services, National Healthcare Group Polyclinics, Singapore; Adjunct Assistant Professor, Division of Family Medicine, Department of Family Medicine, Yong Loo Lin School of Medicine, National University of Singapore

### Sponsored Seminar Speakers

### Dr. Enoch WU

Specialist in Endocrinology, Diabetes & Metabolism Honorary Clinical Assistant Professor, The Chinese University of Hong Kong

#### Prof. Gary W.K. WONG

TS Lo Foundation Professor of Paediatrics and Honorary Consultant, Department of Paediatrics, Faculty of Medicine, The Chinese University of Hong Kong

### Dr. Bernard B.L. WONG

Specialist in Cardiology

#### Dr. CHAN Yu Hong

Specialist in Respiratory Medicine

#### Dr. Vicki H.K. TAM

Specialist in Endocrinology, Diabetes & Metabolism; Associate Consultant, Department of Medicine and Geriatrics, Caritas Medical Centre, Hospital Authority; Council Member, Diabetes Division, Hong Kong Society of Endocrinology, Metabolism and Reproduction

### Dr. LEE Chi Nam

Specialist in Neurology;

Honorary Clinical Assistant Professor, Department of Medicine, The University of Hong Kong

#### Dr. Jacky W.K. LAM

Specialist in Otorhinolaryngology

### Dr. Stephen K.M. TAM

Specialist in Cardiology:

Honorary Clinical Associate Professor, Department of Medicine and Therapeutics,

The Chinese University of Hong Kong;

Honorary Consultant Cardiologist, Yan Chai Hospital;

Honorary Consultant Cardiologist, Princess Margaret Hospital, Hospital Authority

### **Acknowledgement**

### Dr. Peter C.Y. TONG

Specialist in Endocrinology, Diabetes & Metabolism;
Clinical Associate Professor (Honorary), JC School of Public Health and Primary Care,
The Chinese University of Hong Kong;
Past President, Hong Kong Society of Endocrinology, Metabolism and Reproduction

#### Dr. Justin CHENG

Medicolegal Consultant, Medical Protection Society

### Dr. Billy C.F. CHIU

Specialist in Family Medicine;

Consultant / Senior Manager (Clinical Operation), CUHK Medical Centre (CUHKMC);
Associate Professor of Practice, JC School of Public Health and Primary Care, Faculty of Medicine,
The Chinese University of Hong Kong (CUHK)

### **Dr. TONG Leon George**

Part-time Private Practice; Member of Board of Education, The Hong Kong College of Family Physicians

### Dr. Joanne K.Y. LAM

Specialist in Endocrinology, Diabetes and Metabolism;
Honorary Assistant Professor, Department of Medicine, The University of Hong Kong;
Chairperson, Diabetes Division of Hong Kong Society of Endocrinology, Metabolism and Reproduction (HKSEMR)

### **Prof. YU Cheuk Man**

Director, Heart Centre, Hong Kong Baptist Hospital; Honorary Clinical Professor, The Chinese University of Hong Kong; Past President, The World Heart Failure Society

#### Dr. Arthur S.Y. YUNG

Specialist in Cardiology;
Associate Consultant and Honorary Clinical Assistant Professor,
Division of Cardiology, Department of Medicine, Queen Mary Hospital, The University of Hong Kong

### Judges of Full, Novice Research Paper Competition

### **Prof. LAM Tai Pong**

Department of Family Medicine & Primary Care, The University of Hong Kong

### **Prof. Albert LEE**

Founding Director, Centre for Health Education and Health Promotion; Clinical Professor, JC School of Public Health and Primary Care, The Chinese University of Hong Kong

### **Prof. Doris YOUNG**

Professor, Yong Loo Lin School of Medicine, National University of Singapore; Head of Department of Family Medicine, National University Health System

### Acknowledgement

### Prof. Cindy L.K. LAM, MH, JP

Chief Judge, Oral Presentation Competition
Danny D. B. Ho Professor in Family Medicine;
Head of Department of Family Medicine and Primary care, The University of Hong Kong

### **Prof. Samuel Y.S. WONG**

Chief Judge, Oral Presentation Competition
Director, JC School of Public Health and Primary Care;
Associate Dean (Education), Faculty of Medicine;
Director, Thomas Jing Centre for Mindfulness Research and Training,
The Chinese University of Hong Kong

### Dr. Ruby S.Y. LEE, JP

Consultant Family Medicine (Elderly Health Service), Department of Health

#### Prof. Martin C.S. WONG

Professor, Family Medicine and Primary Healthcare, The JC School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong;
Professor (Adjunct), The School of Public Health, Peking University;
Professor (Adjunct), The Chinese Academy of Medical Sciences and Peking Union Medical Colleges

### Judges of Free Paper Competition - Poster Presentation

### Prof. Sylvia FUNG, BBS

Honorary Professor; School of Nursing & Health Studies, The Open University of Hong Kong

#### Dr. LI Yim Chu

Specialist in Family Medicine; Council Member, The Hong Kong College of Family Physicians

### Judges of Clinical Case Presentation Competition

#### Dr. Lorna V. NG

Chairman, HKPCC 2021 Organizing Committee, The Hong Kong College of Family Physicians

### Ms. Samantha Y.C. CHONG

Nursing Director, HKU Health System, Li Ka Shing Faculty of Medicine, The University of Hong Kong

### Panel of Advisors

#### Dr. Angus M.W. CHAN

Immediate Past President, The Hong Kong College of Family Physicians

#### Dr. David V.K. CHAO

President, The Hong Kong College of Family Physicians

#### Dr. LAU Ho Lim

Vice-President (General Affairs), The Hong Kong College of Family Physicians

### **Acknowledgement**

### Secretarial Support

Ms. Suki LUNG

Scientific & Publication

Ms. Teresa LIU

Exhibition and Advertisement

Mr. John MA

**QA** Accreditation

Ms. Mavis LAW and Ms. Iris IP

Registration

Ms. Erica SO and Ms. Crystal YUNG

Genera

### Sponsored Seminars and Exhibition Booths

Merck Pharmaceutical (Hong Kong) Limited

**Novartis Pharmaceuticals (HK) Limited** 

**Amgen Hong Kong Limited** 

**Abbott Laboratories Limited** 

AstraZeneca Hong Kong Limited

**Boehringer Ingelheim HK Limited** 

Daichii Sankyo Hong Kong Limited

GlaxoSmithKline Limited

The Medical Protection Society Limited

**Novo Nordisk Hong Kong Limited** 

**Servier Hong Kong Limited** 

Take2 Health Limited

### **Advertisement**

Sanofi Hong Kong Limited



### **Scientific Programme at-a-glance**

Date Time	30 July 2021 (Friday) Pre-conference			
19:30 - 20:30	Sponsored Seminar 1 [Abbott Laboratories Limited]	Management of Mixed Dyslipidemia in Metabolic Syndrome Patient	Speaker: Dr. Enoch WU Chairperson: Ms. Kathy Y.H. CHEUNG	
	Sponsored Seminar 2 [AstraZeneca Hong Kong Limited]	Optimal Care of Asthmatics in the Primary Care Setting	Speaker: Prof. Gary W.K. WONG Chairperson: Dr. Lorna V. NG	
	Sponsored Seminar 3 [Merck Pharmaceutical HK Limited]	About Resistant Hypertension	Speaker: Dr. Bernard B.L. WONG Chairperson: Dr. Matthew M.H. LUK	

Date Time	31 July 2021 (Saturday) Day 1			
12:30 - 13:00	Sponsored Seminar 4 [GlaxoSmithKline Limited]	Local Clinical Review: Choice of Asthma Treatments in Relation to Adherence & Control Outcomes	Speaker: Dr. CHAN Yu Hong Chairperson: Dr. Catherine P.K. SZE	
	Sponsored Seminar 5 [Novo Nordisk Hong Kong Limited]	Achieving Glycemic Control Effectively with Ultra-long Acting Insulin Analogues in Type 2 Diabetes	Speaker: Dr. Vicki H.K. TAM Chairperson: Dr. Eric K.P. LEE	
	Sponsored Seminar 6 [Novartis Pharmaceuticals (HK) Limited]	Migraine Preventive Treatment – Tips for Family Physician	Speaker: Dr. LEE Chi Nam Chairperson: Dr. Esther Y.T. YU	
13:10 - 13:30	ePoster and eBooth Exhibition			
13:30 - 13:50	Opening Ceremony			
13:50 - 14:35	Plenary I	Community-based Prevention and Control	Speaker: Prof. WU Hao Chairperson: Prof. William C.W. WONG	
14:40 - 15:25	Plenary II	COVID-19 Pandemic and Vaccines in Hong Kong	Speaker: Prof. Ivan F.N. HUNG Chairperson: Dr. LAU Ho Lim	
15:30 - 16:15	Plenary III	Rising to the Challenge of COVID-19: A UK Primary Care Perspective on COVID-19 Research and Vaccine Delivery	Speaker: Prof. Philip H. EVANS Chairperson: Dr. Angus M.W. CHAN	
16:20 - 17:00	HKAM Webinar	Joint HKCFP - HKCP Forum on COVID-19 Vaccination in Elderly	Speakers: Prof. LAU Chak Sing, Prof. Philip K.T. LI, Dr. David V.K. CHAO Chairpersons: Prof. Gilberto K.K. LEUNG, Dr. TSANG Ho Fai	
17:05 - 18:20	Seminar A	Mental Health Considerations during the COVID-19 Pandemic	Speakers: Dr. LAM Wing Wo, Dr. Sunny K.S. LIU Chairperson: Dr. Kathy K.L. TSIM	
	Seminar B	Application in Telemedicine - Public Health Care System	Speakers: Prof. Eric K.P. LEE, Prof. Kelvin K.F. TSOI, Ms. Mandy M.Y. MAK Chairperson: Dr. Will L.H. LEUNG	
17:05 - 19:00	Free Paper - Oral Presentation (Part I)	<b>Various Speakers</b> Chairperson: Dr. Esther Y.T. YU		
18:30 - 19:00	Sponsored Seminar 7 [Take2 Health Limited]	Liquid Biopsy for Early Cancer Detection - the Nasopharyngeal Cancer Model	Speaker: Dr. Jacky W.K. LAM Chairperson: Dr. Aldo C.L. WONG	
	<b>Sponsored Seminar 8</b> [Servier Hong Kong Limited]	Latest Update in Hypertension Management	Speaker: Dr. Stephen K.M. TAM Chairperson: Dr. Lorna V. NG	



### Scientific Programme at-a-glance

Date Time	1 August 2021 (Sunday) Day 2				
09:00 - 09:30	Sponsored Seminar 9 [Merck Pharmaceutical HK Limited]	Stopping Diabetes Before It Becomes Unstoppable	Speaker: Dr. Peter C.Y. TONG Chairperson: Dr. Lian H.W. CHENG		
	Sponsored Seminar 10 [Medical Protection Society]	Practical Aspects of Telemedicine	Speakers: Dr. Justin CHENG, Dr. Billy C.F. CHIU, Dr. TONG Leon George Chairperson: Dr. CHIANG Lap Kin		
	Sponsored Seminar 11 [Amgen Hong Kong Limited]	Optimising Osteoporosis Treatment with Individualised Patient Risks	Speaker: Dr. Joanne K.Y. LAM Chairperson: Dr. Will L.H. LEUNG		
09:35 - 10:50	Clinical Case Presentation Competition	<b>Various Speakers</b> Chairperson: Dr. KWAN Yu			
	Seminar C	Update in Telemedicine from a Medico-Legal Point of View	Speakers: Mr. David KAN, Dr. Robert HENDRY Chairperson: Dr. Sharon S.W. HO		
	Workshop 1	Motivational Interviewing in Brief Consultation: Slow down to Speed up Health Behavioral Change	Speakers: Dr. FOK Peter Anthony, Dr. LAU Chi Hang Charirperson: Dr. Aldo C.L. WONG		
09:55 - 10:25	Full Research Paper Awards Presentation*	Various Speakers Chairperson: Dr. Esther Y.T. YU			
10:25 - 12:10	Free Paper - Oral Presentation (Part II)	<b>Various Speakers</b> Chairperson: Dr. CHIANG Lap Kin			
10:55 - 12:10	Seminar D	Clinical Update on Rheumatology for Family Physicians	Speaker: Dr. Ronald M.L. YIP Chairperson: Dr. Kathy K.L. TSIM		
10:55 - 12:10	Seminar E	Self-care for Primary Care Providers	Speaker: Ms. Karen W.Y. TAM Chairperson: Dr. Lian H.W. CHENG		
12:15 - 13:00	Plenary IV	International Consortium of Primary Care Big Data Researchers INTRePID: Studying the Pandemic Impact on Primary Care around the World	Speaker: Dr. Karen TU Chairperson: Prof. Samuel Y.S. WONG		
13:05 - 14:20	Seminar F	The Gaps in Olinical Management of Psoriasis in the Biologics Era	Speaker: Dr. HO King Man Chairperson: Dr. Lorna V. NG		
	Workshop 2	An Overview of Foot Assessment and Foot Orthotic Treatment	Speaker: Ms. Diana Y.L. CHAU Charirperson: Dr. Catherine P.K. SZE		
13:05 - 14:55	Asia-Pacific Research Forum	Qualitative Research Skills – From Conceptualisation, Conducting Interviews & Coding	Speakers: Prof. Sazlina SHARIFF- GHAZALI, Dr. Carmen WONG, Dr. Sabrina WONG Chairperson: Dr. Esther Y.T. YU		
14:25 - 14:55	Sponsored Seminar 12 [Boehringer Ingelheim HK Limited]	Under the Glow of Advances in SGLT2 Inhibitor: Are We Prepared for Practice Change?	Speaker: Prof. YU Cheuk Man Chairperson: Ms. Samantha Y.C. CHONG		
	Sponsored Seminar 13 [Daichii Sankyo Hong Kong Limited]	Optimized Anticoagulation Strategy in Elderly AF Patients	Speaker: Dr. Arthur S.Y. YUNG Chairperson: Dr. Sharon S.W. HO		

<sup>\*</sup>The winners of the Best Research Paper Award and Best Novice Research Paper Award will present their work during this session (9:55-10:25am)

#### Disclaime

Whilst every attempt will be made to ensure all aspects of the conference mentioned will take place as scheduled, the Organizing Committee reserves the right to make changes to the programme without notice as and when deemed necessary prior to the Conference.





### Plenary I

### **Community-based Prevention and Control**



Professor WU Hao
Chief physician; Professor

全國政協委員,現任北京市豐台區方莊社區衛生服務中心主任,北京中醫藥大學全科學系副主任,首都醫科大學全科醫學教授。兼任中國醫師協會全科分會副會長,中國醫師協會內科分會副會長,國家衛健委疾病控制諮詢專家委員會專家,國家健康科普專家,獲得全國抗擊新冠肺炎疫情先進個人。

Member of the National Committee of the Chinese People's Political Consultative Conference (CPPCC)

Director, Fangzhuang Community Health Center of Fengtai District, Beijing

Deputy Director, Department of General Practice, Beijing University of Chinese Medicine

Professor, Department of General Practice, Capital Medical University

Vice Chairman, Branch of General Practitioners and Branch of Internal Medicine, Chinese Medical Doctor Association Expert Member, Disease Prevention and Control Expert Advisory Committee, National Health Commission

Expert Member, National Health Science Expert

National Outstanding Individual Award in National Fight against COVID-19 Pandemic

- 1. To exercise community grid management, comprehensively implement the responsibility of local government, executive branch, organization, individual; carry out closed-loop management of people in high-risk industries and high-risk groups in the community, as well as to implement all specific epidemic prevention and control measures.
- According to the severity of the epidemic, implement precise community containment management, carry out nucleic acid testing of at-risk populations, and use big data and other digital methods to carry out case tracking and close contact investigations.
- Conduct non-home isolation and treatment or medical observation of confirmed cases, suspect cases and close contacts, as well as to standardize the establishment of centralized medical observation and isolation places, and apply strict infection control measures.
- 4. During the epidemic, keep clean and disinfect the environment of key places and areas in the community, strengthen personnel training to guarantee the standard use of disinfection equipment and disinfectants scientifically.
- 5. Publicize and implement personal prevention and control measures, as well as to provide necessary psychological support and intervention.





### Plenary II

### **COVID-19 Pandemic and Vaccines in Hong Kong**



### Professor Ivan F.N. HUNG

MBChB (Bristol), MD (HK), FRCP (Lon, Edin), FHKCP, FHKAM (Med) PDipID (HK) Clinical Professor, Chief of the Division of Infectious Diseases, Department of Medicine, LKS Faculty of Medicine, The University of Hong Kong.

Professor Ivan Fan Ngai HUNG is currently Ru Chien and Helen Lieh Endowed Professor in Health Sciences Pedagogy, Professor of Medicine and Assistant Dean (Admissions), Chief of the Division of Infectious Diseases, Department of Medicine, LKS Faculty of Medicine, The University of Hong Kong, and Honorary Consultant in Queen Mary Hospital, Hong Kong. Professor Hung has published more than 240 international peer reviewed original articles, including research articles in the Lancet, the Lancet Infectious Diseases and the Clinical Infectious Diseases. His research interest includes influenza, SARS-CoV-2 and other respiratory virus antiviral treatment and vaccinology.

Since December 2019, the Covid-19 pandemic has caused unprecedented morbidity and mortality, resulting in more than 120 million confirmed cases, 2.7 million deaths and affected 192 countries. This pandemic of the century has once again reminded us of the importance of infection control measures, and research in the development of antiviral and vaccines against the emerging infectious diseases. Various institutes, governments and pharmaceuticals have worked together to develop an effective COVID-19 vaccine. In fact, more than 80 COVID-19 vaccines are currently under clinical trials. Never in the human history has a vaccine development been completed within 1 year. In this lecture, I will discuss the latest update in the clinical management of COVID-19 and the characteristics of the various COVID-19 vaccine platforms in Hong Kong.





### Plenary III

### Rising to the Challenge of COVID-19: **A UK Primary Care Perspective on COVID-19 Research and Vaccine Delivery**



Professor Philip H. EVANS

MPhil, FRCGP, FHEA

Associate Professor of General Practice and Primary Care, College of Medicine and Health, University of Exeter, Exeter, UK and NIHR CRN National Specialty Lead for Primary Care

Professor Philip Evans is an academic GP and until recently Senior Partner in St Leonard's Practice in Exeter, UK (where he practised for 31 years as a GP). He is the Associate Professor of General Practice & Primary Care of the University of Exeter Medical School. He is also the NIHR Clinical Research Network (CRN) Specialty Cluster Lead, based at Kings College in London (where he is an Honorary Reader) and CRN National Specialty Lead for Primary Care. Phil has had a long-standing research interest in continuity of care in general practice as well as prediabetes/type 2 diabetes. During the COVID-19 pandemic he has been responsible for primary care engagement within the NIHR CRN, contributing to the delivery of COVID-19 primary care studies, including the COVID-19 primary care vaccine studies.

The COVID-19 pandemic has had a devastating impact on the United Kingdom, both in terms of the impact on public health, but also the impact on healthcare. The UK government, early in the pandemic, identified research as being a key component of the UK response. This presentation will describe the steps that were taken at a national level across the UK to rapidly develop and deliver important and potentially game-changing clinical research studies across all sectors of healthcare, as well as social care and public health.

A vital component of the UK response through the National Institute of Health Research (NIHR) was engagement with GPs and other primary care professionals in research studies. The setting up of a UK-wide platform study for community treatments of COVID-19 (PRINCIPLE) was a key step in the primary care research response, especially the virtual trial delivery that was needed in the pandemic. In addition, several of the large clinical trials for potential vaccine candidates were studied in a GP setting, using innovative models of trial delivery. These will be described in detail in the presentation.

Finally, the mass vaccination campaign using deployed vaccines, designed to vaccinate most of the UK population. commenced in December 2020. GPs and primary care colleagues (pharmacists) have been instrumental in the delivery of the UK vaccine rollout. This unprecedented campaign has demonstrated the importance of primary care in the delivery at scale of life-saving public health interventions, such as COVID-19 vaccination.





# International Consortium of Primary Care Big Data Researchers INTRePID: Studying the Pandemic Impact on Primary Care around the World



Dr. Karen TU

Professor Department of Family and Community Medicine, Temerty Faculty of Medicine, University of Toronto; Research Scientist, North York General Hospital; Family Physician, Toronto Western Hospital Family Health Team

Dr. Karen Tu, is a Professor of the Department of Family and Community Medicine at the University of Toronto, a Research Scientist at North York General Hospital as well as a family physician in the Toronto Western Hospital Family Health Team. She has extensive experience in the use of administrative data and is one of Canada's pioneers in the use of primary care electronic medical record data for research and evaluation. Stemming from the pandemic Dr. Tu was inspired to start the International Consortium of Primary Care Big Data Researchers-INTRePID.

The pandemic has taken the world by surprise as we find ourselves in unprecedented times. The impact of the pandemic has not only directly affected those infected, but public health and government mandated measures have also contributed to unintended consequences in primary care. Family medicine visits quickly switched to virtual visits in Canada and in many countries around the world. In Canada cancer screening programs were paused, chronic disease management has been altered and mental health conditions have been exacerbated. In Canada family physicians have been recognized for their flexibility, adaptability and creativity in rising to the occasion to step in to help deal with the pandemic. Family physicians have assisted in long term care home outbreaks, with redeployment to COVID wards, emergency departments and COVID assessment centers. Family physicians have also provided swabbing in long term care homes, and other shared living settings, developed new care delivery strategies and have been instrumental in the COVID vaccination roll out. The importance of family medicine research has never been so apparent. The International Consortium of Primary Care Big Data Researchers – INTRePID gathers family physician researchers from nine different countries around the world with the initial mandate of measuring the impact of the pandemic on primary care. I will share stories from the front lines in Canada as well as illustrate research done on family medicine electronic medical record data or billing claims data in Canada and around the world.





### Seminar A

### Mental Health Considerations during the COVID-19 Pandemic



**Dr. LAM Wing Wo** 

FHKCCP, FRACGP, MBBS (HK), PDipComPsychMed (HK), DCH (Irel), Dip Ger Med RCP (Lond), DFM(CUHK), DPD (Wales); MSocSc (Marriage & Family Therapy), Fellow AAMFT, Clinical Fellow AAFT

Family Doctor and Marriage and Family Therapist in Private Practice

Dr. Lam has been involved in promoting health care across different stages of life via a family context and family well-being through care provision, public education and professional teaching. He is committed to empowering clinicians to improve patient care by applying a family-oriented clinical approach which integrates Family Medicine and Family Therapy



Dr. Sunny K.S. LIU
M.B.,Ch.B.,(CUHK), MRCPsych(UK), FHKAMI

M.B.,Ch.B.(CUHK), MRCPsych(UK), FHKAM(Psychiatry), FHKCPsych Specialist in Psychiatry

Dr. Liu is currently a specialist psychiatrist in private practice. He is also serving as the Honorary Clinical Associate Professor at Li Ka Shing Faculty of Medicine, HKU, Associate Director of the HKJC Centre for Suicide Research and Prevention, HKU, and Honorary Advisor and Lecturer of the Hong Kong Institute of Christian Counselors. His previous posts included Quality and Safety Director of the Hospital Authority, HKEC and Consultant Psychiatrist.

Dr. Liu specialises in clinical psychiatry, with particular focus on the management of stress, psychological health and suicide. His research interests include suicide, stress, anxiety, depression and healthcare management.

The COVID-19 pandemic has affected humanity unprecedentedly in many aspects. Our daily lives have become full of changes, uncertainties, adaptations and worries. The new realities of adoption of various infectious control measures, mask-wearing, on-line communications and meetings, working from home, temporary unemployment, home-schooling of children, restrictions in activities, being homebound with its lack of physical contact with other family members, friends and colleagues requires a lot of adjustments and can be significant stressors. Fear about contracting the virus, concerns about when and how the pandemic will be under control, and personal worries such as financial deterioration, job security, academic and career development can be detrimental for our health especially for our mental health. A local survey conducted between February to July 2020 found that more than 70% of respondents showed signs of moderate to severe depression and around 40% of respondents had symptoms of post-traumatic stress disorder.

Primary care is the frontline of care for people in the community. Early detection and prompt treatment of mental health problems are crucial in these trying times. In this seminar, the common and important mental health conditions in the post-COVID-19 era will be discussed, as well as to engage individuals and their families to seek help and the practical issues in assessment and management in our primary care settings.





### Seminar B

### **Application in Telemedicine - Public Health Care System**



### **Professor Eric K.P. LEE**

MBBS(HKU), HKCFP, FRACGP, MSc Mental Health (CUHK), DPD(Cardiff), Dip Med (CUHK) Clinical Assistant Professor, JC School of Public Health and Primary Care, The Chinese University of Hong Kong

Dr. Lee finished medical school and graduated from the University of Hong Kong in 2007. He practiced in family medicine in Hong Kong for more than 10 years and he obtained his specialist qualification in Hong Kong 2016. He had a master degree in mental health from CUHK in year 2014 and another Master degree in Evidence-Based Health Care from the University of Oxford in year 2020. Dr Lee started to work as a clinical assistant professor since 2016 in the Chinese University of Hong Kong. His research included hypertension, mindfulness, burnout in medical professional and medical systems.



### **Professor Kelvin K.F. TSOI**

BSc, PhD (CUHK)

Associate Professor, JC School of Public Health and Primary Care, The Chinese University of Hong Kong

Dr. Kelvin Tsoi is an Epidemiologist and a Data Scientist. He received his Bachelor degree in Statistics and Doctoral degree in Medical Sciences in the Chinese University of Hong Kong. His research focus is on Digital Health, which is the application of real-time mobile or social digital data for improving public health or reducing future disease burden. The application of Artificial Intelligent on Big Data research is also his interest. His recent research covers digital dementia screening and machine learning on blood pressure variability. He has published over 50 full scientific articles in the foremost journals.

#### The service model and outcome of the tele-BP follow-up pilot study

Hypertension is the most common chronic condition in primary care setting. It poses an enormous burden to public health care system, as the majority (> 80%) hypertensive patients are treated in government-funded general outpatient clinics (GOPCs). Meanwhile, telemedicine has the potential in transforming the current medical service delivery model and reducing public health burden. Can this service model be smoothly introduced to Hong Kong public-funded primary health care system? The SATE-HT Trial is a Tele-BP pilot study in examining the safety, feasibility, and acceptability of using telemedicine to replace face-to-face physician consultations in GOPCs.

In this session, you will obtain more information about this Tele-BP pilot study:

- 1. The brand-new Tele-BP service model in GOPCs: with the use of a validated and locally developed Chinese blood pressure management app and online platform
- 2. Feasibility and acceptability of Tele-BP service model
- Self-efficacy and compliance of people receiving telemonitoring
- 4. Preliminary study findings



### Ms. Mandy M.Y. MAK

Clinical Stream Coordinator, Allied Health, New Territories West Cluster; Cluster Coordinator of Physiotherapy and Department Manager, Physiotherapy Department, Tuen Mun Hospital, Hospital Authority

Ms. MAK is a registered physiotherapist graduated with a Professional Diploma in Physiotherapy and Postgraduate Diploma in Health Care in the Hong Kong Polytechnic University in 1992 and 1999 respectively. She obtained the Professional Development Diploma in Acupuncture for Physiotherapists in the Hong Kong Baptist University in 2009. She then received the Master degree of Primary Health Care in the University of Western Sydney in 2011.

Ms. MAK is currently the clinical stream coordinator of Allied Health in NTWC. She is also the cluster coordinator of Physiotherapy and the department manager of the Physiotherapy Department of Tuen Mun Hospital.

Experience Sharing from NTWC Allied Health (AH) of two telecare pilot programs: 1. Telecare Service model in Elderly Fall Prevention Program; 2. Meal Replacement Program for Overweight with or without Pre-Diabetes.

The implementation of telecare in NTWC AH was catalyzed to cope with the service gap during the Covid-19 pandemic. The development of telecare service of NTWC AH was based on three objectives, namely to provide continuous patient support, creation of virtual space and health care equity. Two pilot programs were conducted in primary health and chronic disease management service. (1) A hybrid mode of elderly fall prevention program with a telephone screening and two onsite consultations, and (2) a hybrid mode of the meal replacement program for overweight adult with or without pre-DM with 12-week ZOOM and onsite consultations, were piloted in Tin Shui Wai Community Health center and Dietetic Out-patient Clinic of Tin Shui Wai Hospital, respectively. The pre and post program clinical outcomes and patient feedback were compared. Moreover, the clinical outcomes of the pilot service models were compared with the conventional models.

For the elderly fall prevention program, the elderly with low and medium fall risk received the hybrid mode of service with significant improvement in most of the selected fall related physical outcomes, fall rate reduction, and fall prevention literacy. Some fall related outcomes did not have significant difference between the pilot and conventional group at the 6-months of the program.

For the meal replacement program, there was significant improvement in either blood glucose level or HbA1c in 25% of the participants, and 55% of the participants had shown at least 5% of body weight reduction. This hybrid program has comparable result to the conventional face to face meal replacement program.

Furthermore, patients joining both pilot programs were satisfied with the services provided. The pilot programs may bring us insight on the implementation of telecare service as one of our future service provisions.





### Seminar C

### Update in Telemedicine from a Medico-Legal Point of View



Mr. David KAN
MBBS, MA (Med Law), MFFLM, BMed Sci (Hons), PDipCAH
Partner, Solicitor Advocate, Howse Williams

David is a dual qualified medical doctor/solicitor and is a Founding Member of the Faculty of Forensic and Legal Medicine of the Royal College of Physicians (UK). He "changed horses" to law almost 25 years ago and nowadays he and Chris Howse lead a team of experienced healthcare lawyers which handle all types of clinical negligence claims, including complex high value and fatal accident claims.

As an experienced litigator, David has gained accreditation as a Solicitor Advocate with Higher Rights of Audience in Hong Kong's Court of First Instance, Court of Appeal and Court of Final Appeal. David has substantial advocacy experience representing clients before the Civil Courts, Coroner's Court and Medical and Dental Council.

David also has considerable experience in advising on mental health law, medical criminal proceedings, clinical trials and risk management issues.

David has a Master Degree in Medical Law and Ethics which placed him on good stead to provide healthcare regulatory advice to healthcare professionals as well as institutional clients including hospitals, pharmaceutical and biotechnology companies, medical device manufacturers, specialist group practices and corporate healthcare providers. In 2008, David was appointed as an Honorary Associate Professor in the Department of Pathology, Faculty of Medicine, The University of Hong Kong. He regularly lectures at HKU as well as to the Specialist Colleges. He also provides clients and others with training in healthcare law. He is an advisor to various entities including the British Medical Association (HK) and the Hong Kong Medical Association.

Outside of private practice, David has served on the governing boards of a government hospital and a major international school for many years. He is also a qualified coach with the Squash Rackets Association (UK) and he trains almost daily.



**Dr. Robert HENDRY** 

Medical Director, Medical Protection Society

Dr. Robert Hendry studied medicine at Dundee University before spending over 12 years as a partner in an urban teaching practice. He developed an interest in medical law and completed an MPhil in Law and Ethics in Medicine at Glasgow University in 1992. This led to consultancy work for the Medical Protection Society and part-time teaching at Dundee University. Since obtaining his MBA from Strathclyde University Graduate Business School in 2001, he has continued to develop his business interests. Appointed as Medical Director of the Medical Protection Society in 2013, Dr. Hendry is responsible for medicolegal services delivered to members worldwide. As a Foundation Fellow of the Faculty of Forensic and Legal Medicine he continues to teach, holds honorary positions at several universities, and has served on several governmental working parties considering dispute management.

To provide an update on case authorities and Medical Council provisions concerning Telemedicine.





# Seminar D Clinical Update on Rheumatology for Family Physicians



Dr. Ronald M.L. YIP FHKAM(Med), FHKCP, FRCP (Edin)

Specialist in Rheumatology; Clinical Services Director, Integrated Diagnostic and Medical Centre, Tung Wah Group of Hospitals

Dr. Ronald Yip is the Clinical Services Director of the Integrated Diagnostic and Medical Centre of the Tung Wah Group of Hospitals and he is the Immediate Past President of the Hong Kong Society of Rheumatology. He is particularly involved in promoting research in rheumatology field, and has published numerous publications. Dr. Yip is also the Honorary Clinical Associate Professor of Department of Medicine and Therapeutics, CUHK; Honorary Clinical Assistant Professor of Department of Medicine, HKU; and the Associate editor of the International Journal of Rheumatic Diseases. In addition, Dr. Yip takes up the position as the advisor of various patients' self-help groups including the Hong Kong Rheumatoid Arthritis Association, Hong Kong Ankylosing Spondylitis Association, B27 association and Hong Kong Psoriatic Arthritis Association.

The understanding of pathogenesis, the advance of diagnostic techniques, and the development of biologics drugs and targeted therapies have revolutionized the entire treatment landscape of rheumatology patients in the past decades. Treat to target strategy has become a very important strategy in the management of different rheumatic diseases. In many inflammatory arthritis and autoimmune diseases, our ultimate treatment goal nowadays should be disease remission, or at least a state of low disease activity. Early diagnosis and regular monitoring of disease activity are therefore necessary to guide our treatment regime.

The seminar will discuss the updated classification criteria, diagnostic techniques of various rheumatic diseases such as Rheumatoid Arthritis, Ankylosing Spondylitis/ Seronegative Spondyloarthropathy (AS/SPA), Psoriatic Arthritis, Systemic Lupus Erythematosus, as well as the international treatment recommendation and updated therapeutic measures of these important rheumatic diseases. The practical approach for family physicians on diagnosis and assessment of rheumatic diseases, the referral strategy, and simple methods for disease monitoring will also be introduced. In addition, local consensus in covid 19 vaccination in adult rheumatic disease patients will be shared.





### Seminar E Self-care for Primary Care Providers



Ms. Karen W.Y. TAM
Senior Clinical Psychologist

Ms. Karen TAM has joined the Oasis - Corporate Clinical Psychology Services (CCPS) for more than a decade now. Being an experienced clinical psychologist, and the head of Oasis, Ms. Tam is responsible for steering the development of psychological services for HA staff, with the objective of enhancing their psychological wellbeing. In her clinical practice, Ms. Tam delivers various evidence-based treatments, utilizes a wide range of holistic orientations and techniques, as well as organizes related training courses to provide psychological support and professional interventions to staff who may be experiencing psychological distress or facing critical incidents (e.g. workplace violence, sudden death).

Healthcare workers often deprioritize their own health and psychological wellbeing in favour of patient care, seemingly the natural instinct for the primary care providers. However, during this unprecedented time of the COVID-19 pandemic, health care providers must first take care of themselves so as to be able to care for their loved ones. It is therefore essential to prioritize self-care and to allow personal time. Through maintaining both physical and mental health, it helps to build resilience and enables healthcare workers to handle the challenges ahead.

This presentation will highlight the practical steps for health care providers to better understand and to adopt personalized self-care strategies during the COVID-19 pandemic. Psychoeducation and experiential practice on self-care and relaxation skills can help promote mental health and reduce stress among health care providers. Existing self-help materials on overcoming stress, depressive symptoms, anxiety, and insomnia related to the pandemic will also be introduced. In addition, seeking for psychological support from specialist psychological services would be another means of early intervention for those with mental health problems.





# Seminar F The Gaps in Clinical Management of Psoriasis in the Biologics Era



**Dr. HO King Man**MBBS (HK), MRCP (UK), Dip GUM (LAS), Dip Derm (London), FHKCP, FHKAM (Medicine), FRCP (Glasgow, Edin), FFPH

Consultant Dermatologist, Department of Health

Dr. Ho graduated from HKU in 1986. After completion of basic physician training in University Medical Unit, QMH, Dr. Ho joined Social Hygiene Service (DH) in 1992. He was appointed Consultant Dermatologist in 2009, then assumed Head of SHS in 2010 and Head of Public Health Services Branch, CHP since July 2018. In different periods of time, he has been appointed Hon Clinical Associate Professor in both CUHK and HKU, Hon Visiting Consultant of the Department of Medicine QEH, Department of O&G QMH, member and Chairman of the Specialty board in Dermatology and Venereology of the HK College of Physicians. Dr. Ho has been actively participating in various CME activities organized by the local professional bodies in the past 20 years.

Psoriasis is a chronic inflammatory skin disease with accelerated epidermal proliferation related to dysregulation of the immune system. It is estimated to affect 0.3% to slightly less than 0.6% of local population. Though 5-30% of psoriasis patients will be complicated by arthropathy, psoriasis is rarely life threatening, leading to the misconception that skin diseases are somewhat less serious than other medical illnesses. From the perspective of the impact to those with the disease, it can be life ruining due to pruritus, cosmetic disfigurement and social stigmatisation. This negative impact on health related quality of life (HRQOL) was confirmed by studies conducted locally and in the Western population.

Treatment of psoriasis is guided by the severity of disease. There are international guidelines on the hierarchy of treatment. In gist, for those with less severe disease, topical treatments are the mainstay of therapy whereas for those with more severe disease, UV light therapy, systemic drug therapy will be considered. However, neither UV light therapy nor systemic drug therapies are welcome by the patients. In recent years, biologic drugs which target specific molecules involved in the inflammatory pathway are developed. These new biologics are more convenient and potent than the conventional therapies. So much so, some people with long standing disease recalcitrant to conventional treatments may achieve almost complete disease clearance. Most available biologics are already marketed in HK.

This short talk aims to summarise the current medical management of psoriasis with a view to facilitate communication between the attending physicians including the primary care physicians and people with psoriasis before they are referred for specialist care in either the private or public sectors. The same principles will also be applicable to access to novel but expensive treatment for other skin diseases including atopic eczema.





### Workshop 1

### Motivational Interviewing in Brief Consultation: Slow down to Speed up Health Behavioural Change



### **Dr. FOK Peter Anthony**

FHKAM (Family Medicine)

Specialist in Family Medicine; Associate Consultant, Kowloon West Cluster Department of Family Medicine and Primary Care; Member, Motivational Interviewing Network Trainer (MINT)

Dr. FOK is currently working at government general out-patient clinic. He is the Associate Consultant of Kowloon West Cluster Department of Family Medicine and Primary Health Care. Dr. FOK is a member of Motivational Interviewing Network of Trainer (MINT) since 2017. He is a current board member of Chinese Association of Motivational Interviewing (CAMI). He had been speaker on Motivational Interviewing in Diploma of Family Medicine, in different NGOs' training courses and in HKU Master of Clinical Pharmacy.



### Dr. LAU Chi Hang

FHKAM (Family medicine)

Specialist in Family Medicine; Private Practice, Member, Motivational Interviewing Network Trainer (MINT)

Dr. Lau is current working as a private general practitioner, he is a HKAM FM specialist, and Honorary Clinical Associate Professor of Jockey Club School of Public health and Primary Care, CUHK. Dr. Lau is a member of Motivational Interviewing Network Trainer (MINT) since 2015. He is also one of the founding and current board members of Chinese Association of Motivational Interviewing (CAMI). Dr. Lau had a decade of experience in teaching and coaching Motivational Interviewing (MI) among health care professionals, he also had written articles related to MI which was shared in newspaper.

Many health conditions are directly related to patient's behaviors like tobacco use, diet, physical inactivity, poor drug adherence, lacking self-monitoring of disease and etc. Addressing and modifying those problem behaviors may help diseases prevention and control which is the main task in family medicine. In real practice, when we give patients advice on behavioral change, it is not uncommon to encounter reluctance or resistance from them. Our usual approach seems not very effective to facilitate behavioral change, even though sufficient consultation time is given.

Motivational Interviewing (MI) is a directive, patient-centered approach that aims to help people change problem behaviors, it helps to enhance intrinsic motivation to change by exploring and resolving ambivalence. In this workshop, we will let participants to understand the basic principles and some essential mind-set and skill-set of this MI approach. Also, we would like to explore how to do it in our daily practice, with an unhurried manner and relatively brief consultation time.





### Workshop 2

### An Overview of Foot Assessment and Foot Orthotic Treatment



Ms. Diana Y.L. CHAU

Department in-charge, Prosthetic & Orthotic Department, North District Hospital; Honorary Secretary, Hong Kong Society of Certified Prosthetist-Orthotists

Ms. Diana CHAU is the Honorary Secretary of Hong Kong Society of Certified Prosthetist-Orthotists. Currently serving in North District Hospital as Prosthetic & Orthotic Department-in-charge, she remains actively involved in teaching prosthetics and orthotics in CUHK and HKPolyU. Apart from specialized in Advanced Prosthetic and Paediatric Orthotic, she also offers advanced services in Silicone Prosthetics, Gait Analysis, Pressure Mapping Analysis, CAD CAM Foot Orthotic, and Patient Specified Device with 3D Printing in her current practice. Having attained B.Sc. in Prosthetics and Orthotics and M.Sc. in Health Technology (Biomedical Engineering Stream) from HKPolyU, she is also the member of the International Society for Prosthetics and Orthotics (ISPO) and Hong Kong Prosthetist-Orthotist Association (HKPOA). When she was working in Jockey Club Rehabilitation Engineering Clinic, she pioneered flatfoot screening programme that offered prompt and mobile assessments conducted in kindergartens and primary schools.

Prosthetist-Orthotists have been providing outstanding foot orthotics to a large group of the population suffering from a variety of foot problems, such as Plantar Fasciitis, Posterior tibial tendon dysfunction and Flexible Flatfeet. Thorough foot assessments are performed in Prosthetic and Orthotic clinics, together with suitable foot orthotics designed and provided to patients of all ages as our daily routine.

This presentation will give the participants a glance of the diversity of foot problems, corresponding foot orthotic treatments and the underlying treatment principles of foot problems that are commonly referred to Prosthetist-Orthotists. By the end of the talk, there would be a demonstration of the foot assessments and scoliosis screening that can be performed in usual clinical consultation room with very few or even no assessment tools.





# Sponsored Seminar 1 Management of Mixed Dyslipidemia in Metabolic Syndrome Patient



Dr. Enoch WU

Specialist in Endocrinology, Diabetes and Metabolism Honorary Clinical Assistant Professor, Chinese University of Hong Kong Private Practice

Dr. Enoch Wu graduated in the UK in 2003 and completed his Specialist training in Endocrinology, Diabetes and Metabolism at the Prince of Wales Hospital, and subsequently pursued overseas training in Obesity Management at the University of Sydney. He has been engaged in Medical Education and Research as an Honorary Clinical Assistant Professor at the Chinese University of Hong Kong.

His area of expertise includes Diabetes and Obesity, and he has extensive experience in the establishment of the Multidisciplinary Management Team for Obese Patients with Metabolic Syndrome, which won the Hospital Authority Outstanding Team Award in 2016. He has been in private practice since 2017, and his solo clinic is situated in Central.

Metabolic syndrome is a risk factors leading to metabolic dysregulation and atherosclerotic cardiovascular diseases. People with metabolic syndrome will increase risk of developing cardiovascular disease is well established. In metabolic syndrome patients with mixed dyslipidemia, despite statin treatment and good control of LDL levels, patients still facing residual CV risk due to hypertriglyceridaemia and/or low HDL levels. There are some new study data showing the management on those CV risk.





# Sponsored Seminar 2 Optimal Care of Asthmatics in the Primary Care Setting



**Prof. Gary W.K. WONG**BMedSc (Alberta), MD (Alberta), DABPed, FRCPC, FHKAM (Paediatrics), MD (CUHK)
TS Lo Foundation Professor of Paediatrics and Honorary Consultant,

TS Lo Foundation Professor of Paediatrics and Honorary Consultant, Department of Paediatrics, Faculty of Medicine, Chinese University of Hong Kong, Hong Kong

Professor Gary Wong obtained his undergraduate medical education from the University of Alberta, Canada. He subsequently received fellowship training at University of British Columbia, and Children's Hospital of British Columbia and visiting Fellowship at the Children's Hospital at Munich, Germany. Prof Wong's main research interests are treatment, control and prevention of respiratory disorders including asthma, wheezing disorder and respiratory infections in children. He has published over 250 indexed original research articles and review articles in his field. He is the immediate Past President of the Asia-Pacific Academy of Pediatric Allergy, Respirology and Immunology (APAPARI). He has been one of the Board of Directors of the Global Initiative for Asthma (GINA) and one of the GINA Assembly members since 2008. He is the current President of the Hong Kong Institute of Allergy and one of the Board of Directors of the World Allergy Organization. He is one of the steering committee members of the ISAAC (International Study of Asthma and Allergies in Childhood) research group. Among other duties within many editorial boards, he is also an associate editor of New England Journal of Medicine.

Asthma is one of the common chronic diseases affecting more than 300 million people worldwide. Despite the availability of effective treatments for most asthmatic patients, real-life studies have revealed that many asthmatics in different parts of the world are sub-optimally controlled. This may partly be due to a mismatch of treatment and the type of asthma the patients have. Despite the advances in our understanding of the underlying mechanisms of asthma and the improvement of asthma treatments, there are several major areas that still require more research efforts to improve the care and to prevent asthma. There are several major problems with our current approach to treatment. Asthma is a chronic inflammatory disease of the airway. Yet, we recommend as needed PRN bronchodilators as the first line treatment. However, when the severity increases, we recommend that patients should take regular anti-inflammatory treatment and should minimize the use of bronchodilator as much as possible. Many mild asthmatics continue to develop exacerbations and most exacerbations are precipitated by viral infections especially those related to human rhinovirus. Recent clinical trials including the SYGMA 1 & 2, Novel START and PRACTICAL Trials using the PRN combination of bronchodilators and ICS was found to be a highly effective option for treating mild asthma. Such evidence has led to the recent changes in the GINA recommendations. Furthermore, many trials of using biologics have clearly demonstrated that only a subgroup of asthma population will respond to a specific biologic. Much of our current treatment is directing at eosinophilic airway inflammation. However, recent evidence from the SIENA trial suggested that a significant proportion of mild asthmatics may be related to non-eosinophilic disease and these patients may respond better to other treatment. In order to improve the control of our asthmatics, we may need to rethink how we treat mild asthma and how to determine the personalized treatments for both mild to severe asthmatics. As most of the mild asthmatics are looked after by physicians in the primary care setting, it is crucial for physicians in primary care to manage these asthmatics using the most effective evidence-based approach to achieve optimal control.





### Sponsored Seminar 3 About Resistant Hypertension



### Dr. Bernard B.L. WONG

MRCP (UK), DME (R.C.P, Ireland), DCH (R.C.P, London), FHKAM (Medicine), FHKCP, FRCP (Edin.), FRCP, RCPS (Glasg.), FRCP (Irel.)

Specialist in Cardiology (Private Sector)

Dr. Wong Bun-Lap Bernard is a private practicing cardiologist. He entered the HKU medical faculty at 1986 and graduated with M.B.B.S. (HK) at 1991. From 1991-2003, he was employed by the HK Hospital Authority, working for the intensive care, medical and cardiac units of QMH, GH, PYNEH, and RH.

Apart from clinical and hospital works, Dr. Wong's interests include public services and sports. He has published 3 books for the public and 4 books for medical professionals. He has been serving as Chief/Co-editor - Continuous Medical Education Bulletin, co-chairman - member continuous Medical Education Committee, Captain of Paddler Dragon Boat Team, and council member of HK Medical Association.

Resistant hypertension is defined as elevated blood pressure (BP) in a patient despite the concurrent use of 3 or more antihypertensive drugs at their maximum tolerated doses, with one of them being a diuretic.

Resistant hypertension is associated with significantly increased risk of adverse cardiovascular events compared with non-resistant hypertension and thus is a severe public health issue.

Such urgent matter calls for effective management by physicians to identify and correct medication adherence upon noticing resistant hypertension. These are the most immediate actions that should be taken.

Assessing and ensuring optimal adherence to medication regimens improve the chance of achieving optimal blood pressure control. The first elements that physicians should examine are the patient's ability to adhere to the regimen on a daily basis and persistence on staying with therapy long term.

On a pharmacological standpoint, improving adherence can be conducted in multiple routes. The first is to use agents that are taken once daily to reduce the frequency of ingestion. The second is to use fixed-dose combination (FDC) over individual drugs to reduce the number of medications taken. This is of particular importance as recently more and more FDCs are now available for physicians to tackle resistant hypertension.

In conclusion, resistant hypertension signifies poor prognosis and therefore attention must be given. The most effective method of resolving this issue is to identify patient's medication adherence, and from there, understand how to simplify the regimen for the patient.





### **Sponsored Seminar 4**

### Local Clinical Review: Choice of Asthma Treatments in Relation to Adherence & Control Outcomes



**Dr. CHAN Yu Hong**MBBS (HK), MRCP (UK), FHKAM, FHKCP
Specialist in Respiratory Medicine

Dr. Chan is currently working as a respiratory specialist in public sector. He has many experiences in treating severe asthma patients and take care of hospitalized asthma patients. His special interest included airway diseases and intervention pulmonology, such as bronchial thermoplasty for severe asthma. He has received training in Heidelberg University in Germany for interventional pulmonology. He was the co-author in the multicenter local review study of asthma and factors associated with recurrent admissions in Hong Kong.

Asthma is associated with chronic airway inflammation and airway hyper-responsiveness. Repeated airway inflammation causes recurrent exacerbations and loss of lung function, this would lead to loss of quality of life and increased mortality. Inhaled corticosteroid (ICS) has been the cornerstone for reducing airway hyper-responsiveness and it has been well shown to reduce asthma mortality. ICS has been advocated in many international guidelines, such as the Global Initiative for Asthma (GINA) for treatment of asthma patients.

However, non-adherence or suboptimal compliance has been the major obstacle for good asthma control, especially for young patients. For elderly patients, the difficulty of device use also hinders the effectiveness of asthma treatment. In fact, many difficult-to-control asthma patients are due to compliance or technique problems rather than genuine severe asthma. Before consideration of new expensive and fancy weapons for asthma control, we must go back to basics to see how patients are using their own puffs.

A comprehensive asthma care with action planning with the patient, user-friendly device, or easy administration schedule may help with patient's compliance. In this talk, we shall share some of the scientific evidences on different modes of inhaled steroid administration in relation to clinical outcome.

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### **Sponsored Seminar 5**

# Achieving Glycemic Control Effectively with Ultra-long Acting Insulin Analogues in Type 2 Diabetes



### Dr. Vicki H.K. TAM

Associate Consultant, Department of Medicine and Geriatrics, Caritas Medical Centre

Dr. Vicki Tam is currently the Associate Consultant of the Department of Medicine and Geriatrics, Caritas Medical Centre.

After obtaining her Fellowship in Endocrinology, Diabetes and Metabolism in 2007, Dr Tam works as an endocrinologist in the Department of Medicine and Geriatrics of Caritas Medical Centre. For the past few years, she led the Endocrine and Diabetes service of the department. She is currently the Council Member of the Diabetes Division of the Hong Kong Society of Endocrinology, Metabolism and Reproduction. Apart from provision of quality clinical care, she is vigorous in revision of protocols, providing endocrine training and organizing various activities in promoting diabetes education among medical colleagues and patients. Dr. Tam is also an enthusiastic teacher of all levels of doctors. She has particular interest in diabetes and its complications. She participated research and publication in this area.

Type 2 diabetes mellitus is a chronic progressive disease that often requires treatment with basal insulin to maintain adequate glycemic control. Basal insulin analogues have been designed to mimic the action of endogenous insulin. Ideally, a new basal insulin would effectively maintain glycaemic control, have flat time action profile, long duration of action and low variability.

This year marks the 100th anniversary of insulin's discovery. Basal insulins with improved kinetic properties were developed by genetic engineering such that they remain soluble but become highly self-associated after injection from which the monomers are released slowly. These new ultra-long acting insulin analogues demonstrated different pharmacokinetic and pharmacodynamic profiles and longer durations of action (>24 hour) compared with insulin glargine U100, which may lead to potential benefits.

Insulin glargine U300 (IGIar 300) and insulin degludec U100 are the ultra-long acting insulin analogues currently available in local market. Compared with insulin glargine U100, ultra-long acting insulin analogues have lower risk of overall and nocturnal hypoglycemia while providing similar glycemic control. Consequently, ultra-long acting insulin provide an effective treatment for type 2 diabetics who are prone to hypoglycemia with insulin glargine, in particular older patients, patient with hypoglycemia unawareness and those with unexplained large glycemic variability. Insulin degludec has another advantage that it allows flexible dosing which may benefit patients who find it challenging to inject insulin at the same time of the day, especially shift workers and people who travel regularly.





# Sponsored Seminar 6 Migraine Preventive Treatment - Tips for Family Physician



**Dr. LEE Chi Nam**MBBS (HK), MRCP (UK), FHKCP, FHKAM (Medicine), FRCP (Edin), PgDipPD(Cardiff)
Specialist in Neurology

Dr. Lee Chi Nam is a practicing neurologist with special interest in Neurophysiology. He was an associate consultant in the Pamela Youde Nethersole Eastern hospital and a honorary clinical assistant professor of Faculty of Medicine, University of Hong Kong

Dr. Lee undertaken his oversea specialist neurology training at the Walton Center NHS Foundation Trust, United Kingdom. He is currently a council member of the Hong Kong Society of Neuromuscular Disease (HKSNMD) and the Chairman of the Subcommittee on Clinical Neurophysiology of the Hong Kong Neurological Society (HKNS)

Headache disorders are among the most common disorders of the nervous system. Migraine, tension-type headache and cluster headache are the commonest type of primary headache disorder. Proper history and physical examinations are needed to delineate the cause of primary headache disorder. Prompt referral to a specialist is needed when specific red flag are met in clinical practice.

Migraine is one of the leading causes amongst primary headache disorder. Major social and personal burden to patients will result if not properly manage.

Besides lifestyle modification, the pharmacological treatment of migraine consists of both acute and preventive therapy. Effective acute migraine treatments are needed to stop the pain. Frequent, severe and long-lasting migraine attacks require preventive therapy. Standard proven migraine preventive medications therapy effectively reduces migraine frequency, severity, and headache-related distress. Preventive therapy may also improve quality of life and prevent the progression to chronic migraines. However it is often underused and can be associated with poor patient adherence due to the occurrence of side effects.

Advances in prophylactic migraine therapy target against a protein called calcitonin gene-related peptide (CGRP). This targeted prophylactic therapy (CGRP monoclonal antibody) can provide an effective, well-tolerated new option for patients with migraine, even in those who have failed other prophylactic treatments. The convenient monthly dosing promotes better adherence.





# Sponsored Seminar 7 Liquid Biopsy for Early Cancer Detection the Nasopharyngeal Cancer Model



**Dr. Jacky W.K. LAM**Assistant Professor, Department of Chemical Pathology, The Chinese University of Hong Kong

Dr. Jacky Lam is appointed as Assistant Professor of the Department of Chemical Pathology, Assistant Professor (by courtesy) of the Department of Otorhinolaryngology, Head and Neck Surgery and Honorary Associate Consultant at the Prince of Wales Hospital. Dr. Lam obtained his medical degree in 2007 and received his Ph.D. from the Chinese University of Hong Kong in 2020. His research interests are on the biological features of plasma DNA and its potential clinical application in noninvasive cancer detection. He is involved in a large-scale prospective clinical study using plasma Epstein-Barr virus DNA for screening of nasopharyngeal carcinoma. Based on this study, he has further investigated the distinct molecular features of plasma Epstein-Barr virus DNA in nasopharyngeal cancer. Such discoveries have led to the development of novel diagnostic assays for NPC screening and Dr. Lam has filed multiple patent applications on related assays.

Nasopharyngeal Carcinoma (NPC) is most prevalent in Southern China and is one of the common cancers in Hong Kong. Early detection of NPC is difficult as most patients remain asymptomatic at the early stage of the disease.

Liquid biopsy provides new avenues for early cancer detection with the potential for detection at an early stage, treatment modification, and surveillance of head and neck cancers.

In a landmark study in 2017, Chan et al. examined over 20,000 Chinese male subjects and analyzed the cell-free EBV DNA in their plasma samples as a screening tool for NPC. The NPC patients identified by screening were diagnosed with tumors of significantly earlier stages. This study also suggested the early NPC detection could potentially result in better survival outcomes for patients with NPC. (Chan et al., 2017).

The application of the liquid biopsy could be potentially useful for screening of early asymptomatic NPC in populations with a high prevalence of the disease.





# Sponsored Seminar 8 Latest Update in Hypertension Management



### Dr. Stephen K.M. TAM

MBBS (HK), MRCP (Irel), FHKCP, FHKAM (Medicine), FRCP (Irel), FACC, FRCP (Glasg)

Specialist in Cardiology; Honorary Clinical Associate Professor, Department of Medicine and Therapeutics, The Chinese University of Hong Kong; Honorary Consultant Cardiologist, Yan Chai Hospital; Honorary Consultant Cardiologist, Princess Margaret Hospital

Dr. Tam graduated from Medical school of Hong Kong University and had been working in different hospitals. In 1995, he had been awarded a 1 year scholarship as a fellow to work at the Mayo Clinic in Rochester, Minnesota, USA. It was one of the prestigious awards in recognition of a distinguished trainee in cardiology. After returning to Hong Kong, he was actively engaged in the cardiology service including pacemaker implantation and percutaneous coronary interventions. Dr. Tam is a current member and fellow of many local and overseas academic institutions (including Fellow of Hong Kong College of Cardiology, Fellow of Hong Kong College of Physicians, Fellow of the Royal College of Physicians of Ireland, Fellow of the Royal College of Physicians of Glasgow, Fellow of American Heart Association, Fellow of American College of Cardiology and Associate Fellow of Asia Pacific Society of Interventional Cardiology). He is currently honorary clinical associate professor of the Chinese University of Hong Kong in the Faculty of Medicine and Therapeutics. He had been teaching medical students for more than 20 years.

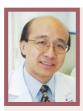
Dr. Tam was an active researcher in clinical cardiology. He has participated in multi-center clinical trials such as EPICOR and EXAMINE. He also had over 40 publications in different aspects of cardiology in local and overseas journals. He has also been invited as speaker, faculty e.g. yearly invited faculty in TCTAP since 2011 and Imaging & Physiology Summit since 2013, or spokesman in numerous local and international cardiac meetings and heart health press media conferences. He had also delivered more than a hundred health talks to the public in the past 20 years.

Hypertension remains a burden for healthcare globally and locally, it has the highest prevalence among the common "3 highs" in Hong Kong. This lecture aims to provide an overview on latest update in hypertension management with a focus in linkage of hypertension and cardiovascular diseases. It will investigate how endothelial dysfunction contribute to undesirable outcomes. Moreover, we will learn how to improve the outcomes by restoring the endothelial functions especially through bradykinin and nitric oxide. Through clinical studies, we will study the effect of these endothelial components on cardiovascular protection. I will also walk through international guidelines to understand the latest recommendation and how we can apply them into daily clinical practice. With single-pill combinations highly endorsed by guidelines and becoming a trend in different therapeutic areas, this lecture will go through the rationale behind with some clinical cases sharing.





# Sponsored Seminar 9 Stopping Diabetes Before It Becomes Unstoppable



### Dr. Peter C.Y. TONG

PhD, MBBS, BPharm, FRCP (London, Edinburgh), MRCP, FHKCP, FHKAM Specialist in Endocrinology, Diabetes & Metabolism (Private Sector)

Dr. Tong is a Clinical Associate Professor (Honorary) in the Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong, and is a Past President of the Hong Kong Society of Endocrinology, Metabolism and Reproduction. He was a professor in the Department of Medicine & Therapeutics, The Chinese University of Hong Kong.

Dr. Tong's research areas include disease management models of diabetes, diabetic kidney disease, obesity, the cellular mechanism of insulin resistance, and the use of traditional Chinese medicine in the treatment of diabetes. His work has been published in many international peer-reviewed scientific journals.

Prediabetes is an intermediate metabolic state between normoglycemia and diabetes, and it can manifest in patients as impaired fasting glucose (IFG), impaired glucose tolerance (IGT) or mildly raised HbA1c. Recent evidence found that individuals with prediabetes have a much higher prevalence rate of diabetes, and also complications associated with diabetes.

Awareness of diabetes in Hong Kong is improving gradually, however, prediabetes is still being highly underestimated as it is often silent with no obvious symptoms. As such, early and intensive glucose control to prevent progression is of utmost importance

Management of prediabetes relies heavily on timely screening for individuals that require interventions. Routine glucose screening should be encouraged to effectively promote additional check, especially in high-risk groups such as obese, or with sedentary lifestyle. Subsequently, lifestyle intervention or pharmacotherapy, should be considered to manage prediabetes.

Lifestyle interventions, including exercise and diet, can induce weight loss. According to ADA and EASD, weight loss contributes significantly in controlling glucose, and thus minimizing incidence of diabetes. Effective lifestyle intervention can reduce the incidence risk of diabetes by at least 25%.

Pharmacotherapy, such as using metformin, is recommended by ADA to prevent diabetes in patient with prediabetes, especially in high risk individuals. Pharmacotherapy should be considered when lifestyle intervention is insufficient.

Diabetes leads to severe consequences, therefore early screening and intervention are crucial to reverse prediabetes. Front line healthcare professionals especially general practitioners and family physicians should take a proactive approach in tackling prediabetes before it is too late.





# **Sponsored Seminar 10 Practical Aspects of Telemedicine**



**Dr. Justin CHENG** MBBS MScSEM FRCSEd MBA(Merit) Medical Consultant, Medical Protection Society

Dr. Cheng is a Medicolegal Consultant of MPS and he supports MPS members in Asia, particularly in HK, Singapore and Malaysia, Dr. Crieng's a well-acceptance of the Caribbean. Dr. Cheng has been a MPS Risk Prevention workshop facilitator for over ten years and he is accredited by MPS to conduct workshops including Mastering Your Risk (MYR), Mastering Adverse Outcomes (MAO), Mastering Difficult Interactions with Patients (MDIP), Mastering Professional Interactions (MPI), Mastering Shared Decision Making (MSDM) and

He has co-authored the MPS-HKMA's Clinical Risk Management Handbook with Dr. James Chiu, Dr. David Lam and colleagues from Howse Williams and Mayer Brown. The handbook has 45 chapters and aimed to navigate MPS members to safer practice. Dr. a director of a medical group in HK, and as a regional coordinator for an international assistance organisation. He enjoys public



Dr. Billy C.F. CHIU

M.B.B.S. (HK), FRACGP, FHKCFP, FHKAM (Family Medicine), MPH (HK), PdipCommunityGeriatrics (Hong Kong), PDipIntMed&Therapeutics (HKU), PDipComPsychMed (HK)

Consultant / Senior Manager (Clinical Operation), CUHK Medical Centre (CUHKMC) Associate Professor of Practice, Jockey Club School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong (CUHK)

Dr. Billy Chiu is a Specialist in Family Medicine with more than 20 years of clinical experience in both the public (the Hospital Authority) and private healthcare institution. In Hong Kong, Specialists in Family Medicine serve predominantly as general practitioners, providing holistic, comprehensive and continuous primary care to the population. Dr Chiu is particularly interested in administrative medicine, telemedicine, mental wellness & illness, and health screening.

Dr. Chiu joined CUHK Medical Centre in August 2019. Since then, he has been assisting in CUHKMC's operation, driving service development, doctor engagement, and continuing to practice clinical Family Medicine/Primary Care to its patients. One inadvertent "side effect" of COVID-19 pandemic was accelerating the necessity for delivering healthcare digitally. Dr. Chiu is on a mission to



**Dr. TONG Leon George** 

MBBS (HK), CCFP, FCFP

Part-time Private Practice

Dr. Tong attended Brown University in the US and HKU Faculty of Medicine. Dr. Tong was initially trained in Orthopedics & Accident & Emergency in HK, but then completed Family Medicine training in Canada, and practiced in a multispecialty clinic there for 2 years.

Dr. Tong worked for the Hospital Authority from 1995 to 2018 as Family Physician in the HA Staff Clinic, Integrated and General Outpatient clinics. Currently, Dr. Tong is a Member and the Medicolegal Alert Interest Group Coordinator of the Board of Education, and a Fellowship Examination examiner in the Hong Kong College of Family Physicians.

His Special medical related interests include medical jurisprudence & the history of Medicine. Non-medical interests include music, travel, art, collecting and chess

This seminar is part of our Telemedicine series to help practitioners to understand the practical aspects of remote consulting and medical services.

Telemedicine is increasingly being used to continue to provide ongoing healthcare which has been disrupted by the current pandemic. It requires a relatively new set of skills from us. Join our seminar to find out how we can provide high quality care through modern technology. There will be live discussion on challenging cases and an opportunity for you to listen to our panel speakers on how they might approach each scenario.

This seminar will be followed by a review on the medicolegal aspects of Telemedicine.





# Sponsored Seminar 11 Optimising Osteoporosis Treatment with Individualised Patient Risks



**Dr. Joanne K.Y. LAM**MBBS(HKU), MRCP(UK), FHCP, FHKAM(MEDICINE)
Specialist in Endocrinology, Diabetes and Metabolism

Dr. Joanne Lam obtained her MBBS degree from the University of Hong Kong in 2004 and received her training in internal medicine at Queen Mary Hospital. She obtained her fellowship in Endocrinology, Diabetes and Metabolism in 2011. She is currently honorary assistant professor at the University of Hong Kong and chairperson of Diabetes Division of Hong Kong Society of Endocrinology, Metabolism and Reproduction (HKSEMR). She has delivered more than 50 lectures on diabetes, osteoporosis, and other endocrine diseases in various local and regional conferences. She worked as associate consultant in the department of Medicine of Queen Mary Hospital before joining the private sector in 2020.

Osteoporosis is highly prevalent but underdiagnosed and undertreated in Hong Kong. The prevalence of osteoporosis in people aged ≥50 years in Hong Kong is estimated to be as high as 37%. Although common, osteoporosis is clinically silent, until fracture occurs. Without disease screening and treatment, the costs of osteoporotic fracture–related morbidity and mortality will be enormous.

Dual-energy X-ray absorptiometry is used for measuring bone mineral density (BMD) and diagnosing osteoporosis. BMD measurement should be considered in women aged 65 years or older; and men aged 70 years and older; and younger patient with clinical risk factors for osteoporosis, and/ or fracture. Patients with osteoporosis should be encouraged to maintain a healthy balanced diet rich in calcium and vitamin D, regular exercises, and avoidance of smoking and excessive alcohol intake. Pharmacological treatment should be considered in patients with (1) History of hip or vertebral fracture, (2) BMD T-score $\leq$ -2.5 at the femoral neck or spine, and (3) Low bone mass, and 10-year probability of hip fracture  $\geq$ 3%, or 10-year probability of any major osteoporosis-related fracture  $\geq$ 20%, based upon the WHO FRAX algorithm.

Anti-osteoporosis medications can be broadly classified into antiresorptive and anabolic (bone-forming) agents. Recommendations for treatment options are based on patient's characteristics, such as gender, degree of fracture risk, and comorbid diseases. In this talk, I would use a case-based approach to illustrate the use of various anti-osteoporosis medications in patients with different risks.





# **Sponsored Seminar 12**

# Under the Glow of Advances in SGLT2 Inhibitor: Are We Prepared for Practice Change?



### **Professor YU Cheuk Man**

MBChB, MRCP, FRACP, FHKCP, FHKAM(Medicine), MD, FRCP(Edin/London), FACC

Director, Heart Centre, Hong Kong Baptist Hospital; Honorary Clinical Professor, The Chinese University of Hong Kong; Past President, The World Heart Failure Society

Dr. Yu is currently the Director of Heart Centre of Hong Kong Baptist Hospital. He is also the Honorary Clinical Professor of the Chinese University of Hong Kong (CUHK), and Past President of the World Heart Failure Society. Before joining the HK Baptist Hospital, Dr Yu was the Chair Professor of CUHK and Consultant Cardiologist at the Prince of Wales Hospital (PWH). He had served CUHK and PWH in many capacities including the Chairman of the Department of Medicine and Therapeutics, Head of Division of Cardiology, Assistant Dean of the Faculty of Medicine, Director (Clinical Sciences) of the Institute of Vascular Medicine, and Director of the HEART Centre.

Dr. Yu has been serving as the Associate Editor, editorial board member/advisor for many known cardiology journals in the past ten years, such as the European Heart Journal, Nature Cardiology Review, International Journal of Cardiology, Heart, Circulation Journal, Cardiovascular Drugs and Therapy, and Echo Research and Practice. He is also a reviewer for over 30 international journals. Dr Yu has published extensively with over 400 full scientific articles and reviews in refereed journals including the New England Journal of Medicine, Annals of Internal Medicine, Circulation, EHJ, JACC, IJC etc. His work is frequently referred to by peer groups with a total citation of over 12,500, and with a H-Index of 54. He has edited 12 books and authored over 30 book chapters. Dr Yu has a board range of clinical and research specializations including interventional cardiology, heart failure, device therapy, echocardiography and cardiovascular imaging, and has participated in a large number of multicenter clinical trials. He has been frequently invited as a faculty speaker in many prestigious cardiology conferences around the world. To date, he has delivered over 500 invited lectures worldwide.

Dr. Yu also founded the first and the only Master degree for Cardiology program in Hong Kong with more than 550 graduates to date. He has organized over 20 international Cardiology conferences and workshops as Program Director or Chairman.

Sodium-glucose co-transporter 2 (SGLT2) inhibitors, such as empagliflozin, canagliflozin and dapagliflozin, are oral anti-hyperglycemic agents that have shown cardiorenal benefits in patients with type 2 diabetes mellitus (T2DM).

In the EMPA-REG OUTCOME trial, empagliflozin demonstrated significant benefits in 3-point MACE, cardiovascular (CV) death, hospitalization for heart failure and all-cause mortality. In addition to the CV benefits, empagliflozin also reduces the risk of developing incident or worsening nephropathy.

And this is just the end of the beginning: Latest evidence has extended the use of SGLT2 inhibitors for the treatment of heart failure irrespective of the presence of diabetes. In the EMPEROR-Reduced trial, empagliflozin reduced the risk of cardiovascular death or hospitalization for heart failure in patients who has heart failure with reduced ejection fraction (HFrEF), and the benefits were observed on top of standard of care, including angiotensin receptor-neprilysin inhibitor (ARNI). In this study, empagliflozin also demonstrated renoprotective effects by slowing the rate of decline in estimated glomerular filtration rate (eGFR), which was accompanied by a lower rate of serious renal outcomes. Ongoing studies on their use in heart failure with preserved ejection fraction, are eagerly awaited.

The 2021 American College of Cardiology (ACC) Expert Consensus Decision Pathway for HFrEF recognizes the growing evidence supporting the use of SGLT2 inhibitors in patients with HFrEF, and thus include this drug class as one of the four pillars (together with ARNI, evidence-based beta-blockers and aldosterone antagonists) of first-line medications for all HFrEF populations.

Are clinicians prepared to prescribe SGLT2 inhibitors for outcome protection in T2DM / extend SGLT2 inhibitors beyond glycemic control? In this lecture, we will walk through the above evidence and discuss how these can be translated into clinical practice.





# Sponsored Seminar 13 Optimized Anticoagulation Strategy in Elderly AF Patients



### Dr. Arthur S.Y. YUNG

MBBS(HKU), MRCP(UK), FHCP, FHKAM(MEDICINE)

Associate Consultant and Honorary Clinical Assistant Professor, Division of Cardiology, Department of Medicine, Queen Mary Hospital, The University of Hong Kong

Dr. Arthur Yung obtained his medical degree from The University of Hong Kong in 2006 and completed his cardiology training in 2014 at Queen Mary Hospital. He is currently an associate consultant of the Division of Cardiology, Department of Medicine, QMH. He underwent post-fellowship training in Complex Coronary and Structural Heart interventions at the University Hospitals Cleveland Medical Center in Ohio, USA 2018-2019. His special interests include complex coronary interventions, structural heart interventions, mechanical circulatory support and device implantations.

Non-Vitamin K Antagonist Oral Anticoagulant (NOAC) has emerged as the preferred anticoagulant option for stroke prevention in atrial fibrillation (SPAF). Elderly patients are generally frailer and have more comorbidities, which could increase their risk of fall and bleeding. Yet, as the risk of stroke increases with age, balancing the risk and benefits is crucial in the use of NOAC, especially in elderly patients. In this lecture, we will hear from a cardiologist perspective on managing anticoagulation in vulnerable patients.





# Asia-Pacific Research Forum Qualitative Research Skills – From Conceptualisation, Conducting Interviews & Coding



### **Professor Sazlina SHARIFF-GHAZALI**

MBBS (Adelaide), Master Family Medicine (Malaya), PhD (Monash)

Professor in Family Medicine, Department of Family Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia

Professor Sazlina Shariff-Ghazali is a family physician with Universiti Putra Malaysia (UPM) and an Advisory Board Member for Exercise is Medicine Malaysia. She is also a research associate with the Malaysian Research Institute of Ageing.

Her research interest includes supported self-management of non-communicable diseases, patient empowerment, health literacy, medical gerontology and e-health. She has reviewed for national and international academic journals in the areas of family medicine, geriatric health and clinical research. She is an associate editor of the Malaysian Family Physician Journal and a reviewer for Universiti Putra Malaysia Putra Research Grant and Ministry of Higher Education Fundamental Research Grant Scheme.



### Dr. Carmen WONG

BSc(UK), MBBCh(UK), MRCGP(UK), MEd(UK), FHEA

Associate Professor in Family Medicine and Medical Education, The Jockey Club School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong

Dr. Carmen Wong is an Associate Professor of Medical Education and Family Medicine, The Jockey Club School of Public Health and Primary Care and the Assistant Dean (Education) at The Chinese University of Hong Kong.

Dr. Wong graduated from the Cardiff University School of Medicine (UK) with a bachelor degree in Psychology (BSc) and in Medicine (MBBCh). Dr. Wong is a member of the Royal College of General Practitioners (UK). She is a fellow of the higher education academy and obtained a Master of Science of Clinical Education (Edinburgh, UK).

Dr. Carmen Wong is the coordinator of Doctor and Patient course, Clinical Communications course and Family Medicine module, Faculty of Medicine. She is a member of the Senate committee of Language enhancement and Hong Kong Teaching Excellence Alliance (HKTEA). She received the Faculty Teaching Award, University Education Award and the prestigious University Grants Council (UGC) Education award in 2020.

Educational research interests include use of online learning and learner wellbeing and development. She has obtained numerous teaching grants. Her works include the development of electronic educational tools such as the CUHK medical audio glossary for health professionals, blended and experiential learning in clinical communication skills, social responsibility and interdisciplinary curriculum design and implementation. Dr. Wong continues to practice as an honorary resident of the Hospital Authority in Family Medicine and is Director of the Centre of Research and Promotion in women's health.



### Dr. Sabrina WONG

MBBS, M.Med(FM), FCFP, FAMS

Assistant Director, Clinical Services, National Healthcare Group Polyclinics, Singapore; Adjunct Assistant Professor, Division of Family Medicine, Department of Family Medicine, Yong Loo Lin School of Medicine, National University of Singapore

Dr. Sabrina Wong is currently a Senior Consultant Family Physician in National Healthcare Group Polyclinics. She is also an Associate Director of Clinical Services and the chief examiner of the Family Medicine Examination Committee.

Her areas of interest include developing innovative chronic care models for better health outcomes, supporting patient empowerment and medical education assessment.

This session will be an immersive experiential workshop in qualitative research skills led by members of a regional collaborative project of the Asia-Pacific Academic Primary Care Group (AAPCG). This intensive workshop aims to equip participants with the knowledge and skills in conducting qualitative research. Participants will experience the research process: from consent to online group interview and dynamics. Using this experience, speakers will provide tips on qualitative research from conceptualisation through to coding and analysis.

The session will be divided into four parts:

- 1. Basics of qualitative research: Defining research questions and methods
- 2. Focus group interview experience
- 3. Debrief & Tips for group and online interviewing
- 4. Coding and Analysis













# **HKAM** webinar:

# Joint HKCFP - HKCP Forum on COVID-19 vaccination in elderly



**Professor LAU Chak Sing** 

Immediate Past President, Hong Kong Academy of Medicine

Professor Lau Chak Sing is Daniel CK Yu Professor in Rheumatology and Clinical Immunology of the Li Ka Shing Faculty of Medicine, The University of Hong Kong. He now serves as Head and Chief of Service of the University Department of Medicine at Queen Mary Hospital. In December 2020, Professor Lau was appointed Convener of the Advisory Panel on COVID-19 Vaccines formed under the Prevention and Control Disease (use of vaccines) Regulation of the Hong Kong Special Administrative Region Government.



Professor Philip K.T. LI

President, Hong Kong College of Physicians

Professor Philip LI is the Consultant Physician of the Department of Medicine and Therapeutics at the Prince of Wales Hospital, Hong Kong and also the Honorary Professor of Medicine at the Chinese University of Hong Kong. He is the President of the International Association of Chinese Nephrologists (IACN) and the President of Asian Pacific Society of Nephrology (2016-9) and President of International Society for Peritopneal Dialysis (2014-6)



Dr. David V.K. CHAO

President, Hong Kong College of Family Physicians **Moderators:** 



Professor Gilberto K.K. LEUNG

President,

Hong Kong Academy of Medicine



Dr. Thomas H.F. TSANG

President,
Hong Kong College of Community Medicine

Dr. David Chao is the Chief of Service and Consultant of Department of Family Medicine and Primary Health Care, Kowloon East Cluster, Hospital Authority, Hong Kong. He is a member of Advisory Committee on Primary Care Directory, Advisory Group on Antibiotics Stewardship in Primary Care, Cancer Expert Working Group on Cancer Prevention and Screening, Working Group on Prevention of Iodine Deficiency Disorders, and Grant Review Board of the Health and Medical Research Fund. He is Honorary Clinical Professor of the Chinese University of Hong Kong and Honorary Clinical Associate Professor of the University of Hong Kong.

#### Introduction

COVID-19 Vaccination is one of the most effective and important armamentaria in combating the COVID -19 infection around the world. Elderly population is the most vulnerable group and vaccination in this group will enhance protection against the virus, both in terms of reducing infection risk as well as decreasing disease severity even when infected. The elderly in the community and in residential homes are both at risk. It is noted that the vaccination rate in elderlies and staff in residential homes in Hong Kong are not satisfactory raising the alarm that if there is unfortunately another wave of infection, especially with variants of concern, will have devastating consequences. The College of Family Physicians and College of Physicians jointly present this Forum as a webinar of Hong Kong Academy of Medicine to provide the latest knowledge of vaccination in the Elderly with both local and global experience. We invite all Academy Fellows, members and specialist trainees of Academy Colleges as well as other healthcare professionals to participate and to understand more on the issues and benefits of a wider vaccination in this vulnerable group of elderlies.



# **Full Research Paper Competition**

No.	PRESENTATION TOPIC	AUTHORS (The name of the presenting author is underlined)
01	Utilization rate of non-vitamin K antagonist oral anticoagulant, and associated factors of non-vitamin K antagonist oral anticoagulant refusal in non-warfarinised atrial fibrillation patients – A study in Hong Kong general out-patient clinic	Dr. CHEN Liujing
02	Effects of a telecare case management program for homebound older adults during the COVID-19 pandemic: A pilot randomized clinical trial	Dr. Arkers K.C. WONG, Frances K.Y. WONG, Karen K.S. CHOW., WONG S.M.
03	Overnight pulse oximetry screening positive obstructive sleep apnea associate with higher risk of serious cardiovascular events: 5 years prospective cohort study in the primary care	Dr. CHIANG Lap Kin, KAM C.W., NG V. L.
04	Findings from the first public COVID-19 temporary test centre in Hong Kong	<b>Dr. Will L.H. LEUNG</b> , Ellen L.M. YU, WONG S.C., LEUNG M, Larry L.Y. LEE, CHUNG K.L., Vincent C.C. CHENG
05	Definitions and Prevalence of Multimorbidity in Large Database Studies: A Scoping Review	Ms. CHUA Ying Pin, XIE Y., Sabrina P.S. LEE, LEE E.S.

# Full Research Paper Competition - Novice Research Paper

# FULL 01

Utilization rate of non-vitamin K antagonist oral anticoagulant, and associated factors of non-vitamin K antagonist oral anticoagulant refusal in non-warfarinised atrial fibrillation patients — A study in Hong Kong general out-patient clinic

**CHEN Liujing** 

### **Objective:**

To evaluate the updated utilization rate of non-vitamin K antagonist oral anticoagulant (NOAC) and associated factors of NOAC refusal in non-warfarinised atrial fibrillation (AF) patient.

### Design:

A cross sectional study.

### Subjects:

All the non-warfarinised AF patients, who were regularly followed up in two public general out-patient clinics (GOPC) from November 2019 to March 2020, aged older than 18 years, and eligible for NOACs.

### Main outcome measures:

Updated utilization rate of NOAC in non-warfarinised AF patient.

The associated factors of NOAC refusal in non-warfarinised AF patient.

### **Results:**

A total of 324 patients were included during the study period. Utilization rate of NOAC in non-warfarinised AF patient was 54%. Multivariate analysis revealed older age, higher financial strain score, lack of sponsor for NOAC and lower CHA2DS2-VASc score to be the factors that significant associated with NOAC refusal.

### **Conclusions:**

In our study, the updated utilization rate of NOAC in non-warfarinised AF patient in local GOPC was 54%, which showed still room for improvement. The associated factors of NOAC refusal highlighted the importance of financial support to promote the entry of the NOAC. Further research and strategy to improve guideline attainment should focus on the subgroup patients of older age and lower CHA2DS2-VASc score.

Keywords: Atrial fibrillation, anticoagulation, non-vitamin K antagonist oral anticoagulant, Hong Kong, Primary care

# Full Research Paper Competition - Full Research Paper

# **FULL 02**

# Effects of a telecare case management program for homebound older adults during the COVID-19 pandemic: A pilot randomized clinical trial

Arkers Kwan Ching WONG<sup>1</sup> PhD, RN, Frances Kam Yuet WONG<sup>1</sup> PhD, RN, Karen Kit Sum CHOW<sup>2</sup> MSc. RSW. Siu Man WONG<sup>2</sup> MSc. RSW

### Importance:

Homebound older adults can be difficult to reach due to their functional limitations and social distancing during the pandemic, leaving their health needs unrecognized at an earlier stage. This study aims to empower the vulnerable homebound older adults with enhanced confidence in undertaking self-management in the community.

### **Objective:**

To determine the effectiveness of a telecare case management program for homebound older adults during the COVID-19 pandemic.

### **Design, Setting and Participants:**

This was a randomized clinical trial conducted in Hong Kong from May 21, 2020, to July 20, 2020, with a last follow-up date of October 20, 2020. This study adopted a single-blinded design, where the data collector was blinded but the participants and healthcare providers were not. Inclusion criteria were being aged 60 or over with a smartphone and going outside less than once a week in the previous six months.

### Interventions:

Participants in the telecare group received 1) weekly nurse case management supported by a social service team via phone call and 2) weekly video messages covering self-care topics delivered via smartphone for three months; participants in the control group received monthly social calls.

### **Main Outcomes and Measures:**

The primary outcome was the change in general self-efficacy from pre-intervention to post-intervention at three months. It is measured by the Chinese version of the 4-point Likert General Self-Efficacy Scale, with higher scores representing higher self-efficacy levels.

#### Results:

A total of 68 participants (control 34, intervention 34) who fulfilled the criteria were enrolled. Compared with participants in the control group, participants in the telecare group had significantly better self-efficacy (2.71 [95%CI, 0.66 to 4.75], p=.010) after the three-month program. There were also significant between-group effects on medication adherence (-7.43 [95%CI, -11.18 to -3.67], p=.001) and quality of life (PCS: 4.94 [95% CI, 2.02 to 7.86], p=.001; MCS: 3.42 [95% CI, 0.74 to 6.09], p=.012).

### **Conclusions and Relevance:**

In this randomized clinical trial, participants who received the telecare program had better self-efficacy, medication adherence, and quality of life than the control group, though small sample size may limit its generalizability. Future large-scale study is needed to confirm this favourable result.

**Trial registration:** Clinicaltrials.gov Identifier: NCT04304989.

<sup>&</sup>lt;sup>1</sup> School of Nursing, The Hong Kong Polytechnic University, Hung Hom, Hong Kong

<sup>&</sup>lt;sup>2</sup> The Hong Kong Lutheran Social Service, Homantin, Hong Kong

# Full Research Paper Competition - Full Research Paper

# FULL 03

Overnight pulse oximetry screening positive obstructive sleep apnea associate with higher risk of serious cardiovascular events: 5 years prospective cohort study in the primary care

### Chiang LK, Kam CW, Ng V L

Kwong Wah Hospital General Outpatient Clinic, Hong Kong Hospital Authority, Hong Kong

### Aim:

To investigate whether overnight pulse oximetry screening positive obstructive sleep apnea independently increases the risk of stroke or coronary artery disease.

### **Design and Setting:**

This is a prospective cohort study involving consecutive patients whom had performed OSA screening by overnight pulse oximetry in a primary care clinic of Hong Kong from year 2011 to year 2012.

### Methodology:

One hundred and eighty consecutive OSA screening postive patients were the cohort group while 180 consecutive OSA screening negative patients were the control group. The five year incidence of serious cardiovascular complications and associated predictive factors were examined.

### **Results:**

Both of cohort and control group patients were followed prospectively for 5 years. There was higher proportion of male (68.3% versus 45.0%, p<0.001) and obesity (58.3% versus 41.1%, p=0.001) patients in the cohort group. There was no statistical difference in concomitant chronic disease or difference in mean blood pressure and Epworth Sleepiness Scale (ESS) score among two groups. At five year follow up, there was no cardiovascular related mortality among two groups. The five year relative risk (RR) of screening positive OSA versus screening negative for serious cardiovascular event is 3.03 (95% CI, 1.16-7.86; p=0.018). By stratification, the relative risk for stroke is 1.69 (95% CI, 0.40-7.16; p=0.475), while for coronary artery disease (CAD) is 4.24 (95%CI, 1.18-15.29; p=0.017).

#### **Conclusions:**

Overnight pulse oximetry screening positive obstructive sleep apnea is the independent risk factor for coronary artery disease.

Keywords: Obstructive sleep apnea, overnight pulse oximetry, stroke, coronary artery disease



# Full Research Paper Competition - Full Research Paper

# FULL 04

# Findings from the first public COVID-19 temporary test centre in Hong Kong

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- <sup>5</sup> MBBS (NSW), FHKAM (EmergencyMedicine); Department of Accident and Emergency, Tin Shui Wai Hospital, Hong Kong
- <sup>6</sup> MBBS (HK), FHKAM (EmergencyMedicine); Quality & Safety Division, Hospital Authority, Hong Kong
- <sup>7</sup> MBBS (HK), MD; Department of Microbiology, Queen Mary Hospital, Hong Kong

### Introduction:

The Hospital Authority of Hong Kong Special Administrative Region established a coronavirus disease 2019 (COVID-19) temporary test centre at the AsiaWorld-Expo from March 2020 to April 2020, which allowed high-risk individuals to undergo early assessment of potential severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. This study reviewed the characteristics and outcomes of individuals who attended the centre for COVID-19 testing.

#### **Methods:**

This retrospective cross-sectional study collectedepidemiological and clinical data. The primary outcome was a positive or negative SARS-CoV-2 test result, according to reverse transcription polymerase chain reaction analysesof pooled nasopharyngeal and throat swabs collected at the centre. The relationshipsof clinical characteristicswith SARS-CoV-2 positive test results were assessed by multivariable binary logistic regression.

### **Results:**

Of 1258 attendees included in theanalysis,86 individuals tested positive for SARS-CoV-2 infection (positivity rate=6.84%; 95% confidence interval [CI]=5.57%-8.37%). Of these 86 individuals, 40(46.5%) were aged 15 to 24 years and 81 (94.2%) had a history of recent travel. Symptomswere reported by86.0% and 96.3% of individuals with positive and negative test results, respectively. The clinical characteristics most strongly associated with a positive test result were anosmia (adjustedodds ratio  $[OR_{ad}]$ =8.30; 95% CI=1.12-127.09) and fever  $(OR_{ad}=1.32; 95\% CI=1.02-3.28)$ .

#### **Conclusions and Relevance:**

The temporary test centre successfullyhelped identifyingindividuals with COVID-19who exhibited mild disease symptoms. Healthcare providers should carefully consider the epidemiological and clinical characteristicsof COVID-19in ensuringearly testing arrangement toreduce community spread.

#### New knowledge added by this study

- A temporary test centre during the coronavirus disease 2019 (COVID-19) pandemic was effective for the identification of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection among individuals who exhibited mild disease symptoms.
- At the temporary testcentre at AsiaWorld-Expo,a greaterproportion of infected individuals were aged 15 to 24 years (46.5%), compared
  with the proportion (26.7%) in a previously described age-matched population in Hong Kong, presumably because of the targeted
  testing strategy used at the centre.
- Inour relatively healthy population of individuals with mild disease symptoms and epidemiological linkageto COVID-19, 6.84% had
  positive test results.

#### Implications for clinical practice or policy

- In some individuals, COVID-19 causes mild initial symptoms despite its high infectivity; thus, there is a need for early identification of individuals with SARS-CoV-2 who exhibit mild symptoms.
- The temporary test centre was successful in identifying infected individuals in a large-scale, high-turnover setting, therebyreducing the
  testingburden in secondary and tertiary healthcare facilities.
- Gatekeeping healthcare providers should carefully considerthe epidemiological and clinical manifestations of COVID-19 and be vigilant in arranging appropriate early testing to reduce community spread.

Key words: COVID-19; Hong Kong; temporary test centre; primary care providers



# Full Research Paper Competition - Novice Research Paper

# **FULL 05**

# **Definitions and Prevalence of Multimorbidity in Large Database Studies: A Scoping Review**

Ying Pin Chua<sup>1</sup>, Ying Xie<sup>2</sup>, Poay Sian Sabrina Lee<sup>2</sup> and Eng Sing Lee<sup>12</sup>

<sup>1</sup> Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

### **Background:**

Multimorbidity presents a key challenge to healthcare systems globally. However, heterogeneity in the definition of multimorbidity and design of epidemiological studies results in difficulty in comparing multimorbidity studies. This scoping review aimed to describe multimorbidity prevalence in studies using large datasets and report the differences in multimorbidity definition and study design.

#### Methods:

We conducted a systematic search of MEDLINE, EMBASE, and CINAHL databases to identify large epidemiological studies on multimorbidity. We used the Preferred Reporting Items for Systematic Reviews and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) protocol for reporting the results.

#### Results:

Twenty articles were identified. We found two key definitions of multimorbidity: at least two (MM2+) or at least three (MM3+) chronic conditions. The prevalence of multimorbidity MM2+ ranged from 15.3% to 93.1%, and 11.8% to 89.7% in MM3+. The number of chronic conditions used by the articles ranged from 15 to 147, which were organized into 21 body system categories. There were seventeen cross-sectional studies and three retrospective cohort studies, and four diagnosis coding systems were used.

#### **Conclusions:**

We found a wide range in reported prevalence, definition, and conduct of multimorbidity studies. Obtaining consensus in these areas will facilitate better understanding of the magnitude and epidemiology of multimorbidity.

**Keywords:** multimorbidity; prevalence; definition; large database

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# Clinical Case Presentation Competition - Schedule

# 1 August 2021 (Sunday)

TIME	TOPIC	PRESENTING AUTHOR
09:40 - 09:55	Cysticercosis	Dr. WONG Chung Ming
09:55 – 10:10	A case of Hashimoto thyroiditis evolving into Graves's disease.	Dr. Michelle S.S. FU
10:10 - 10:25	Implementation a program to have early access to physiotherapy prior to first visit for Orthopaedics and Traumatology consultation on stable back cases: contribute to better health outcomes	Ms. Cecilia K.N. YEUNG
10:25 - 10:40	Multidisciplinary Breast Cancer Rehabilitation Program in Kwong Wah Hospital	Ms. Jess F.P. LI



# Free Paper Competition -

# **Schedule of Oral Presentation**

# **31 July 2021 (Saturday)**

TIME	No.	TOPIC	PRESENTATION GROUP		
	17:05-19:00 (Part I)				
17:10 – 17:25	Oral_07	A 10-year costing analysis of the Risk Management and Assessment Programme for primary care patients with diabetes mellitus in Hong Kong	Dr. Ivy L. MAK Eric H.M. TANG, Carlos K.H. WONG, Emily T.Y. TSE, Eric Y.F. WAN, Sarah McGHEE, Cindy L.K. LAM		
17:25 – 17:40	Oral_09	The impact of age of onset type 2 diabetes mellitus on risk of cardiovascular disease and mortality, and medical cost: A retrospective cohort study	Mr. Will H.G. CHENG Eric Y.F. WAN, Esther Y.T. YU, Ivy L. MAK, Kim CHAN, DONG W.N., WANG Y., Celine S.L. CHUI, Ian C.K. WONG, Cindy L.K. LAM		
17:40 – 17:55	Oral_11	Association between the trajectory of clinical parameters and the risk of cardiovascular disease and mortality in patients diagnosed with diabetes mellitus or hypertension: A systematic review	Mr. WANG Yuan Eric Y.F. WAN, Ivy L. MAK, Margaret K. HO, CHIN W.Y., Esther Y.T. YU, Cindy L.K. LAM		
17:55 – 18:10	Oral_05	Can Chronic Obstructive Pulmonary Disease (COPD) management be improved in primary care?- Hong Kong experience	Dr. Catherine X. R. CHEN FU S.N., LEUNG W.K., Catherine S.W. NG, Wendy K.W. KWAN, WONG T.K., CHAN P.F., Michelle M.Y. WONG, Welchie W.K. KO, LIANG J., Eric M.T. HUI, LI Y.C., LUK W., David V.K. CHAO		
18:10 – 18:25	Oral_01	Risk Prediction Model of 10-year Risk of End-Stage Renal Disease in Chinese Type 2 Diabetes Mellitus Patients in Primary Care	Mr. Dovey W.N. DONG Eric Y.F. WAN, Daniel Y.T. FONG, Ruby L.P. KWOK, David V.K. CHAO, Kathryn C.B. TAN, Eric M.T. HUI, Wendy W.S. TSUI, CHAN K.H., Colman S.C. FUNG, Cindy L.K. LAM		
18:25 – 18:40	Oral_06	Estimated lifetime cost-effectiveness of the Risk Assessment and Management Programme for primary care patients with Hypertension (RAMP-HT)	<b>Dr. Esther Y.T. YU</b> Eric Y.F. WAN, Eric H.M. TANG, Ivy L. MAK, Cindy L.K. LAM		



# Free Paper Competition -

# **Schedule of Oral Presentation**

# 1 August 2021 (Sunday)

TIME	No.	TOPIC	PRESENTATION GROUP	
	10:25 – 12:10 (Part II)			
10:30 - 10:45	Oral_08	Association between team-based continuity of care and risk of cardiovascular diseases among patients with diabetes mellitus: a retrospective cohort study	Ms. Kim K.S. CHAN Eric Y.F. WAN, W.Y. CHIN, Esther Y.T. YU, Ivy L. MAK, Will H.G. CHENG, Margaret K. HO, Cindy L.K. LAM	
10:45 – 11:00	Oral_03	Diabetes Care Programme (DCP) for People with Type 2 Diabetes Mellitus (T2DM) in Primary Care Setting - A Pilot Randomized Controlled Trial	Ms. Harriet H.Y. CHUNG CHIEN W.T.	
11:00 – 11:15	Oral_02	Comparative Risks of Non-Steroidal Anti-Inflammatory Drugs on Chronic Kidney Disease	Ms. Anna H.Y. MOK Eric Y.F. WAN, Esther Y.T. YU, Linda CHAN, WANG Y., Esther W.Y. CHAN, Ian C.K. WONG, Cindy L.K. LAM	
11:15 – 11:30	Oral_04	Effect and Acceptability of Mindfulness-Based Stress Reduction Program on Patients With Elevated Blood Pressure or Hypertension: A Meta-Analysis of Randomized Controlled Trials	<b>Dr. Eric K.P. LEE</b> Nelson C.Y. YEUNG, XU Z.J., Zhang D.X., YU C.P., Samuel Y.S. WONG	
11:30 – 11:45	Oral_10	Does Seeing the Same Doctor Matter? A Systematic Review on the Effects of Continuity of Care on Health Outcomes among Patients with Diabetes Mellitus and/or Hypertension	Ms. Margaret K. HO CHAN K.S., Eric Y.F. WAN, CHIN W.Y., Will H.G. CHENG, Esther Y.T. YU, Cindy L.K. LAM	
11:45 – 12:00	Oral_12	Exercise is medicine program for patients with hypertension and diabetes: A prospective cohort study	Ms. WEN Xin Eric K.P. LEE, James CHENG, Stanley S.C. HUI, Samuel Y.S. WONG	



# Free Paper Competition - Oral Presentation

# ORAL 01

# Risk Prediction Model of 10-year Risk of End-Stage Renal Disease in Chinese Type 2 Diabetes Mellitus Patients in Primary Care

Dovey W. Dong, Eric Y.F. Wan, Daniel Y.T. Fong, Ruby L.P. Kwok, David V. K. Chao, Kathryn C.B. Tan, Eric M.T. Hui, Wendy W.S. Tsui, K.H. Chan, Colman S.C. Fung, Cindy L.K. Lam

#### Introduction:

The prevalence of end-stage renal disease (ESRD) is up to ten times higher in diabetic patients than the general population. ESRD greatly impairs health related quality of life of the patients and incurs substantial health expenditure. Hence this study aimed to develop and validate a 10-year risk prediction model of ESRD in primary care Type 2 diabetes mellitus (T2DM) patients, in order to guide individualized treatment.

#### Methods:

This was a 10-year population-based observational cohort study. 141,516 Chinese T2DM patients without history of cardiovascular diseases or ESRD who were managed in Hong Kong public primary care clinics in 2008 were included and followed up until December 2017. Two thirds subjects were randomly selected to develop sex-specific ESRD risk prediction models by Cox regressions. The validity and accuracy of the models were tested on the remaining one third subjects by Harrell's C. We selected variables based on clinical and statistical importance to construct the nomograms and risk charts.

#### Results:

The median follow-up period was 9.75 years. The cumulative incidence of ESRD was 6.0% (Male: 6.1%, Female: 5.9%). Age, DM duration, SBP, SBP variability, DBP, TG, HbA1c, HbA1c variability, urine ACR, and eGFR were significant predictors for both sexes. Smoking and TC/HDL-C ratio were additional significant predictors for male and female, respectively. The models showed Harrell's C of 0.889/0.889 (female/male). Age, eGFR, urine ACR, SBP, HbA1c were selected for both sexes to develop simplified risk nomograms and charts. The risk model has been deployed as webbased calculator for clinical use.

### **Conclusions:**

Using routinely available parameters, the 10-year ESRD risk of primary care Chinese T2DM patients can be predicted with approximately 90% accuracy. We have developed different tools to facilitate routine ESRD risk prediction in primary care, so that individualized care can be provided to prevent or delay ESRD in T2DM patients.

**Keywords:** type 2 diabetes mellitus; risk prediction model; End-stage renal disease



# Free Paper Competition - Oral Presentation

## ORAL 02

# **Comparative Risks of Non-Steroidal Anti-Inflammatory Drugs on Chronic Kidney Disease**

Eric Y.F. Wan, Esther Y.T. Yu, Linda Chan, Anna H.Y. Mok, Yuan Wang, Esther W.Y. Chan, Ian C.K. Wong, Cindy L.K. Lam

### Introduction:

There have been doubts about the association between non-steroidal anti-inflammatory drugs (NSAIDs) use and worsening kidney function, and whether there is a difference between risks of individual NSAIDs is presently unclear. Therefore, this study aimed to evaluate the association between NSAID exposure and the risk of incident estimated glomerular filtration rate (eGFR) < 60 ml/min/1.73 m2 and compare the risks between NSAID subtypes in the Chinese population.

### **Methods:**

From 2008 to 2017, a total of 1,982,488 subjects aged 18 years or above with baseline eGFR  $\geq$  60 ml/min/1.73 m2 were enrolled in this retrospective cohort study. Multivariable cox proportional hazards regression adjusted for each patient's baseline characteristics was adopted to examine the association between NSAID and incident eGFR < 60 ml/min/1.73 m2 or eGFR decline  $\geq$  30% with reference to baseline.

#### Results:

After a median follow-up duration of 6.3 (interquartile range: (3.3,9.4)) years, 271,848 cases (14%) of incident eGFR < 60 ml/min/1.73 m2 and 388,386 (21%) events of eGFR decline  $\geq$  30% were recorded. After adjusting for each patient's baseline characteristics, NSAID treatment was shown to be associated with a significantly higher risk of incident eGFR < 60 ml/min/1.73 m2 (HR: 1.71 [95% CI: 1.67-1.75]) and eGFR decline  $\geq$  30% (HR: 1.93 [95% CI: 1.89-1.96] when compared with no NSAID, with etoricoxib exhibiting the highest risk of eGFR < 60 ml/min/1.73 m2 (HR: 3.12 [95% CI: 2.69-3.62]) and eGFR decline  $\geq$  30% (HR: 3.11 [95% CI: 2.78 -3.48] and ibuprofen displaying the lowest risk of eGFR < 60 ml/min/1.73 m2 (HR: 1.12 [95% CI: 1.02-1.23]) and eGFR decline  $\geq$  30% (HR: 1.32 [95% CI: 1.23 -1.41]).

#### Conclusions:

NSAID exposure was associated with higher risks of incident eGFR < 60 ml/min/1.73 m2 and eGFR decline  $\geq$  30%. Highest risk was observed in etoricoxib users, and lowest risk was with ibuprofen.

**Keywords:** Non-steroidal anti-inflammatory drugs; Chronic kidney disease; NSAIDs



# Free Paper Competition - Oral Presentation

## ORAL 03

# Diabetes Care Programme (DCP) for People with Type 2 Diabetes Mellitus (T2DM) in Primary Care Setting - A Pilot Randomized Controlled Trial

### Harriet H.Y. Chung & W.T. Chien

Chief Care Coordinator, Sham Shui Po District Health Centre Professor, the Director of the Nethersole School of Nursing, CUHK

### Introduction:

A structured DCP plays a vital role in effective diabetes management. In Hong Kong, many T2DM are being cared for by private GP, but no structured DCP is in place now. Therefore, a structured DCP for these patients in private sectors is needed to fill up the service gap and make it beneficial to optimize diabetes care. The objective of this study was to evaluate the effects of the DCP on the improvements in patients' glycemic control and diabetes self-care in the private primary care setting.

### **Methods:**

It was a pilot randomized controlled trial. Patients were recruited from four local private clinics between Dec 2019 and Nov 2020. They have been randomly assigned into "DCP (in addition to usual medical care)" or "Usual medical care only (UC)" groups. The DCP included three Diabetes Conversation Map™ sessions, set "Goals and Action Plans", and two follow-up teleconsultations by diabetes nurse. Outcome measurement included the average change of HbA1c, self-efficacy level, empowerment level, diabetes knowledge, and quality of life from baseline to post-intervention. DCP group also needed to complete the questionnaires immediately after the Map sessions. The statistical analyses used IBM SPSS (ver27.0), all variables were compared the changes with Paired-sample T-Test and subgroup analysis. The level of significance was at a two-sided significance level of 0.05. The actual behavioural changes were explained in categories and the percentage of the plan's implementation.

#### Results:

A total of 40 patients were recruited; five were withdrawn, and one died. These 34 patients completed the study (DCP, n=17; UC, n=17). The majority was male (61.8%), mostly at aged 36-75 (57.6+/-9.89), the diabetes duration was 1-22 years (7.04+/-5.23); 86.1% of them followed up at GP only. The analysis results showed the DCP group have significant changes in HbA1c (p=0.021), Diabetes Knowledge (p=0.000), and Self-Efficacy (p=0.051). A total of 39 goals with six topics were set in the DCP group during the Map sessions. Near 95% of them can implement the action plans towards their goals.

### **Conclusions:**

The results found significant improvements in HbA1c, Diabetes Knowledge and Self-Efficacy, and a high percentage of achievement in healthy living modification in the intervention group. This first study in the field showed a clinical benefit in applying a structured DCP for diabetics in the private primary care setting.

**Keywords:** Diabetes; T2DM; Primary



# Free Paper Competition - Oral Presentation

# ORAL 04

# Effect and Acceptability of Mindfulness-Based Stress Reduction Program on Patients With Elevated Blood Pressure or Hypertension: A Meta-Analysis of Randomized Controlled Trials

Eric K.P. Lee, Nelson C.Y. Yeung, Zijun Xu, Dexing Zhang, Chun-Pong Yu, Samuel Y.S. Wong

### Introduction:

The mindfulness-based stress reduction program (MBSR) may reduce blood pressure (BP) in patients with hypertension or elevated BP. However, some important parameters (such as asleep BP) have not been investigated in previous reviews, and a well-conducted meta-analysis is lacking.

### **Methods:**

This meta-analysis investigates the effect and acceptability of MBSR on patients with elevated BP or hypertension. Relevant articles were searched in multiple databases, including MEDLINE, EMBASE, and APA PsycInfo. Included studies were randomized controlled trials that involved patients with an elevated BP, had a control group, and investigated the effect of MBSR. The mean office and out-of-office (including 24-hour, daytime, and asleep) systolic BP and diastolic BP, psychological outcomes (depression/anxiety/stress), and dropout rate were compared between the MBSR arm and the control arm using a random-effects model. Quality assessment was conducted based on the Cochrane risk-of-bias tool.

### **Results:**

Twelve studies were included, and only one was considered having low risk of bias. MBSR decreased the office systolic BP and diastolic BP by 6.64 and 2.47 mm Hg at postintervention, respectively; the reduction in diastolic BP was sustained until 3 to 6 months after the recruitment. Our meta-analyses did not find a significant reduction in out-of-office BP after MBSR. MBSR reduced depressive, anxiety, and stress symptoms. The dropout rate from MBSR arm was 15% and was similar to that of control arm. The current evidence is limited by lack of high-quality and adequately powered trials with long-term follow-up. Furthermore, out-of-office BP was only reported by few trials.

### **Conclusions:**

MBSR is acceptable to patients and can reduce office BP, stress level, and mood symptoms. More long-term, adequately powered, and high-quality RCTs are needed. Such RCTs should consider out-of-office BP measurements.

**Keywords:** mindfulness; hypertension; elevated blood pressure



# Free Paper Competition - Oral Presentation

# ORAL 05

# Can Chronic Obstructive Pulmonary Disease (COPD) management be improved in primary care? - Hong Kong experience

Catherine XR Chen, SN Fu, WK Leung, Catherine SW Ng, Wendy KW Kwan, TK Wong, PF Chan, Michelle MY Wong, Welchie WK Ko, J Liang, Eric MT Hui, YC Li, W Luk, David VK Chao

### Introduction:

Chronic obstructive pulmonary disease (COPD) is a progressive lung disease that have imposed a substantial economic and social burden to the health care system. This study aimed to review the management of COPD cases from all primary care clinics of the Hospital Authority of Hong Kong (HAHK) via a two phase clinic audit and to share out the improvement strategies.

### **Methods:**

COPD patients aged 40 or above and had attended any of the 73 public primary care clinics under the HAHK for follow up during the audit period were included. Performance of six evidence-based audit criteria on COPD care was reviewed in phase 1 from 1st April 2017 to 31st March 2018. Service gaps were identified and a series of quality improvement strategies were executed in the one-year implementation phase. The outcome of the service enhancement was assessed in phase 2 from 1st April 2019 to 31st March 2020. Student's t test and Chi-square test were used to examine the statistically significant differences between the two phases.

#### Results:

Totally 10,385 COPD cases were identified in Phase 1, majority were male (87.7%) and the mean age was 75.3±9.9 years. Among the 3,102 active smokers, 1,788 (57.6%) were referred to receive the smoking cessation counselling and 1,578 (50.9%) actually attended it. 4,866 cases (46.9%) received Seasonal Influenza Vaccine (SIV) and 4,227 cases (40.7%) received Pneumococcal Vaccine (PCV). 1,983 patients (19.1%) had spirometry test done before and 1,327 patients (12.8%) had history of hospital admission due to acute exacerbation of COPD (AECOPD). After the proactive implementation phase, performance on all criteria were significantly improved in phase 2, with a marked increase in the SIV and PCV uptake rate and spirometry performance rate. Most importantly, a significant reduction in AECOPD rate leading to hospital admission had been achieved (9.6%, P<0.00001).

### **Conclusions:**

COPD care at all public primary care clinics of HAHK had been significantly improved for all audit criteria via the systematic team approach, which in turn reduced the hospital admission rate and helped relieve the burden of the healthcare system. This Hong Kong experience has provided an important reference for similar improvement projects on COPD care internationally.

**Keywords:** COPD; primary care; quality improvement



# Free Paper Competition -

# **Oral Presentation**

# **ORAL 06**

# Estimated lifetime cost-effectiveness of the Risk Assessment and Management Programme for primary care patients with Hypertension (RAMP-HT)

### Esther Y.T. Yu, Eric Y.F. Wan, Eric H.M. Tang, Ivy L. Mak, Cindy L.K. Lam

Esther Y.T. Yu - Clinical Assistant Professor, Department of Family Medicine and Primary Care, The University of Hong Kong Eric Y.F. Wan - Assistant Professor, Department of Family Medicine and Primary Care, The University of Hong Kong Eric H.M. Tang - Research Coordinator, Department of Family Medicine and Primary Care, The University of Hong Kong Ivy L. Mak - Postdoctoral Fellow, Department of Family Medicine and Primary Care, The University of Hong Kong Cindy L.K. Lam - Head of the Department, Department of Family Medicine and Primary Care, The University of Hong Kong

#### Introduction:

The multi-disciplinary Risk Assessment and Management Programme - Hypertension (RAMP-HT) has proven effectiveness in reducing hypertension-related complications and mortality among hypertensive patients after 5 years, thus potentially lessening healthcare burden. This study aims to estimate the cost-effectiveness of RAMP-HT over lifetime.

### **Methods:**

A lifetime cost-effectiveness analysis from health service provider's perspective was conducted using Markov modelling. Empirical data from a propensity-score-matched cohort of 79,161 RAMP-HT participants and 79,161 usual primary care patients with hypertension was used to estimate public direct medical costs and gender-specific annual transition probabilities of developing hypertension-related complications, including coronary heart disease, stroke, heart failure and end stage renal disease. The mortality of patients with specific hypertension-related complications was estimated from a cohort of 327,842 primary care patients with hypertension. Surveys on private direct medical costs and health preference of hypertensive patients with different complication status were conducted on 486 and 873 patients, respectively. Incremental cost-effectiveness ratios (ICER) was calculated by the ratio difference of direct medical cost to difference of quality-adjusted-life-year (QALY) gained between RAMP-HT participants and usual care patients. Probabilistic sensitivity analysis was presented as a cost-effectiveness acceptability curve.

#### **Results:**

A RAMP-HT participant was estimated to save HK\$5,569 (HK\$338,050 vs HK\$343,619), gain 0.20 QALYs (12.49 QALYs vs 12.29 QALYs) and 0.19 life years (LYs) (14.64 LYs vs. 14.45 LYs), compared to a patient received usual care on average. Probabilistic sensitivity analysis showed that RAMP-HT had 100% chance of being cost-saving and dominated over usual care. The positive effect of RAMP-HT was greater if the duration of the intervention lasted longer.

#### **Conclusions:**

RAMP-HT was projected to be a cost-saving intervention compared to usual care in preventing hypertension-related complications and mortality over the lifespan of a hypertensive patient. Further study should be conducted to inform who will and how to benefit most from the RAMP-HT intervention.

**Keywords:** Hypertension; Cost-effectiveness; Multidisciplinary



# Free Paper Competition - Oral Presentation

# **ORAL 07**

# A 10-year costing analysis of the Risk Management and Assessment Programme for primary care patients with diabetes mellitus in Hong Kong

### Ivy L Mak, Eric HM Tang, Carlos KH Wong, Emily TY Tse, Eric YF Wan, Sarah McGhee, Cindy LK Lam

ILM: Postdoctoral fellow, Department of Family Medicine and Primary Care, Li Ka Shing Faculty of Medicine, The University of Hong Kong
EHMT: Research Coordinator, Department of Family Medicine and Primary Care, Li Ka Shing Faculty of Medicine, The University of Hong Kong
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SM: Honorary Professor, School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong CLKL: Professor, Department of Family Medicine and Primary Care, Li Ka Shing Faculty of Medicine, The University of Hong Kong

### Introduction:

Economic evaluation of healthcare programmes has important policy implications on directing resource allocation for chronic disease management. The Risk Management and Assessment Programme – Diabetes Mellitus (RAMP-DM) is a protocoldriven, multicomponent and interdisciplinary programme for diabetes care implemented in public primary care. This study aims to estimate the total and annualized costs at the patient-level for RAMP-DM over 10 years.

### **Methods:**

A costing analysis using data collected from surveys and the Hospital Authority (HA) Clinical Management System was conducted retrospectively at the cluster and clinic (2 per cluster) levels from all seven HA clusters, and the HA Head Office. Direct costs incurred between 1st April 2009 and 31st March 2019 were collected using a micro-costing approach, where the type and resources used for implementation and delivery of RAMP-DM were recorded. Costs were estimated from the healthcare provider perspective, and partitioned into fixed and ongoing costs. Fixed-cost are costs incurred for setting up and maintenance of the program, including personnel training, equipment and infrastructure. Ongoing costs for delivering RAMP-DM services was determined based on the duration of interventions and resources used.

### **Results:**

A total of 387,904 patients were enrolled in RAMP-DM over 10 years. The average total program cost for RAMP-DM over 10 years was HK\$2,715 (range: \$1,469-4,910) per patient. This estimate was based on HK\$110 (\$92-433; 4%) in fixed costs, HK\$1,939 (\$1,244-2,787; 71%) in ongoing RAMP-DM service costs and HK\$666 (\$133-1,690; 25%) in administrative costs. The average unit cost per RAMP-DM intervention per patient was HK\$225 (\$188-250), of which personnel costs accounted for 94-97% of total costs per intervention.

### **Conclusions:**

Detailed cost information is essential for understanding the levels and types of resources necessary for implementation, and upkeeping of RAMP-DM or similar chronic disease management programs in the future. The results will directly input into a cost-effectiveness analysis for RAMP-DM.

Keywords: costing analysis; healthcare costs; diabetes mellitus



# Free Paper Competition - Oral Presentation

# ORAL 08

Association between team-based continuity of care and risk of cardiovascular diseases among patients with diabetes mellitus: a retrospective cohort study

Kim K.S. Chan, Eric Y.F. Wan, W.Y. Chin, Esther Y.T. Yu, Ivy L. Mak, Will H.G. Cheng, Margaret K. Ho, Cindy L.K. Lam

#### Introduction:

Cardiovascular diseases (CVD) are a long-term sequela of diabetes mellitus (DM) and better continuity of care (COC) is a potential strategy to reduce the risk of chronic complications. Maintaining a one-to-one patient-physician relationship can be challenging and is often not feasible in public healthcare settings. This study aimed to evaluate the effect of team-based COC, defined as attendance to consultations given by a single physician team, on the development of CVD among DM patients in public clinics.

#### **Methods:**

This was a retrospective cohort study of 316,253 DM patients without CVD who had at least one attendance of physician consultation between 2008-2018. Team-based COC was measured using the Usual Provider Continuity Index (UPCI), which was calculated from the physician team records of all attendance to physician consultation in the two-years prior to baseline. Patients were divided into quartiles based on their UPCI and adjusted using propensity fine stratification weightings. Multivariable cox regression was applied to assess the effect of team-based COC on the development of CVD.

#### Results:

After a follow-up of 2,142,492 person-years, the total number of CVD events was 53,272. Compared to patients in the 1st quartile, patients in the 2nd, 3rd and 4th quartiles had a CVD hazard ratio (HR)(95% confidence intervals(CI)) of 0.94(0.92-0.97); 0.91(0.89-0.94) and 0.86 (0.84-0.89) respectively. Patients with higher team-based COC had lower HRs for various CVD subtypes and mortality. Subgroup analysis found that DM patients who were male, aged 65 or higher or with a Charlson comorbidity index less than 4 received larger benefits from higher team-based COC.

### **Conclusions:**

Team-based COC is associated with lower CVD risk among DM patients, especially for males, younger patients and those with fewer comorbidities. It will be beneficial to implement team-based COC on the medical care of DM patients.

Keywords: continuity of care; diabetes mellitus; cardiovascular diseases



# Free Paper Competition -

# **Oral Presentation**

# ORAL 09

# The impact of age of onset type 2 diabetes mellitus on risk of cardiovascular disease and mortality, and medical cost: A retrospective cohort study

Eric Y.F. Wan, Esther Y.T. Yu, Ivy L. Mak, Will H.G. Cheng, Kim Chan, Weinan Dong, Yuan Wang, Celine S.L. Chui, Ian C.K. Wong, Cindy L.K. Lam

#### Introduction:

Amid the rising incidence with decreasing age of onset, only limited studies have evaluated the effects of age of onset of T2DM on risk of cardiovascular disease (CVD) and mortality, and medical cost against people without T2DM.

### **Methods:**

A cohort of 170,389 newly-diagnosed T2DM patients with 3,248,907 age-matched non-DM controls were formed from Hong Kong Hospital Authority's record between 2008-2013, which was then stratified into six groups based on age at baseline (18-39; 40-49; 50-59; 60-69; 70-79; ≥80). Multivariable Cox regression evaluated the association between T2DM and risk of CVD and mortality across age. The effect of age of onset on the medical cost was evaluated by log-linked Gamma generalized linear model.

### **Results:**

After 9.5 median follow-up years (around 30 million person-years), a total of 211,305 CVD events and 258,268 mortality were recorded. T2DM was associated with increased CVD and mortality risk, but the risks decreased with age. The hazard ratio (95% CI) for CVD associated with T2DM onset at the age 18-39 was 3.57 (2.94-4.33), which was much higher than the risk associated with T2DM onset at age 60-69 (HR: 1.11 (1.08-1.14)) and at age  $\geq$ 80 (HR: 1.02 (0.98-1.06)). Similarly, the risk of mortality among young onset of T2DM with age at 18-39 (HR: 2.17 (1.80-2.63)) were higher than those with age 60-69 (HR: 1.14 (1.11-1.18)) and age  $\geq$ 80 (HR: 1.08 (1.05-1.11)). The risk ratio (95% CI) of annual direct medical cost for T2DM onset at age 18-39 relative to the control group (3.50 (3.01-4.06)) was much higher than those for a later onset, such as at age 60-69 (1.31 (1.26-1.35)) and at age  $\geq$ 80 (1.35 (1.30-1.40)).

### **Conclusions:**

Young age of onset of T2DM is associated with great impacts on cardiovascular health later in life. This highlights the urge for stringent control of risk factors to prevent T2DM in young adults.

Keywords: Young age of onset; Type 2 diabetes mellitus; Cardiovascular disease risk



# Free Paper Competition - Oral Presentation

## **ORAL 10**

# Does Seeing the Same Doctor Matter? A Systematic Review on the Effects of Continuity of Care on Health Outcomes among Patients with Diabetes Mellitus and/or Hypertension

Kam-Suen Chan, Eric Yuk-Fai Wan, Weng-Yee Chin, Will Ho-Gi Cheng, Margaret Kay Ho, Esther Yee-Tak Yu, Cindy Lo-Kuen Lam

#### Introduction:

The rising prevalence of non-communicable diseases (NCD), such as diabetes mellitus (DM) and hypertension (HT), has placed a tremendous burden on healthcare systems in many parts of the world. This has resulted in a need for more effective delivery models. A high level of continuity of care (CoC) has been associated with improved health outcomes. This review aims to examine the association between CoC and health outcomes in patients with DM and/or HT patients.

#### Methods:

Literature searches were conducted in PubMed, Embase, MEDLINE and CINAHL plus. Eligible studies were those that published in English from 2000 onwards, included adult DM and/or HT patients, examined continuity of care as their main intervention/exposure, and utilised quantifiable outcome measures, which were categorised into health indicators and service utilisation.

### **Results:**

Database search yielded 21,090 results. Of these, 42 studies were included for the review. High CoC was associated with reductions in hospitalisation (16 out of 18 studies), emergency room attendances (eight out of eight), mortality rate (six out of seven), disease-related complications (seven out of seven), and healthcare expenses (four out of four) but not with blood pressure (two out of 13), lipid profile (one out of six), body mass index (zero out of three). Half of the 12 reviewed studies reported significant improvement in haemoglobin A1c by higher CoC. Assessment inconsistency in continuity of care and outcomes were identified as limitations to identifying significant results. Quality evaluation showed a lack of adjustment on confounding factors among included studies.

### **Conclusions:**

Continuity of care reduces mortality rate or health service utilisation among DM and/or HT patients. However, its effect on various health indicators is less definite. There is significant heterogeneity in assessments of CoC and patient outcomes. Further studies, with more comprehensive adjustment on confounding and standardised definition of CoC, are required to evaluate its effectiveness on improving health outcomes of patients with NCD.

**Keywords:** Continuity of care; Diabetes mellitus; Hypertension



# Free Paper Competition -

# **Oral Presentation**

### **ORAL 11**

Association between the trajectory of clinical parameters and the risk of cardiovascular disease and mortality in patients diagnosed with diabetes mellitus or hypertension: A systematic review

Y. Wang, Eric Y.F. Wan, Ivy L. Mak, Margaret K. Ho, W.Y. Chin, Esther Y.T. Yu, Cindy L.K. Lam.

### Introduction:

Cardiometabolic factors should be monitored regularly for patients with diabetes mellitus (DM)/ hypertension (HT). In addition to the levels of risk factors at a single time point, it is increasingly apparent their changes over time i.e. the trajectory, may be differentially related to the risk of cardiovascular diseases (CVD) and mortality. This study aimed to systematically review evidence on the association between trajectories of risk factor changes and risk of CVD/mortality among patients with DM/HT.

### **Methods:**

The databases PubMed, MEDLINE, and Embase were searched for articles dated from January 1963 to April 2021. Studies were included if: 1) analyzed trajectories of risk factors including haemoglobin A1c (HbA1c), blood pressure, estimated glomerular filtration rate (eGFR), body mass index (BMI), and blood lipids, 2) performed in the DM/HT population and, 3) included risk of CVD/mortality as outcomes.

### **Results:**

A total of 22,099 articles were identified. Eleven articles were retained for data collection, where 7, 3, and 1 article investigated the trajectories of HbA1c, systolic blood pressure (SBP), and eGFR respectively, with none on BMI or lipids trajectory. In general, the stable trajectories of risk factors within optimal ranges (HbA1c: 6-7.5%, SBP: 120-140mmHg, eGFR: >60mL/min/1.73m2) over time had the lowest CVD/mortality risk compared to an increasing HbA1c trajectory (from 8% to 10%), an increasing SBP trajectory (from 120-139 to ≥140mmHg), or a decreasing eGFR trajectory (from 90 to 70mL/min/1.73m2). Additionally, a fluctuating HbA1c trajectory (from 8% to 11% then back to 8% over 10 years) was associated with higher CVD risk than the stable one (7-7.5%) after adjustment for mean HbA1c levels over time.

### **Conclusions:**

A relatively stable and well-controlled trajectory for cardiometabolic risk factors was associated with the lowest risk of CVD/mortality. More attention should be given to patients with not only suboptimal levels but also with high variability over time.

**Keywords:** trajectory; risk factor; cardiovascular disease



# Free Paper Competition -

# **Oral Presentation**

# **ORAL 12**

# Exercise is medicine program for patients with hypertension and diabetes: A prospective cohort study

### Xin Wen<sup>1</sup>, Eric K.P. Lee<sup>2</sup>, James Cheng<sup>3</sup>, Stanley S.C. Hui<sup>4</sup>, Samuel Y.S. Wong<sup>5</sup>

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- <sup>4.</sup> Professor at Department of Sports Science and Physical Education, The Chinese University of Hong Kong
- <sup>5</sup> Director at The Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong

#### Introduction:

Physical exercise is an essential part of hypertension (HT) and diabetes mellitus (DM) management. However, physical inactivity remains epidemic. Furthermore, there is yet a widely adopted exercise program for patients with HT/DM and efficacy of these exercise programs is yet investigated in "real-life" settings.

### **Methods:**

The "exercise is medicine" (EIM) program, which included a structured 12-week exercise class, was designed by sports medicine and family medicine academics. The EIM program incorporates multiple strategies and techniques such as IT support, self-monitoring and motivational interviewing to help patients to build and maintain their exercise habit. Since November 2019, patients with HT/DM were recruited from general outpatient clinics by healthcare professionals' referral or self-referrals. Physical parameters before and immediately after the exercise classes were compared by t-test or Wilcoxon signed rank test for continuous variables and Chi-square test/fisher-exact test for categorical variables.

### **Results:**

134 participants finished the exercise classes. Their mean age was  $64.3\pm7.4$  years and 70.9% were females. After the exercise classes, patients had improvements in systolic blood pressure (BP) (133.0 $\pm$ 19.5 mmHg versus 129.0 $\pm$ 15.0 mmHg, p=0.004), diastolic BP (76.5 $\pm$ 13.1 mmHg versus 75.0 $\pm$ 12.5 mmHg, p=0.046), fat percentage (33.9%29.6% versus 33.7% $\pm$ 10.1%, p=0.016), waist circumference (91.0 $\pm$ 14.4 cm versus 89.0 $\pm$ 12.0 cm, p=0.014), and high density lipoprotein (1.3 $\pm$ 0.5 mmol/L versus 1.4 $\pm$ 0.5 mmol/L, p<0.001). Furthermore, participants had increase in muscle mass (22.1 $\pm$ 7.6 kg versus 22.6 $\pm$ 6.8 kg, p=0.001).

### **Conclusions:**

EIM program is feasible in Hong Kong primary care and can help patients establish exercise habits. Preliminary results showed that EIM can improve control of BP and other physical parameters. The EIM program is undergoing and we await results from further recruitment and long term follow-up.

**Keywords:** Exercise; Hypertension; Diabetes



# Free Paper Competition - Poster Presentation

No.	PRESENTATION TOPIC	AUTHORS (The name of the presenting author is underlined)
01	Interdisciplinary Approach to Enhance Quality of Care for Diabetic Patients on Insulin Therapy in Primary Care	<u>Dr. Brendan C.Y. WU</u> , Vivian H.M. YIP, Inness K.Y. WAN, LAU S.H.
02	Burnout among Family Medicine Doctors during COVID-19 Pandemic: We Care, We Explore and We Support	Dr. Joanne Y.W. N.G., Shirley Y.K. CHOI, York M.K. CHOI, Arthur H.Y. CHUNG, Maria K.W. LEUNG
03	Exercise Barriers of Knee Osteoarthritis Patients during COVID-19 Pandemic	Dr. Joanne Y.W. NG, Shirley Y.K. CHOI, Christina CHEUK, Lawrence C.M. LAU, LEE M.K., Ken P.K. FUNG, Regina W.S. SIT, Maria K.W. LEUNG
04	The Effectiveness of Designated Skin Service in a GOPC Run by Family Physician with Special Interest in Dermatology and Dermoscopy	Dr. LUK Chun Wa, WU C.Y., YIU M.P., WAN K.Y., CHAN C.W., YIU Y.K., LUK W.
05	The Application of Dermoscopy in General Outpatient Clinic (GOPC) – From paper to practice	Dr. LUK Chun Wa
06	Skin scraping for scabies mite in KWC GOPC: efficacy in our practice and the improvement strategies	Dr. YIU Ming Pong, WU CY., LUK C.W.
07	The effectiveness of nurse counseling session before doctor consultation for insulin initiation	<b>Dr. LEUNG Shuk Yun</b> , LAU W.H., Ingrid K.Y. TSANG, CHUNG W.H., LAI M.L., Caroline W.H. CHIU, Maria K.W. LEUNG
08	Impact of COVID-19 Pandemic on healthcare seeking behaviour in Public Primary Care: a Retrospective Study in New Territories East Cluster (NTEC)	Dr. HAN Jinghao, Regina W.S. SIT, Shirley Y.K. CHOI, WANG B., Maria K.W. LEUNG
09	"New Normal" in Primary Health Care under COVID-19 Pandemic	Ms. LAI Mei Ling, Caroline W.H. CHIU, LEUNG S.Y., Maria K.W. LEUNG, Elsie HUI
10	Evaluation of a Family Medicine Orthopaedics (FM-ORT) Multidisciplinary Low Back Pain Care Delivery Model: Allocating Appropriate Patient to Appropriate Level of Care at Appropriate Time	Dr. CHOI Yue Kwan, LAW S.W., WONG W.L., CHEUK C., LEE M.K., YEUNG K.C., SIU H.K., SIT W.S., HUI M.T., LEUNG K.W.
11	Accident and Emergency Department (AED) referral review: a reflection of primary care doctors' competency as gatekeepers	Dr. LEUNG Wai Lun
12	A "Fear-Less" Occupational Therapy Programme for patients with White-Coat Hypertension or Hypertension with White-Coat Effect in NTWC Primary Care Setting	Ms. Cindy K.W. PONG, Christopher S.H. LAM, Eric Y.S. FUNG, Joyce T.Y. CHEUNG, CHAN M.L., Edward Y.H. CHAN, Ronald S.Y. CHENG, LIANG J.
13	Virtual cum Real: Innovative Hybrid Occupational Therapy Programme for Risk Assessment and Management Programme (RAMP) in NTWC Primary Care Setting under COVID-19	Ms. Cindy K.W. PONG, Christopher S.H. LAM, Eric Y.S. FUNG, Joyce T.Y. CHEUNG, CHAN M.L., Edward Y.H. CHAN, Ronald S.Y. CHENG, LIANG J.
14	Significant Increase in Myopia and Astigmatism in Hong Kong Children after Study at Home during COVID 19 Lockdown	Dr. LEUNG Tsz Wing, LIANG YY., J.T. LIAN, KEE C.S.
15	Family barriers and facilitators to promote healthy eating among adolescents – A systematic review of qualitative studies	Ms. Kiki S.N. LIU, Julie Y. CHEN, Michelle Y.C. NG, Maegan HY. YEUNG, Laura E. BEDFORD, Cindy L.K. LAM
16	A patient with left 4 <sup>th</sup> cranial nerve palsy	Dr. Emily T.Y. TSE
17	Evaluation of USG-Guided Corticosteroid Injection Outcomes for Trigger Fingers in Family Medicine Musculoskeletal Clinic	Dr. FAN Vei Chen, CHOI Y.K., CHEUK C., LEE M.K., LEUNG K.W.
18	An audit of clinical information in referral letters of patients with low back pain	Dr. Christina CHEUK, CHOI Y.K., LEE M.K., LEUNG K.W.



# Free Paper Competition - Poster Presentation

No.	PRESENTATION TOPIC	AUTHORS (The name of the presenting author is underlined)
19	Analyzing the training needs of primary care doctors – A questionnaire survey in Kowloon Central Cluster	Dr. LEUNG To Fung, HO K.M., TAM W.K., POON T.K., MAN F.Y., HUNG L.L., WONG K.S., LAW T.C., Catherine X.R. CHEN, LI Y.C.
20	Improving DM control in General Out-Patient Clinics of Hong Kong West Cluster	Dr. PONG Pong, Alfred S.K. KWONG, Jenny H.L. WANG, Welchie W.K. KO
21	Use of Innovative Means to Empower Patients in Hypertension and Diabetes Care in General Outpatient Clinics of Hong Kong East Cluster , Hospital Authority	Dr. HUNG Shuk Yee
22	Family Physicians led Triage Clinic – A Successful Gatekeeper to Reduce Orthopaedics Referral for Patients with Trigger Finger	Dr. Matthew M.H. LUK, WONG S.N., CHAN P.F., TOO L.C. KWAN Y., PUN L.Y., FUNG H.T., YEUNG S.W., David V.K. CHAO
23	Promoting insulin therapy with brief motivational interviewing among Type 2 diabetic patients: A quasi-experimental study	Ms. GO Ting Ting, Mandy M. HO, CHAU P.H., Alfred S.K. KWONG, Jenny H.L. WANG, Welchie W.K. KO
24	Smart use of a web-based queuing system to facilitate the workflow of enhanced triage, segregation and consultation arrangement in KEC General Out-patient Clinics (GOPCs) during third wave of COVID-19 outbreak	<b>Dr. Matthew M.H. LUK</b> , FUNG HT., CHAN P.F., David V.K. CHAO
25	Pilot electronic call back registry in KWH GOPD	Ms. TSE Sau Man, LUI L.K., YIP L.M., CHAN S.M.A., WONG L., LEE H., CHAN K.H., HO K.M., NG V. L.
26	Electronic Blood Test Booking Appointment System	Ms. LUI Lai Kwan, TSE S.M., YIP L.M., CHAN K.H.,WONG L., LEE H.
27	Application of Ambulatory Blood Pressure Monitoring (ABPM) in public primary care clinics in Hong Kong: what do primary care doctors need to know?	Dr. WONG Kwai Sheung, HO K.M., LI Y.C., Catherine X.R. CHEN
28	Relationship between perceived stress, health-related quality of life and physiological dysregulations among Hong Kong parents from low-income families	Dr. Esther Y.T. YU, Eric Y.F. WAN, Kiki S.N. LIU, Ivy L. MAK, Caitlin H.N. YEUNG, Rosa S.M. WONG, Emily TY. TSE, Carlos K.H. WONG, Cindy L.K. LAM
29	Psychological wellbeing and stress coping strategies among university students enrolled in healthcare related programs during COVID-19 pandemic	Ms. Phoebe C.F. CHAN, Christopher T.W. TSANG, Atalie CY. TSE, Clement C.H. WONG, TANG H.N., LAW W.Y., LAU C.Y., LIT T.C., NG Y.C., Mandy HO
30	In the fight against COVID-19, "Three-in-One" Prevention and Control Teams are the Secret Weapon of Shenzhen	Dr. ZHANG Yang
31	Navigating the healthcare system for older patients with multimorbidity in Singapore: A qualitative study	Dr. LEE Eng Sing, Evelyn A.L. CHEW, Sabrina P.S. LEE, KOH H.L., DING Y., M. SUBRAMANIAM, J.A. VAINGANKAR
32	Patients' preferred channels for health education in a clinic setting	Dr. LAI Sum Yin
33	Patient Satisfaction Survey of Integrated Mental Health Program (IMHP), at HKWC	Dr. SZE Hon Ho
34	Advanced Practice Nursing Strides Through the Storm of Coronavirus Disease COVID-19: Training Transforms Global Risk in Primary Care Perspective	Ms. Samantha Y.C. CHONG, LUCY S.T. CHUNG, Cinder TY. CHAN
35	Combating severe hypertension in the community: Strategies to enhance clinical safety in a primary care setting	Dr. HUI Lai Chi, Catherine X.R. CHEN, LI Y.C.
36	How can a Family Physician led Orthopaedics Triage Clinic help the secondary care – a review of the outcomes of a Orthopaedics Triage Clinic	Dr. WONG Sze Nga, FUNG H.T., CHAN P.F., David V. K. CHAO

# Free Paper Competition Poster Presentation

### **POSTER 01**

# Interdisciplinary Approach to Enhance Quality of Care for Diabetic Patients on Insulin Therapy in Primary Care

Brendan CY WU<sup>1</sup>, Vivian HM YIP<sup>2</sup>, Inness KY WAN<sup>1</sup>, SH LAU<sup>3</sup>

<sup>1</sup>Associate Consultant, <sup>2</sup> Resident, <sup>3</sup> Advanced Practice Nurse Lady Trench General Outpatient Clinic, Department of Family Medicine and Primary Health Care, Kowloon West Cluster

### Introduction:

In recent years, an increasing demand on basal insulin therapy for patients with Type 2 diabetes (T2DM) has been observed in primary care. Achieving good diabetic control in patients with T2DM on insulin therapy requires interdisciplinary approach and patients' collaboration. A specialized clinic targeting these patients was set up in Lady Trench GOPC.

### **Methods:**

The Insulin Clinic rolled out on 9/10/2019 with "One-stop Interdisciplinary Approach" as the backbone. At insulin clinic, quotas were specifically designed to allow patients to attend physician, nurse, and dietitian consultations on the same day. The arrangement aimed to improve patients' compliance on follow-up including nurse and dietetic sessions, especially for the working class. Clinical issues picked up at consultation could be addressed promptly with instant interdisciplinary communications. More frequent follow-ups were feasible for intensive intervention.

### **Results:**

192 patients were recruited and followed up. Encouraging results were shown 1 year after commencement. For overall diabetic control, 37% of them achieved their latest HbA1c <7.5%, compared with 27% at their first attendance. 59% of them achieved latest HbA1c<8%, compared with 42% at entry. In terms of adjunctive use of sulphonylurea, 53% of patients successfully stopped using sulphonylurea, while another 32% of had down-titration. The "One-stop Interdisciplinary Approach" also enhanced nursing and dietetic care. 573 dedicated nurse sessions and 268 dietitian sessions were arranged to facilitate interdisciplinary collaboration and intervention at patients' attendance for physician's follow-up.

### **Conclusions:**

The "One-stop Interdisciplinary Approach" has proven to enhance the quality of care in patients with T2DM on insulin therapy. Further allied health input from Physiotherapist for weight management is anticipated.

**Keywords:** Diabetes mellitus; Insulin Therapy; Primary care

# Free Paper Competition Poster Presentation

### **POSTER 02**

# Burnout among Family Medicine Doctors during COVID-19 Pandemic: We Care, We Explore and We Support

Joanne Y.W. Ng, Shirley Y.K. Choi, York M.K. Choi, Arthur H.Y. Chung, Maria K.W. Leung

Department of Family Medicine, New Territories East Cluster

### Introduction:

Physician burnout is a public health concern worldwide. Local studies show that prevalence of physician burnout is >60%. Recent studies show higher prevalence of stress and mental health problems among physicians during COVID-19. Our study aimed to explore the stress and burnout condition among family medicine (FM) doctors by assessing change of stress levels, burnout rate and stress coping strategies during COVID-19. We hope to understand doctors' source of stress so that we could proactively prevent physicians' burnout by providing timely support to physicians in need.

### **Methods:**

FM doctors in New Territories East Cluster were invited to participate in an online survey in December 2020. Data collection included basic demographics, change of stress levels of 5 common sources of burnout (job duties, personal life events, social support, work autonomy, work value and reward) during COVID-19 and stress-coping strategies adopted by participants. Burnout rate was assessed by the single-item measure of burnout. It rates respondent's severity of stress by scoring from 1 to 5 with burnout defined as score ≥3.

### **Results:**

Response rate was 70% (N=70). 57.1% were male, mean age 40.6 ± 6.2. 61.4% reported increased stress in personal life event, 44.3% had increased stress from job duties during COVID-19. Burnout rate was 27.1%. Major causes of burnout were job duties (37.1%) and personal life event (32.9%). Age, sex, job position and duration of working in primary care were not associated with burnout. The most common coping strategies were: "spend quality time in things outside of work" (70%), "see things from positive side" (41.4%) and "get comforts from colleagues/seniors/family/friends" (35.7%).

#### Conclusions:

Our burnout rate is relatively low when comparing with other studies. Nevertheless, the data on sources of burnout and coping strategies would guide us on implementing measures to support our doctors' psychological health during the pandemic.

**Keywords:** Burnout; Family Medicine; COVID-19



# Free Paper Competition Poster Presentation

### **POSTER 03**

# **Exercise Barriers of Knee Osteoarthritis Patients during COVID-19 Pandemic**

Joanne Y.W. Ng<sup>1</sup>, Shirley Y.K. Choi<sup>1</sup>, Christina Cheuk<sup>1</sup>, Lawrence C.M. Lau<sup>2</sup>, M.K. Lee<sup>1</sup>, Ken P.K. Fung<sup>1</sup>, Regina W.S. Sit<sup>3</sup>, Maria K.W. Leung<sup>1</sup>

- <sup>1</sup> Department of Family Medicine, New Territories East Cluster
- <sup>2</sup> Department of Orthopaedics and Traumatology, Prince of Wales Hospital
- <sup>3</sup> The Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong

### Introduction:

Knee osteoarthritis (KOA) is a common and debilitating condition. Though exercise is among first-line evidence-based treatments for KOA, physical inactivity is common among KOA patients. Widespread precautionary measures during COVID-19 pandemic might further hinder KOA patients from participating exercises. Our study aimed to investigate the self-perception of exercise level and exercise barriers of KOA patients during COVID-19, which might shed light on provision of KOA care under the pandemic.

#### Methods:

KOA patients who attended Family Medicine Specialist Clinic of Prince of Wales Hospital were recruited. Baseline characteristics including demographics, Kellgren-Lawrence (KL) grades of knee X-rays and symptom score using the Chinese version of Western Ontario and McMaster Universities Arthritis Index (WOMAC® 3.1) questionnaire were collected. Patients were asked to self-rate whether they had adequate exercise and choose their major barriers to exercise during COVID-19.

### **Results:**

333 patients were recruited. 216 (64.9%) were female with mean age of  $67.36 \pm 8.74$ . The mean BMI was  $26.22 \pm 4.11$  and mean WOMAC score was  $93.3 \pm 50.9$ . 240 (72.1%) patients indicated they lack exercise during COVID-19 pandemic. The major exercise barriers were: lack of motivation (N=61, 25.41%), pain (N=60, 25.1%), lack of time (N=34, 10.2%) and limitation by physical condition (N=17, 7.08%). Only 16 (6.67%) patients stated COVID-19 pandemic as major barrier. Patients who lack exercise were of younger age (p=.018), higher proportion of female (p=0.01), had higher BMI (p=.002) and higher WOMAC scores (p=.01). There was no significant difference in KL grades of knee X-rays between 2 groups.

#### **Conclusions:**

This study showed that most KOA patients thought they lacked exercise during COVID-19 pandemic. The top exercise barriers were lack of motivation and pain. Innovative strategies might be needed to motivate KOA patients to exercise during COVID-19 period.

**Keywords:** Exercise; Knee osteoarthritis; COVID-19



# Free Paper Competition Poster Presentation

# **POSTER 04**

# The Effectiveness of Designated Skin Service in a GOPC Run by Family Physician with Special Interest in Dermatology and Dermoscopy

Luk CW<sup>1,2</sup>, Wu CY<sup>1,2</sup>, Yiu MP<sup>1,2</sup>, Wan KY<sup>1</sup>, Chan CW<sup>1,2</sup>, Yiu YK<sup>1</sup>, Luk W<sup>1</sup>

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### Introduction:

With only 115 registered dermatologists in Hong Kong and an even smaller number of dermatologists serving in the Department of Health (DH), the routine waiting time for DH dermatology clinic in KWC is 2-3 years. Previous study1 revealed that general practitioners with special interest in dermatology can provide skin consultations that are more accessible than dermatologists while achieving similar clinical outcomes. Designated skin service was therefore set up in Lady Trench (LT) GOPC in 7/2020 to meet the dermatology service demand.

#### Methods:

All doctors of LT GOPC could refer patients to the service. Consultations were provided by a Family Medicine Specialist with post-graduate diploma in dermatology. Wood's lamp was incorporated to improve diagnostic accuracy. The application of dermoscopy helped differentiate look-alike skin diseases, e.g. eczema vs psoriasis, rosacea vs acne. Clinical photos were taken for progress comparison with iPad provided by HA. Apart from conventional pharmacological treatment, cryotherapy was provided for suitable patients. Dermatology Life Quality Index (DLQI) was performed on the first visit and the fourth or last visit upon discharge, whichever was earlier.

#### **Results:**

73 patients were seen in 8 months. The longest waiting time was 12 weeks. 34 patients completed the DLQI evaluation. Among these patients (F: 18, M: 16), the mean age was 59.3. The discharged cases included eczema (26.5%), recalcitrant tinea infection (26.5%), psoriasis (8%), chronic urticaria (8%), contact dermatitis (8%), wart (8%), seborrhoeic keratosis (5%), cutaneous amyloidosis, seborrhoeic dermatitis, scalp folliculitis, lichen simplex chronicus, prurigo nodularis, acne, vitiligo, alopecia areata, nail dystrophy, benign naevi, dermatofibroma, and skin tag. The mean DLQI dropped from 5.85 to 2.65 (p = 0.004), indicating that the effect of skin disease on patient's life improved from moderate to small. Patients also reported improvement in the degree of itchy, sore, painful and stinging sensation from 1.35 to 0.65 (p = 0.001). Patients were less embarrassed, improving from 1.06 to 0.38 (p = 0.005). Only 5 patients were referred from the service to DH Dermatology Clinic eventually, resulting in an 85% reduction of referral to secondary care.

### **Conclusions:**

Designated skin service in GOPC can improve patients' skin condition, reduce waiting time and referral to DH Dermatology Clinic.

Keywords: Dermatology; Dermoscopy; GOPC

<sup>&</sup>lt;sup>2</sup>Dermatology Interest Group, FM&PHC, KWC



# Free Paper Competition Poster Presentation

# **POSTER 05**

# The Application of Dermoscopy in General Outpatient Clinic (GOPC) – From paper to practice

### **Luk CW**

Department of Family Medicine and Primary Health Care (FM&PHC), Kowloon West Cluster (KWC)

#### Introduction:

Dermoscopy is the examination of skin lesions with the use of a dermoscope. First being utilised by dermatologists, the application of dermoscopy in the primary care settings, especially in Australia, has gained increasing popularity in the past years. The utilisation rate of dermoscopy in Hong Kong is unknown, but it is expected to be low as only 2 dermoscopy-related research have been published in Hong Kong journals. The author would like to demonstrate the application of dermoscopy in primary care in Hong Kong, particularly in the GOPC setting.

### **Methods:**

As a specialist in Family Medicine, the author provides consultations in a GOPC. With formal training from HealthCert of Australia, the author applied dermoscopy in nearly all dermatology cases in daily practice to aid diagnosis and management since 10/2020. DermLite DL4 is used, and clinical photos are taken for documentation.

#### Results:

The use of dermoscopy enhanced the author's ability to make an accurate diagnosis, both for pigmented lesions and general dermatology skin diseases, such as differentiating between eczema and psoriasis. Triage of pigmented lesions was performed with more confidence as dermoscopy provided guidance to the author for the most appropriate action, including expectant management, skin biopsy, and excision. Dermoscopy also acted as an important tool to communicate with and reassure patients.

#### **Conclusions:**

The application of dermoscopy in the GOPC setting in Hong Kong can help doctors to improve diagnosis and subsequent management of skin diseases.

**Keywords:** Dermoscopy; GOPC; Hong Kong



# Free Paper Competition Poster Presentation

### **POSTER 06**

# Skin scraping for scabies mite in KWC GOPC: efficacy in our practice and the improvement strategies

M.P. Yiu, C.Y. Wu, C.W. Luk

### Introduction:

Scabies is a skin infestation by mite Sarcoptes scabiei hominis and it is not uncommonly seen in the elderly and OAH patients in our community. Typical features include burrows over fingers and limbs. Face is spared except in young children. For doubtful cases, colleagues will order skin scraping for scabies mite for a definitive diagnosis.

However, the test has low sensitivity (46%) and low negative predictive value (77%).

A review was therefore conducted in KWC GOPC to assess the efficacy of this tedious investigation and future improvement strategies were suggested.

### **Methods:**

All skin scrapings for Scabies performed from Jan to Aug 2018 were retrieved. The results were shared in the doctors' meeting and improvement strategies suggested. A second review for the same period was conducted in 2019 to see any improvement.

#### Results:

From Jan- Aug 2018, 26 skin scrapings for scabies were performed in KWC GOPC. None of them yielded positive result. The investigations were ordered by 7 different doctors, the ordering frequencies were-1, 2, 4 and 7 times. The findings were shared in doctors' meeting. Doctors were suggested to prescribe the scabies treatment if scabies infestation was suspected rather than order a skin scraping and wait for the result due to low sensitivity.

The second review in the same period in 2019 was conducted. There was a drop to 15 tests ordered and all the results were negative. The investigation was ordered by 9 different doctors with frequencies ranged from 1 to 4 times.

It is interesting to note that during these 2 review periods, there were 123 tests ordered in Kowloon West Cluster and there were 7 positive results noted in other departments.

### **Conclusions:**

Skin scraping for Scabies is a tedious but low yield procedure in GOPC setting

Several strategies are suggested:

Doctor: Treat patient directly for suspected cases. Improve communication with nurses the site to do scraping

Nurses: Review the procedure process and the infection control issue

Dermatoscopy is an alternative simpler yet sensitive (0.83) option for trained family physician. It is also less time consuming and cost effective when compared with skin scraping

Keywords: Scabies; Diagnosis; Dermatoscope



# Free Paper Competition Poster Presentation

### **POSTER 07**

# The effectiveness of nurse counseling session before doctor consultation for insulin initiation

S.Y. Leung, W.H. Lau, Ingrid K.Y. Tsang, W.H. Chung, M.L. Lai, Caroline W.H. Chiu, Maria K.W. Leung

### Introduction:

In the general outpatient clinics (GOPCs) of NTEC, Diabetic (DM) patients with suboptimal HbA1c control despite taking maximum doses of oral hypoglycemic agents (OHA) will be referred to the specialist clinic (RDAC) for insulin initiation. However, most of the patients were reluctant to start insulin therapy and other modifiable factors such as lifestyle and drug compliance may also contribute to the poor control. Therefore, we would like to explore if a routine nurse counseling sessions focusing on insulin preparedness, lifestyle modification and drug compliance can help to improve insulin acceptance and disease control of these patients.

### **Methods:**

Nurse counseling sessions (pre-RDAC) were designed to deliver education on insulin, lifestyle modification and drug compliance. All patients referred to the RDAC for insulin initiation will be seen at the pre-RDAC 2-4 weeks before the doctor consultations. The number of patients successfully started insulin at the first RDAC visits and the Hba1c change between first and second RDAC visits (4-month interval) were recorded and compared between two 6-month period before and after the pre-RDAC implementation (1/9/2019-28/2/2020 vs 1/9/2020-28/2/2021).

### **Results:**

Total 92 DM patients with average Hba1c 9.0 had attended the pre-RDAC clinic between 1/9/2020-28/2/2021. 28 (30.4%) of them had started insulin at the first RDAC visit. The rate was similar to the control period 1/9/2019-28/2/2020 (28/88, 31.8%). The average HbA1c change was -1.17 (-13.00%) for intervention group compared to -0.9 (-9.89%) for control group.

### **Conclusions:**

Although the success rate for insulin initiation at first RDAC visit showed no improvement with the pre-RDAC intervention, it had helped to improve the HbA1c control which may related to the lifestyle modification and drug compliance reinforcement at the nurse session.

**Keywords:** Insulin; nurse counselling; Diabeties

# Free Paper Competition Poster Presentation

#### **POSTER 08**

# Impact of COVID-19 Pandemic on healthcare seeking behaviour in Public Primary Care: a Retrospective Study in New Territories East Cluster (NTEC)

Jinghao Han, Regina W.S. Sit, Shirley Y.K. Choi, Bo Wang, Maria K.W. Leung

#### Introduction:

Studies have revealed the pattern of healthcare seeking behaviour changed during the COVID-19 pandemic, with a reluctance to visit health care facility. This leads to concerns about the care of non-COVID patients, especially those with long term health conditions. There has been less understanding about its impact on primary care service. We aim to evaluate the change in presenting problems in public primary care sector during first and second waves of COVID-19 surge.

#### **Methods:**

We performed a retrospective analysis on routinely collected data from all New Territories East Cluster (NTEC) primary care clinics from clinical data analysis reporting system in a period from 1/2/2020-30/6/2020, and compared it to the same period in 2019. Total number of attendances, sex, age and International Classification of Primary Care (ICPC) codes were retrieved.

#### Results:

Comparing with the data in 2019, the total number of general out-patient clinics (GOPCs) attendances decreased in 2020, with an overall reduction by 10.3% (347,007 vs 386,759). A significant reduction in the number of ICPC R (respiratory) coding was recorded (-58.9%, P< 0.001), with a 70.6% drop of the number of cases diagnosed as upper respiratory tract infection (R74). A remarkable increase of P (psychological) coding was observed (17.4%, P<0.001), with the largest increase occurred in May 2020. Although we observed an overall reduction in numbers of consultations, the number of chronic disease coding, such as K86/87 (uncomplicated and complicated HT) and T90 (non-insulin dependent DM) increased by 0.8% and 2.4%, respectively.

#### Conclusions:

An uptake of P coding suggests there is an increasing service demand, implying that clinical service with focus on dealing with COVID-19 related mental health issues should be implemented. Even though there was an overall modest drop of attendance, the drug refill systems at GOPCs has largely maintained the clinical service of patients with chronic diseases.

**Keywords:** COVID-19; Pandemic; Primary care



# Free Paper Competition Poster Presentation

#### **POSTER 09**

#### "New Normal" in Primary Health Care under COVID-19 Pandemic

M.L. Lai, Caroline W.H. Chiu, S.Y Leung, Maria K.W. Leung, Elsie Hui

#### Introduction:

The COVID-19 pandemic has called off or interrupted many routine health care services. In response to the infection control requirements and the policies of gathering restriction, many services in primary health care that involve face-to-face interaction such as health education, smoking cessation, group interaction and counselling has been suspended or halted. Digital tools and strategies are recognized to be effective in helping health care workers to deliver health care services to our patients. The application of telecare such as phone consultation, Zoom education, video conferencing has become the "New Normal" in the delivery of education, smoking cessation counselling (SCC), and also fever triage and training in Department of Family Medicine in NTEC.

#### **Methods:**

The use of the telecare is applied in four areas: triage assessment; SCC, patient education and training.

- 1) Triage assessment: In usual practice, staff gowned up and performed the triage assessment. In the new arrangement, patients wait in the cohort area and staff complete the triage assessment by phone.
- 2) SCC in-patients' recruitment: In peace time, smoking cessation counsellors recruit in-patient smokers in wards and deliver counselling at bedside. At COVID-19, counsellors received referrals from wards and deliver counselling via phone.
- 3) Health education including Risk Assessment and Management Class, the big class of 20 persons or above is broken down to small groups of three to four. Health education is delivered via Zoom and face-to face interaction with sufficient social distance is allowed.
- 4) Most of the training are delivered via Zoom in the presence of COVID-19. Cardiopulmonary resuscitation drill is carried out with designated number of staff and observers can participate the drill real time through Zoom in another rooms.

#### Results:

- (1) The use of telecare provides a mean to continue the delivery of health education, smoking cessation counselling, triage assessment and training in a safe distance.
- (2) In triage assessment, staff can perform triage assessment in a safe zone and minimize direct contact of suspected infectious patients. In addition, personal protective equipment is saved for other high risk areas.

#### **Conclusions:**

With the application of digital tools and strategies, primary health care service could be more resilient against adverse circumstances. The application of telecare, zoom become the "New Normal" in the delivery of some of the primary health care service.

**Keywords:** New Normal; Primary Health Care; COVID-19 Pandemic



# Free Paper Competition Poster Presentation

#### **POSTER 10**

Evaluation of a Family Medicine Orthopaedics (FM-ORT) Multidisciplinary Low Back Pain Care Delivery Model: Allocating Appropriate Patient to Appropriate Level of Care at Appropriate Time

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#### Introduction:

Low back pain (LBP) is a common and disabling condition with significant socioeconomic burden. Inappropriate or overuse of orthopaedic referrals have led to the long waiting time and delayed the timely care of those who may need early surgical interventions. A LBP care delivery model with collaborative input from family physicians, orthopaedic surgeons and allied health professionals has been implemented in the Prince of Wales hospital since September 2017. The healthcare model aims to provide risk-matched treatments by triaging low-risk LBP cases to primary care in order to reduce the burden of orthopaedic specialist outpatient clinic (SOPC). This study would like to evaluate the initial clinical effectiveness of the healthcare model.

#### **Methods:**

LBP cases referred to orthopaedics department had initial assessment by physiotherapists and low-risk cases were triaged to family medicine musculoskeletal (MSK) clinic. All new LBP cases seen by family physicians in 2018 were retrospectively reviewed from 1st Jan 2018 to 31st Dec 2020. Health service outcomes such as waiting time, mean number of visits, discharge rate and healthcare resources utilization will be evaluated.

#### Results:

Since commencement of the model till December 2020, the overall orthopaedic SOPC waiting time reduced from 182 to 121 weeks. 344 LBP cases were seen at the MSK clinic in 2018. The mean waiting time of MSK clinic was  $10.8 \pm 3.4$  weeks and the mean number of visits were  $2.3 \pm 1.2$ . Twenty-three percent of the LBP cases could be discharged at the first visit. At 1 year, the discharge rate and default rate were 80.2% and 13.7%, respectively. Five cases (1.5%) were referred back to orthopaedics SOPC, 46.2% received physiotherapy, 21.2% received occupational therapy and 1.5% had MRI ordered. No adverse event was reported.

#### **Conclusions:**

The FM-ORT model provided effective healthcare and enhanced the overall LBP care service delivery.

**Keywords:** low back pain; healthcare model; primary care

# Free Paper Competition Poster Presentation

#### **POSTER 11**

### Accident and Emergency Department (AED) referral review: a reflection of primary care doctors' competency as gatekeepers

#### W.L. Leung

Resident Trainee, Department of Family Medicine and Primary Health Care, Kowloon West Cluster

#### Introduction:

It is the role of primary care doctors in the public sector to act as gatekeepers in health care system for effective patient management and better allocation of secondary healthcare resources. A review on AED referrals by primary care doctors reveals the pattern of emergency conditions and complexities of cases in our General Practice Clinic (GPC). There was similar review conducted by our clinic in 2007 showing the top referring diagnoses are poor BP control and poor DM control.

#### **Methods:**

Patients referred to the AED from Yan Chai Hospital GPC during the period from 2nd to 26th Jan 2021 were analyzed to find out: (1) patient demographics, (2) the spectrum of referring diagnoses, (3) patient outcome, and (4) the appropriateness of referrals. In this audit, a referral is deemed appropriate if: (1) hospital admission was required (including specialty ward and emergency medical ward), (2) observation and reassessment in an observation ward were required, or (3) patient was provided urgent investigation or treatment which was not readily available within GPC setting.

#### **Results:**

Among the 30 AED referrals reviewed, the age of patients ranged from 25 to 106 years old. Male-to-female ratio is 13:17. The top four types of referring diagnoses were congestive heart failure (13%), trauma (10%), chest pain (10%), and soft tissue infections (10%). 93% of the referral is deemed appropriate (79% with hospital admissions or stayed in observation ward). In 83% of the referrals, our referring diagnosis matched with the final diagnosis.

#### **Conclusions:**

This review showed the wide spectra of emergency conditions and disease complexity encountered in GPC. The top referring diagnoses are more complex cases compared to poor HT or DM as in the previous audit. This reflects our better competency in handling emergency conditions and making appropriate referral of selected cases to AED. This review can be a pilot in the future audits to further enhance the appropriateness of AED referral of our colleagues.

**Keywords:** AED Referral; Review; gatekeepers

# Free Paper Competition Poster Presentation

#### **POSTER 12**

# A "Fear-Less" Occupational Therapy Programme for patients with White-Coat Hypertension or Hypertension with White-Coat Effect in NTWC Primary Care Setting

Cindy K.W. Pong<sup>1</sup>, Christopher S.H. Lam<sup>1</sup>, Eric Y.S. Fung<sup>1</sup>, Joyce T.Y. Cheung<sup>1</sup>, M.L. Chan<sup>2</sup>, Edward Y.H. Chan<sup>2</sup>, Ronald S.Y. Cheng<sup>2</sup>, J. Liang<sup>2</sup>

#### Introduction:

White-coat hypertension (WCHT) or hypertension (HT) with white-coat effect (WCE) is commonly encountered in primary care setting. Occupational Therapist with expertise in individual or group based lifestyle redesign intervention pioneered the "Fear-Less" Programme, aiming to empower the patients with WCHT or WCE to handle their anxiety in clinic, reduce the risks of HT and promote better self-management for chronic disease.

#### **Methods:**

352 patients with confirmed or suspected WCHT or WCE were recruited from GOPCs in NTWC. The "Fear-Less" programme included two therapeutic group sessions on understanding WCHT or WCE, stress management in clinic, mind-body relaxation practice and lifestyle modification, supplemented with home programme, individual consultation at two-month and follow up session at six-month.

#### **Results:**

288 cases completed two group sessions. The mean clinic systolic blood pressure (SBP) and diastolic blood pressure (DBP) was significantly lowered by 5.4%\*\*\* respectively while clinic heart rate (HR) decreased 6.3%\*\*.

196 cases attended the two-month individual follow up. Comparing with intake, the mean clinic SBP and DBP significantly decreased 6.4%\*\*\* and 3.9%\*\*\*. Generalized Anxiety Disorder (GAD)-7 Scale total score decreased from 5.1 to 3.9\*\*\* (cut off at 5 for mild anxiety symptom). In self-rated 10-point scales, subjective anxiety level in clinic decreased 18.6%\*\*\*, both self-efficacy to HT self-management and sleep quality improved 11.7%\*\*\* and 8.8%\*\*\*.

105 cases completed the programme and showed sustained effect at six-month review. While clinic SBP and DBP kept significant decrease of 5.7%\*\*\* and 5.3%\*\*, GAD-7 Scale total score was 3.0\*\*\* with subjective anxiety level in clinic dropped 16.7%\*\*\*, self-efficacy to HT and sleep quality kept 11.5%\*\* and 10.3%\* improvement when compared to intake.

#### **Conclusions:**

The results provide evidence for Occupational Therapy interventions to improve the clinic BP, subjective anxiety level in clinic and HT self-management among patients with WCHT or WCE, making them "Fear-Less".

**Keywords:** White-coat Hypertension; White-coat Effect; Occupational Therapy

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<sup>\*\*\*</sup>p<0.001, \*\*p<0.01, \*p<0.05



# Free Paper Competition Poster Presentation

#### **POSTER 13**

# Virtual cum Real: Innovative Hybrid Occupational Therapy Programme for Risk Assessment and Management Programme (RAMP) in NTWC Primary Care Setting under COVID-19

Cindy K.W. Pong<sup>1</sup>, Christopher S.H. Lam<sup>1</sup>, Eric Y.S. Fung<sup>1</sup>, Joyce T.Y. Cheung<sup>1</sup>, M.L. Chan<sup>2</sup>, Edward Y.H. Chan<sup>2</sup>, Ronald S.Y. Cheng<sup>2</sup>, J. Liang<sup>2</sup>

#### Introduction:

New Territories West Cluster pioneered to involve Occupational Therapy in RAMP – Hypertension (HT) / Diabetes Mellitus (DM). Patients with imbalanced lifestyle, stress or negative emotion affecting HT or DM control, are commonly referred to Occupational Therapist for individual or group based lifestyle redesign intervention.

At the beginning of COVID-19 pandemic with service suspension, alternative service mode through telephone consultation was adopted. The intensity and quality was much reduced. On the other hand, demand from patients coping with various life stress as well as living with the pandemic soared.

An innovative hybrid service mode with face-to-face and zoom classroom for stress management and mind-body relaxation therapeutic group was developed to address both patient needs and infection control.

#### **Methods:**

In phase I, group therapy sessions were delivered to participants in zoom. In phase II, as the pandemic evolved with resumption of small group intervention, hybrid classroom was adopted. Patients could opt for clinic or zoom based learning. Patients' feedback on group content, perceived benefit and technical support were collected.

#### **Results:**

37 patients successfully completed the zoom group in five batches in phase I. Five hybrid classrooms were conducted for 38 patients in phase II, with real time interaction among patients. Preliminary analysis showed overall satisfaction of 8.9 for group content, 8.6 for perceived benefit, 8.8 for technical support out of a 10-point-scale.

Qualitative feedback was positive as the hybrid mode accommodated different patients' needs, including flexibility for those working or reluctant to attend clinic during pandemic. Patients who preferred traditional learning or with lower technology literacy could be benefited from group therapy with enhanced infection control.

#### **Conclusions:**

This innovative hybrid service mode enabled Occupational Therapists to maintain or expand service capacity despite strict social distancing and space limitation in clinic, serving as a new normal model on group therapy in future.

Keywords: Telecare; Chronic disease; Empowerment

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# Free Paper Competition Poster Presentation

#### **POSTER 15**

### Family barriers and facilitators to promote healthy eating among adolescents – A systematic review of qualitative studies

Kiki S.N. Liu, Julie Y. Chen, Michelle Y.C. Ng, Maegan H.Y. Yeung, Laura E. Bedford, Cindy L.K. Lam

#### Introduction:

Promoting eating habits is an important strategy to tackle adolescent obesity. Existing systematic reviews have confirmed family impacts on adolescent eating habits, but it is not entirely clear "how" and why" families are or are not able to support adolescents in adopting healthy eating. This review aimed to consolidate the findings from qualitative studies, and identify the family barriers and facilitators of knowledge, attitudes and practices (KAP) of healthy eating in adolescents.

#### **Methods:**

A literature search of PubMed, Web of Science, PsycINFO and Embase using search terms for adolescents/family, knowledge/attitudes/practices, eating habits and qualitative methods was completed on 31 July 2020. Qualitative studies were included if they explored the family factors influencing the eating habits of adolescents (aged 10 to 19 years); and excluded if they were not reported in English, not original studies, or targeted adolescents with specific health problems. The selected studies were reviewed through data extraction, quality assessment and synthesis of findings following the KAP framework.

#### **Results:**

48 studies were included with a majority from the Western countries and sampling from single source. Ten themes were synthesized under adolescent dietary KAP: Knowledge – 1) Parental education, 2) Parenting style, and 3) Family illness experience; Attitudes – 4) Family health, 5) Cultivation of preference, and 6) Family motivation; and Practices– 7) Home meals and food availability, 8) Time and cost, 9) Parenting style, and 10) Parental practical knowledge and attitudes.

#### **Conclusions:**

This review highlights authoritative parenting styles, parental dietary knowledge and attitudes as facilitators of adolescent KAP of healthy eating, while time and cost concerns are major barriers. Families of adolescents with working parents and low SES are more vulnerable to unhealthy eating. Cultural differences in family influences on adolescent KAP, especially in the aspects of attitudes and food choices, call for more studies on Asian families.

**Keywords:** healthy eating; adolescents; family



# Free Paper Competition Poster Presentation

#### **POSTER 16**

#### A patient with left 4th cranial nerve palsy

**Emily T.Y. Tse** 

Clinical Assistant Professor

#### Introduction:

Isolated 4<sup>th</sup> cranial nerve palsy is uncommon. A patient presented with diplopia when looking downward is presented here.

#### Methods:

An 85-year old woman with hypertension, hyperlipidaemia attended a GOPC in April 2021 complained of a 1-week history of diplopia worsened when looking in the right downward direction. There had been no head nor eyes injury. Physical exam showed diplopia maximal when looking in the right downward direction and relieved when tilting the head towards the right. There was no other focal neurological sign. The patient was suspected to have left 4th cranial nerve palsy and was referred to the hospital for workup.

#### Results:

She was admitted through the emergency department. CT brain showed no intracranial lesion nor signs of stroke. MRI brain plus autoimmune workup were suggested. Shall follow up on the outcome.

#### Conclusions:

The trochlear (IV) nerve arises from a nucleus in the caudal midbrain. It has the longest intracranial course amongst all the cranial nerves. It is the only cranial nerve that has a dorsal exit from the brainstem. In the orbit it innervates the superior oblique muscle, contraction of which causes downward movement of the globe when the eye is adducted. The most common causes of fourth nerve palsies are congenital, traumatic and microvascular (e.g. ischaemic mononeuropathy due to diabetes or hypertension.) The symptom is usually diplopia, particularly when looking down and reading. The patient will often adopt a compensatory head tilt. Treatment depends on the underlying etiology and aims at maximizing the visual function.

Family physicians should be alerted to the possibility of 4th cranial nerve palsy when patients complain of diplopia, particularly when looking downwards.

**Keywords:** diplopia; cranial nerve palsy; case report



# Free Paper Competition Poster Presentation

#### **POSTER 17**

### **Evaluation of USG-Guided Corticosteroid Injection Outcomes for Trigger Fingers in Family Medicine Musculoskeletal Clinic**

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#### Introduction:

Trigger finger is a common musculoskeletal problem in primary care. Corticosteroid injection has been the first-line treatment of trigger fingers, with success rates of 67-90% after the first injection. Ultrasound (USG) guidance can ensure safer and more accurate injection procedures. The Prince of Wales hospital Family Medicine (FM) musculoskeletal clinic has been providing USG-guided soft tissue injections since late 2019. We aim to review USG-guided trigger finger injection outcomes by comparing finger grading and symptom scores before and after injection.

#### **Methods:**

All trigger finger cases with USG-guided corticosteroid injection performed in the period of January to September 2020 were recruited retrospectively and their case notes were reviewed until 31st March, 2021. Data such as Quinnell grading, Numerical Pain Rating Score (NPRS), and Quick Disabilities of Arms, Shoulder & Hands (Quickdash) score on the day of injection and at subsequent follow-up visits was collected for analysis.

#### **Results:**

A total of 235 fingers among 176 patients received USG-guided injection. The majority of trigger fingers were grade II (N=165, 70.2%) and grade III (N=68, 28.9%). The mean follow-up interval after injection was  $42.2\pm30.0$  days. After injection, 151 (64.2%) of the fingers became grade I and below. The improvement of grading was significant (P<.001). There were significant improvements in both the NPRS (pre-injection mean  $6.48\pm2.29$ , post-injection mean  $2.47\pm2.51$ , P<.001) and Quickdash scores (pre-injection mean  $38.38\pm22.11$ , post-injection mean  $24.61\pm18.96$ , P<.001). There were 13 (7.4%) cases with repeated injection of the same finger, with a mean interval of  $136.73\pm51.50$  days. There were 22 (12.5%) cases referred to physiotherapy, and 3 (1.7%) cases referred to orthopaedics. No adverse effects from injections were reported.

#### **Conclusions:**

USG-guided trigger finger corticosteroid injections resulted in good clinical and functional outcomes.

**Keywords:** Trigger finger; Ultrasound; Corticosteroid injection

# Free Paper Competition Poster Presentation

#### **POSTER 18**

### An audit of clinical information in referral letters of patients with low back pain

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#### Introduction:

Low back pain (LBP) is a common condition and a large burden to the healthcare system. The causes of LBP can vary from specific spinal pathology to radicular syndromes and nonspecific LBP...etc. While most LBP cases can be treated conservatively, some need specialist interventions. Comprehensive clinical information in referral letters can facilitate efficient patient triage to timely specialist review. We aim to have an audit of the clinical information of the LBP referral letters received by our family medicine musculoskeletal (FM-MSK) clinic.

#### Methods:

Referral letters of LBP patients seen in the FM-MSK clinic were collected. Clinical information that was regarded as essential in referral letters for LBP was identified and set as audit criteria. A total of 14 criteria were identified, which included documentation of clinical history, physical examinations and imaging findings. A criterion was regarded as fulfilled if the referral letter mentioned about the clinical information specified in the criterion.

#### **Results:**

A total of 150 referral letters were reviewed from  $22^{nd}$  March to  $30^{th}$  April, 2021. The mean numbers of criteria met by each referral letter were  $4.74 \pm 2.9$ . For pain symptoms, 88% of the referral letters included pain location, 51.3% included pain duration and 54% mentioned pain radiation. For neurological symptoms, 38.6% mentioned sensation symptom, 35.3% mentioned leg weakness and 32% mentioned bladder function. For physical examination, 37.3% mentioned musculoskeletal findings and 24.6% mentioned neurological findings. Imaging findings was mentioned in 60%.

#### Conclusions:

This audit showed that majority of the LBP referral letters failed to provide adequate clinical information that was essential for patient triage. This implies that referral letters alone might not be a very reliable tool for triage of patients with LBP. Besides exploring measures to improve the details of referral information, we should also study ways to effectively triage patients with LBP.

**Keywords:** audit; referral letters; low back pain



# Free Paper Competition Poster Presentation

#### **POSTER 19**

### Analyzing the training needs of primary care doctors - A questionnaire survey in Kowloon Central Cluster

Dr. Leung TF, Dr Ho KM, Dr. Tam WK, Dr. Poon TK, Dr. Man FY, Dr. Hung LL, Dr. Wong KS, Dr. Law TC, Dr. Chen XRC, Dr. YC Li

#### Introduction:

To provide comprehensive and yet competent primary care is one of the greatest challenges to HA. Primary care doctors working at GOPCs are handling patients from cradle to grave, from head to toes, with multiple complaints ranging widely from different specialties1. Therefore, it is imminent to design a tailor-made training program for primary care doctors to meet the increasing service needs, especially for a department with more than 100 doctors working at different clinics. This study tried to identify the training needs of KCC FM&GOPC doctors and to identify gaps in our current program so as to improve.

#### **Methods:**

An on-line questionnaire created by the training subcommittee was sent to all full-time doctors of KCC FM&GOPC from 16/11/2019 to 15/12/2019. Traditional written form was also available upon request. The questionnaire consisted of 2 parts, i.e. clinical competency and feedback on training activities. For clinical competency, colleagues were asked to rate their perceived competency over 24 clinical problems on the Likert scale (1-10). In the feedback section, doctors with different training status (basic trainee, higher trainee, service doctor and FM specialist) were asked to give a rating of their satisfactions on the training activities on the Likert scale (1-10).

#### Results:

A total of 106 doctors were invited to join the analysis, among which 58 (54.7%) doctors completed the survey. Among the 24 items in clinical competency, 'Hypertension Management' scored an average of 7.93 and was perceived as the most competent areas to our doctors, followed by 'Thyroid disorder' (7.69) and 'Change in bowel habit' (7.66). Regarding the least competent areas, 'Contraception' only scored an average of 6.05 and was the least competent area to respondents. The other less competent areas included 'Handling difficult patient' (6.21) and 'Anxiety disorder' (6.28). At the feedback section, doctors with different training status were satisfied with our existing training programs in general with an average score of 7.32. Among them, basic trainees scored the highest satisfaction score of 8.67, followed by 8.32 from higher trainees. FM specialists rated an average score of 7.5 while the service doctors rated 6.70.

#### **Conclusions:**

This survey successfully identified areas perceived as the most competent to doctors in KCC FM&GOPC and revealed their least confident areas. Doctors with different training status were satisfied with our existing training programs in general. Further enhancement, particularly focusing on the training activities of least competence, would be introduced accordingly to address the identified training needs.

**Keywords:** training; survey; primary



# Free Paper Competition Poster Presentation

#### **POSTER 20**

### Improving DM control in General Out-Patient Clinics of Hong Kong West Cluster

P. Pong, Alfred S.K. Kwong, Jenny H.L. Wang, Welchie W.K. Ko

#### Introduction:

DM is common in chronic disease management in General Out-patient Clinics (GOPCs). Improved control could significantly reduce long term mortality, morbidity, and burden to the health care system.

#### **Methods:**

Data of DM patients from CDARS within the period 1/1/2019 to 31/3/2020, in all 6 GOPCs of Hong Kong West Cluster were extracted and analyzed, it was observed that majority of cases were seen in Sai Ying Pun GOPC (35%), and majority of cases with unsatisfactory HbA1c (>7%) were ranged between 7-8.5% (24.6%). Cases seen within the Period A 1-31/3/2019 and Period B 1-31/3/2020 with HbA1c tested within 180 days were further analyzed. To produce 90% confidence level, 59 cases in Period A and 58 cases in Period B were randomly selected from 415 and 400 cases within the 2 periods respectively, and their medical records in CMS were analyzed.

#### **Results:**

There was no significant difference in age and sex distribution of the patients. The HbA1c was a bell-shaped distribution peaked at 6-6.5% (24.3% of total cases) and 6.5-7% (27.4% of total cases). The HbA1c control rate ( $\leq$ 7%), was not significantly difference within Q1-Q4 of 2019, but significantly improved from 70.4% to 76.8% in Q1 of 2020, (p value <0.0001). Most of the cases were on oral medications. The numbers of patients on maximum doses of metformin and gliclazide, or on insulin, were not significantly different. It was observed with increased alternative oral agent usage. i.e., DPP4, SGLT2, Actos, with the average number of oral agent usage increased from 2.03 (Period A) to 2.3 (Period B). Multiple risk factors of poor HbA1c control were identified. The major causes included suboptimal dose, poor diet control, and patient refused for treatment. It was observed better drug compliance in period B, and patient intolerance rate remained low in both periods.

Documented doctor's action against raised HbA1c in the records, included giving advice on diet and exercise, stepping up medicine, or referral to dietitian were increased from Period A 50.8% to Period B 60.3%. There were significantly reduced cases with suboptimal dosage without action from 56.6 % in Period A to 35.8% in Period B (p value <0.05). There was also improved blood pressure control rate to the target 130/80 mmHg, from 49.2% in Period A to 58.6% in Period B. (Reference range from HAHO 18Q2-19Q1 46.4%). There was also improved LDL cholesterol control rate to 2.6 mmol/L with DM, and 1.8 mmol/L with history of cardiovascular problems or stroke, with 75.9% in Period A to 81% in Period B. (Reference range from HAHO 18Q2-19Q1 74.8%).

#### Conclusions:

Suboptimal dosage was a major cause of unsatisfactory DM control. The drug dosage could be further optimized due to low patient intolerance rate. Another major cause was poor diet compliance. Dietitian service and education materials could assist to improve diet control. Patient refusal to treatment could be improved with better rapport to patient and better understanding of patient's expectations. Drug compliance was improving. There was still room for BP control improvement.

Keywords: DM; HbA1c; GOPC

# Free Paper Competition Poster Presentation

#### **POSTER 22**

### Family Physicians led Triage Clinic – A Successful Gatekeeper to Reduce Orthopaedics Referral for Patients with Trigger Finger

Matthew M.H. Luk<sup>1</sup>, Sze Nga Wong<sup>2</sup>, Pang Fai Chan<sup>2</sup>, Lai Chong To<sup>2</sup>, Yu Kwan<sup>2</sup>, Lai Yin Pun<sup>2</sup>, Hoi Tik Fung<sup>2</sup>, Sze Wai Yeung<sup>2</sup>, David V. K. Chao<sup>2</sup>

#### Introduction:

With an aim to enhance the gatekeeping role of Family Physicians, a pilot Family Medicine Triage Clinic (FMTC) was established in KEC in August 2017 to manage stable patients with predefined orthopaedics conditions which would otherwise require referral to Orthopaedics Specialist Outpatient Clinic (SOPC). Comprehensive assessment and pharmacological treatment by FM specialists according to evidence-based clinical guidelines, early non-pharmacological interventions by physiotherapists and occupational therapists are provided.

#### **Methods:**

Relevant clinical information of all patients with trigger fingers referred to FMTC from 1 August 2018 to 28 February 2019 were reviewed in Clinical Management System.

#### **Results:**

179 patients were referred to FMTC for trigger fingers. Mean age was 62.2 years old. 67.6% were female. Mean waiting time was 72 days.

174 patients were diagnosed of trigger fingers (97.2%). Other diagnoses included hand osteoarthritis (1.7%), suspected chronic osteomyelitis (0.6%) and non-specific hand pain (0.6%). 110 patients (61.5%) received local steroid injection. One of them was complicated with infection which was subsided with antibiotics. No patients had other serious complications. 86 patients (48.0%) received splint from occupational therapist. 85.5% patients had symptoms improvement. 48.0% patients had already been discharged. The median consultation attendances and follow-up duration before discharge were 3 visits and 113 days respectively.

Only 10 patients (5.5%) required referrals to the Orthopaedics SOPC as 8 of them needed surgery for trigger fingers. One patient was referred as a finger lump was noted after local steroid injection, which was later subsided on subsequent SOPC visits. Another patient was referred due to suspected chronic osteomyelitis. Computer tomography was done by SOPC and suggested of osteoid osteoma.

#### **Conclusions:**

Family physicians led Triage Clinic can provide appropriate and effective management to patients with trigger fingers. Patients with severe conditions and unusual clinical features can also be detected and referred timely to SOPC. The clinic helped reduce the workload in secondary care by performing a gatekeeper role successfully.

**Keywords:** Trigger finger; Orthopaedics problem; Gatekeeper

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# Free Paper Competition Poster Presentation

#### **POSTER 23**

### Promoting insulin therapy with brief motivational interviewing among Type 2 diabetic patients: A quasi-experimental study

Ting Ting Go<sup>1,2</sup>, Mandy Man Ho<sup>2</sup>, Pui Hing Chau<sup>2</sup>, Alfred Siu Kei Kwong<sup>1</sup>, Jenny Hua Li Wang<sup>1</sup>, Welchie Wai Kit Ko<sup>1</sup>

#### Introduction:

Type 2 diabetic (T2DM) patients with suboptimal glycemic control commonly delay insulin initiation. This study examined brief motivational interviewing (MI) in improving insulin acceptance and initiation among them.

#### **Methods:**

A quasi-experimental study was conducted in an outpatient clinic. Chinese T2DM patients, who never used or be prescribed to start insulin therapy, with HbA1c≥7.5% and maximum dosage of oral anti-diabetic agents were recruited. All participants were interviewed with a validated short screening psychological insulin resistance questionnaire to understand their psychosocial and behavioral barriers towards insulin initiation. Participants recruited during 1/10/2019-23/12/2019 were treated with usual care (control group). Those recruited during 24/12/2019-30/4/2020 were treated additionally with a 15-min individualized Brief MI guided by the screening findings to explore and resolve their ambivalence and enhance patient's intrinsic motivation of insulin acceptance (intervention group). Outcomes were (1)"insulin acceptance" (i.e. patients' agreement to be referred to the insulin clinic at the end of the session) and (2)"insulin initiation" (i.e. patients' attendance at the insulin clinic for actual insulin initiation within 6 months).

#### **Results:**

Among 143 patients (control: 64; intervention: 79), 52.4% of them were female, with mean age of 64.5(SD=8.7) and mean HbA1c of 8.3 %(SD=1.0). No significant between-group difference in patient characteristics were shown. More than half of participants thought that injecting insulin was painful (58%) and they were lack of social support (50.3%). Both insulin acceptance and initiation rates were higher in patients of the intervention group than those in control group (acceptance: 31.6% vs 4.7 %, p<0.001; initiation: 10.1% vs 1.6%, p=0.042).

#### **Conclusions:**

Brief MI with screening questionnaire and structured communication protocol was effective to promote insulin therapy amongst T2DM patients in a time-constraint clinical care environment.

Keywords: Insulin initiation; Brief motivational interviewing; Psychological insulin resistance

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# Free Paper Competition Poster Presentation

#### **POSTER 24**

Smart use of a web-based queuing system to facilitate the workflow of enhanced triage, segregation and consultation arrangement in KEC General Out-patient Clinics (GOPCs) during third wave of COVID-19 outbreak

Matthew M.H. Luk<sup>1</sup>, Hoi Tik Fung<sup>2</sup>, Pang Fai Chan<sup>2</sup>, David V. K. Chao<sup>2</sup>

#### Introduction:

To screen out potential COVID-19 patients, KEC GOPCs had adopted an enhanced triage, segregation and consultation arrangement as an enhanced infection control measure under Emergency Response Level since 25/2/2020. Patients with fever or acute respiratory symptoms as screened by our triage stations or doctors of ordinary consultation rooms will be directed to special segregation waiting areas, and they will then be seen by our assigned doctors in fever consultation rooms. Communications between consultation rooms, treatment rooms and registration counters were relied on phone calls. This communication method was overwhelmed in some clinics by the sudden surge of patients with fever or acute respiratory symptoms during the third wave of COVID-19 outbreak in Hong Kong in July 2020. Frontline doctors expressed their consultations were heavily disturbed by excessive number of phone calls. Frequent phone calling also caused additional workload to nursing and clerical staff.

#### Methods:

A web-based queuing system was set up since 20/7/2020. The queuing system could be accessed using Internet Explorer at all intranet workstations in the clinics. Frontline doctors, nurses and clerical staff could communicate on which patients were triaged to fever consultation room by inputting text to the queuing system. The queuing system was coded in HTML, JavaScript and ASP.NET.

#### **Results:**

The queuing system was rolled out at Mona Fong GOPC on 21/7/2020 and Lam Tin Polyclinic GOPC on 23/7/2020. The need of using phone calls for communication was drastically decreased.

Online survey was distributed to frontline doctors, nurses and clerical staff from 26/11/2020 to 6/12/2020 for evaluation. The response rate was 80.6% (25/31). The queuing system was positively rated by our frontline users. 96.0% users strongly agreed or agreed the system helped the clinics to implement triaging patients with fever and acute respiratory tract symptoms more effectively.

#### **Conclusions:**

The web-based queueing system was a useful tool to facilitate workflow for triaging patients with fever or acute respiratory symptoms in our GOPCs.

Keywords: web-based queuing system; COVID-19; GOPC

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# Free Paper Competition Poster Presentation

#### **POSTER 25**

#### Pilot electronic call back registry in KWH GOPD

TSE SM , LUI LK, YIP LM, CHAN SMA, WONG L, LEE H, CHAN KH, HO KM, NG LV  $_{APN}$ 

#### Introduction:

In the KWH GOPD, there are over 4500 cases per year with abnormal investigation results indicative of early intervention by calling back involved patients. Our current practice relies solely on written documentation in paper registry to record down all relevant information for those cases. GOPD nurses need to manually trace through the registry to identify individual case.

#### **Methods:**

The project started to have preparatory meeting since 3Q 2018. The proposed electronic platform had been designed 4Q 2018. The trial run of the electronic platform had been implementation on April 2019. To evaluate the outcome of program, there were 50 cases had been studied during 11-16 February 2019 by manual record. Another 50 cases had been studied during 6-10 May 2019 by electronic call back registry.

#### **Results:**

During 11-16 February 2019, total time was 621 minutes, average 11.3 minutes per case. Compared with the period in May 2019, handled by the electronic registry, the total time was 376 minutes, average 7.5 minutes per cases. There was significantly reduced 39% the total time for documentation. Using the electronic platform would minimize the time spent in documenting patient's information.

#### Conclusions:

There was a significant reduction in nursing man-hour for handling the call back registry. All patients with abnormal investigation results indicative of early intervention would be well registered in a secure and easily accessible electronic registry. Staff was positive and supportive to the improvement project. We planned to extend to SOPD in our next phase.

Keywords: electronic; call back registry; KWH

# Free Paper Competition Poster Presentation

#### **POSTER 26**

#### **Electronic Blood Test Booking Appointment System**

LUI LK, TSE SM, YIP LM, CHAN KH, WONG L, LEE H

APN

#### Introduction:

In the KWH Out Patient Department (OPD), we have served over 500 patients every day for blood taking. As patients are advised to have their blood test two weeks before the next medical consultation without scheduling, it would be hard for OPD to plan for the work-load and crowd control. Therefore, OPD started blood test appointment booking since June 2014. We retrieved the date from the Manual booking record, staff marked the appointment date and time on the GCRS reminder form as an appointment slip. However, this method is not user friendly to patient and staff. This is because the blood test appointment only shows on the reminder form. There is no record keep in OPD. If patient wants to change the appointment, the patient need to come back to OPD with the reminder form.

#### **Methods:**

We had meeting with I.T department in Aug 2018. Drafted the booking system template in Oct 2018. After modified the template and quota setting, final version was established in May 2019. Staff training provided during June to July 2019. The system will be implemented in 3Q 2019.

#### **Results:**

The electronic template had been drafted. Staff had tried to use the electronic platform for booking the appointment for blood test. It would save our time for searching the quota in paper record. Staff with positive feedback of the new enhancement.

#### **Conclusions:**

The pilot project had been implemented in GOPC from Aug 2019. Staff will use the system to book all blood taking appointment for all GOPC cases, total around 13,000 GOPC cases per year. If the system is stable and mature, we will implement to serve SOPD cases as our next phase.

**Keywords:** Electronic Blood Test; Booking Appointment; KWH

# Free Paper Competition Poster Presentation

#### **POSTER 27**

# Application of Ambulatory Blood Pressure Monitoring (ABPM) in public primary care clinics in Hong Kong: what do primary care doctors need to know?

#### K.S. Wong, K.M. Ho, Y.C. Li, Catherine X.R. Chen

Department of Family Medicine and General Outpatient Clinics, Kowloon Central Cluster, Hospital Authority Hong Kong

#### Introduction:

To delineate the indications for ordering ABPM in public primary care setting and to explore the patient characteristics and the results of the ABPM.

#### **Methods:**

Design: Cross-sectional descriptive study.

Subjects: All patients who had performed ABPM from 1/12/2016 to 30/11/2017 in five General Out-patient Clinics were included.

Main Outcome Measures: The indications for doing the ABPM, demographics of patients undergoing ABPM and the results of ABPM were studied.

#### Results:

There were 323 patients with ABPM done within the study period with valid results. 64% were female and 36% were male, and the average age was  $64 \pm 12$  (19 to 94 years old). 67 (21%) with diabetes mellitus and 53 (16%) with impaired glucose tolerance or impaired fasting glucose. For the indications for ABPM, 150 (46%) were for establishing diagnosis of HT and 173 (54%) were for monitoring of blood pressure (BP) control among hypertensive patients. Among the diagnosis of HT group, 96 (64%) were confirmed with diagnosis of HT, 42 (28%) were found to have white-coat HT only. For the monitoring of BP control group among HT patients, 98 (57%) were noted to have suboptimal BP control and 67 (39%) were found to have white-coat effect. Among the 65 patients whose ABPM had been ordered despite their clinic BPs were normal, 18 (28%) were diagnosed to have masked HT and 19 (29%) were diagnosed to have masked uncontrolled HT.

#### **Conclusions:**

ABPM greatly helped the diagnosis and management of different types of HT in primary care.

Keywords: Ambulatory blood pressure monitoring; hypertension; primary health care



# Free Paper Competition Poster Presentation

#### **POSTER 28**

Relationship between perceived stress, health-related quality of life and physiological dysregulations among Hong Kong parents from lowincome families

Esther Y.T. Yu, Eric Y.F. Wan, Kiki S.N. Liu, Ivy L. Mak, Caitlin H.N. Yeung, Rosa S.M. Wong, Emily T.Y. Tse, Carlos K.H. Wong, Cindy L.K. Lam

#### Introduction:

Low-income families face increased exposure to stressors including material hardships, poorer social support and violence, potentially impacting on physical and mental health of both parents and their children. Long-term activation of the stress-response system can lead to cumulative physiological dysregulations, predisposing an individual to cardiovascular diseases, depression and death. This study aims to explore how perceived stress correlates with health-related-quality-of-life (HRQOL) and physiological dysregulations.

#### **Methods:**

A prospective study was conducted on primary parent from two less affluent communities between 2016 and 2019. Each parent was assessed at baseline, 12- and 24-months for perceived stress level using the Depression-Anxiety-Stress Scale (DASS), HRQOL using the Short-Form-12-item (version 2) Health Survey, and physiological dysregulations using Cardio-Metabolic-Dysregulation-Index (CMDI). A linear mixed effect model adjusted for parent's characteristics and time was used to determine the associations between perceived stress, HRQOL and CMDI.

#### Results:

A total of 217 parents (mean age (SD): 42.4(6.2); 91.7% female) were recruited. 38 parents (17.5%) perceived significant level of stress (DASS-stress score≥15), who scored 13.4% lower in their physical HRQOL (mean PCS(SD) = 42.5(9.9) vs. 49.1(8.2), p<0.001), 31.4% lower in their mental HRQOL (mean MCS(SD) = 38.1(10.0) vs. 55.5(8.7), p<0.001), but had similar CMDI (mean(SD): 1.1(1.2) vs 1.3(1.2)), compared to parents who did not experience stress. After adjustment for confounders, significant negative associations were found between perceived stress level and both physical (-0.30, p<0.01) and mental HRQOL (-0.64, p<0.01), as well as between physical HRQOL and CMDI (-0.15, p<0.01). Conversely, stress was not associated with CMDI, and time factor was not associated with any outcomes.

#### Conclusions:

Our study demonstrated that perceived stress was significantly associated with worse physical and mental HRQOL, but not physiological dysregulations. Nevertheless, physical HRQOL was inversely associated with CMDI. Hence, our results suggested a possible pathway of how stress could adversely affect physical health of an individual.

**Keywords:** stress; health-related quality of life; physiological dysregulation



# Free Paper Competition Poster Presentation

#### **POSTER 29**

Psychological wellbeing and stress coping strategies among university students enrolled in healthcare related programs during COVID-19 pandemic

Phoebe C.F. Chan, Christopher T.W. Tsang, Atalie C.Y. Tse, Clement C.H. Wong, H.N. Tang, W.Y. Law, C.Y. Lau, TC Lit, YC Ng, Mandy Ho

Li Ka Shing Faculty of Medicine, The University of Hong Kong

#### Introduction:

During the COVID-19 pandemic, healthcare students are greatly affected due to a prolonged period of school and clinical teaching suspension. This study aims to assess the psychological wellbeing and stress coping strategies adopted by healthcare students in Hong Kong during the COVID-19 pandemic, and to explore the relationship between healthcare students' stress coping strategies and psychological wellbeing during the COVID-19 pandemic.

#### **Methods:**

A cross-sectional online survey was conducted from January to March 2021. All years of full-time undergraduate students, who are enrolled in healthcare related programmes at the University of Hong Kong were invited to participate. Convenience sampling was adopted. The psychological well-being and coping strategies were assessed by using the Ryff Scale and the brief Coping Orientation to Problems Experienced inventory (COPE), respectively.

#### **Results:**

202 responses (71.3% female, 35.6% nursing students, 35.2% medical students) were collected. Nursing students (P=0.003), respondents with lower academic confidence (P<0.001), with a history of chronic diseases and/or psychological disorders (P=0.007), lower self-ratings on peer (P<0.001) and family relationship (P=0.012) during COVID-19 pandemic had a lower Ryff score, indicating a poorer psychological well-being. Conversely, respondents who adopted a more active coping strategy ('approach') showed a higher Ryff score than those who used a dysfunctional ('avoidant') (mean 65.9 vs 53.6, P<0.001). Medical students (P<0.001) and academically confident students (P<0.001) were more likely to adopt an 'approach' strategy. Also, it was found that Ryff score positively correlated with the COPE problem-focused score (r=0.269, P<0.001) and negatively correlated with the COPE dysfunctional score (r=-0.532, P<0.001).

#### Conclusions:

The findings of this study provide insight for educators to identify vulnerable groups among healthcare students. Adopting 'approach' as the primary coping mechanism appears to be associated with a better psychological wellbeing and further studies should explore strategies to empower students to adopt problem-focused stress coping strategies.

**Keywords:** COVID-19; Psychological wellbeing; Stress coping strategies

# Free Paper Competition Poster Presentation

#### **POSTER 30**

### In the fight against COVID-19, "Three-in-One" Prevention and Control Teams are the Secret Weapon of Shenzhen

#### **Zhang Yang**

General practitioner

#### Introduction:

The number of domestic tourists during the 2021 May Day holiday is 230 million, which has entered the stage of regular prevention and control of the epidemic. At the same time India has over 300,000 new confirmed cases of COVID-19 in a single day. Such a contrast makes people wonder how China has quickly controlled the epidemic.

#### Methods:

Through a report on the community management of a close contact of COVID-19, this oral speech introduces the domestic "grass-roots gridding" epidemic prevention methods.

#### **Results:**

So as to discuss the possible factors of victory in the fight against the epidemic and provide epidemic prevention experience for other epidemic areas.

#### **Conclusions:**

Community Management is a key factor in China's victory over COVID-19.

**Keywords:** COVID-19; Community Management; grass-roots gridding



# Free Paper Competition Poster Presentation

#### **POSTER 32**

#### Patients' preferred channels for health education in a clinic setting

#### S.Y. Lai

Associate Consultant

#### Introduction:

In recent era, electronic and online resources become more popular. (1) It is easy for patients to obtain health information by different channels. It is important to understand patients' preferences for health information and access points. Effective channels to promote health information can enhance patients' knowledge to their own health, improve lifestyle modification, and patients' satisfaction to consultation due to limited consultation time in clinic setting in Hong Kong.

#### Objectives:

- (1) to explore patients' perceived need when attending a clinic setting in terms of health education
- (2) to determine the most preferred way to receive health information.

#### **Methods:**

This study was a cross-sectional survey in a public general out-patient clinic in Hong Kong. Patients attending our clinic were randomly approached for recruitment. Participants were asked to fill in basic demographic information and a questionnaire. Since this was a pilot study, we did not have a preset sample size. We have collected 100 questionnaires. Analysis of the data was done using Excel and/or IPSS.

#### Results:

Online resources and individual face to face counseling with other health care professionals are patients' most preferred channels for receiving health education besides doctor consultation in a clinic setting.

More than half of elderly patients would use online resources for health information in clinic setting.

For the most preferred channel for receiving health education in elderly group with age 60 or above, online resources was the second preferred channel to receive health information. This reflects online resources not only welcomed by younger patients and relatives as we expected, but also elderly would like to assess the online resources.

#### **Conclusions:**

There is lack of local data about patients preferred channels to receive health information in clinic setting. This research fills this gap and provides more data for clinics in our local population to choose effective channels for patient education.

**Keywords:** health education; primary care; preferred channel



# Free Paper Competition Poster Presentation

#### **POSTER 33**

### Patient Satisfaction Survey of Integrated Mental Health Program (IMHP), at HKWC

H.H. SZE

Associate Consultant

#### Introduction:

In primary care setting, depression and anxiety are the two most common mental disorders (CMDs), The establishment of IMHP in October 2010 has greatly enhanced the care of patients with CMDs in GOPC setting. This programme involves close collaboration among key workers, family medicine specialists and liaison psychiatrists.

#### Methods:

The authors used a questionnaire to perform the service satisfaction survey to the IMHP patients. The questionnaire contained 11 declarative statements by using 3 different modalities: Likert Scale Questions, Rating Scales Questions, and Open-ended Questions.

#### Results:

In August of 2019, 153 completed questionnaires were received. Over 80% of patients expressed that the IMHP program helped them in: -having better self-awareness of their mental condition, -learning ways to manage their emotion, -releasing stress and reduce their emotional distress. 79% of patients reported that the program could help them adjusting their negative thoughts. 70% patients expressed that the most appreciated part of the program is the skill and attitude of therapist, who was able to help them solve their problems and improve their mood. Recommendations were received to improve the IMHP service, -Increasing frequency of sessions (2 patients); -Shortening of waiting time (1 patient); -Increasing contact time in each session and (2 patients); -Increasing the variety of group activities and psychoeducation classes. (2 patients) In general, 91% of patients were satisfied with IMHP service. 81% of patients felt their overall mental condition improved after joining the IMHP service.

#### **Conclusions:**

We would continue to provide this service, and seek ways for further improvement.

Keywords: Patient Satisfaction Survey; Integrated Mental Health Program; Primary Healthcare



#### Free Paper Competition -**Poster Presentation**

#### **POSTER 34**

#### Advanced Practice Nursing Strides Through the Storm of Coronavirus Disease **COVID-19: Training Transforms Global Risk in Primary Care Perspective**

#### CHONG Yuen Chun Samantha<sup>1</sup>, CHUNG Shuk Tze Lucy<sup>2</sup>, CHAN Tsz Yan Cinder<sup>3</sup>

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- <sup>2</sup> Honorary Fellow, Hong Kong Academy of Nursing
- 3. Fellow of Hong Kong College of Health Service Executives

#### Introduction:

Fear of death is a common human experience which is expressed as a tremendous pain and resistance especially for patients with Coronavirus Disease COVID-19 and their family members. On 13 May 2021, the cumulative deaths due to COVID-19 in Hong Kong and Mainland China are 210 and 4636. Whereas the cumulative deaths in UK, US and whole world are 576,149, 1,038,226 and 3.320.099 respectively.

Numerous research studies have been done in past few decades on people who were clinically dead but returned to life. They described experiences of a transcendent state of conscious existence beyond the physical world, meeting their deceased relatives and come back with a conviction that life exist after physical death. Many of them have been studied through the scientific method and are evidential. 1,2,3 The knowledge of these research findings has helped to alleviate the anxiety and pain related to death and loss.

#### **Methods:**

#### Aim

Train up nurses to care for family members of those who die of COVID-19 and to alleviate their fear of death and pain of grief.

#### Objective

To enhance participants' acceptance of death through disseminating knowledge of evidenced based information on Near-Death Experience NDE research findings so that they can be more effective in supporting the dying and the bereaved.

Educational Training programs on NDE were conducted to help nurses to develop evidence-based knowledge and skills.

#### **Program Objectives**

- 1. To develop knowledge on research findings of NDE experience in the last few decades
- 2. To help participants transcend fear of death and pain of grief
- 3. To develop a positive death view with evidence-based information on NDE
- 4. To facilitate sharing of NDE with patients and bereaved relatives as evidence-based information to alleviate the fear of death and the pain of grief

#### **Results:**

Positive feedback from participants of a NDE Training Program in 2020 was shown in Figure 1.

Selected feedbacks from participants of NDE Training Program

- "Sharing of near-death experience relieves my fear of death. Death is not so terrible. I can accept that it can come anytime."
- "Information about near death experience affirms that life goes on after death no matter what religion you believe."
- "Cases on near death experience are fascinating. They help me form new perspectives about life and death."

#### Conclusions:

The impact of the advanced practice nursing with knowledge of near-death experience in primary care is that nurses can help dying patients who suffered from various illnesses including COVID-19 and their family members effectively and transforms the global risk of tremendous fear of death and inconsolable pain of grief.

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Keywords: Advanced Practice Nursing on Primary Care; Training on Near Death Experience to transcend fear of death; COVID-19 Global risk of patients & family of bereaved



# Free Paper Competition Poster Presentation

#### **POSTER 35**

### Combating severe hypertension in the community: Strategies to enhance clinical safety in a primary care setting

L.C. Hui, Catherine X.R. Chen, Y.C. Li

KCC Asso. CON(FM & GOPC), KCC CON(FM & GOPC), KCC COS(FM & PHC)

#### Introduction:

Hypertension (HT) is the most common chronic disease managed in the primary care. Severe hypertension (SHT) is defined as severely elevated blood pressure (BP) of 180 mm Hg or more systolic, or 110 mm Hg or more diastolic. Acute SHT accompanied by acute target-organ injury (hypertensive emergency) requires immediate treatment, whereas asymptomatic SHT patients often have preexisting poorly controlled HT and usually can be managed in the outpatient setting. Inappropriate referral of patients with asymptomatic SHT to emergency hospital may impose unnecessary burdens on the health care system.

#### Objectives:

- 1) To implement community interventions in management of patient with severe SHT
- 2) To evaluate the clinical outcomes of patients with SHT after implementation of interventions

#### Methods:

From year 2017, different interventions were implemented to enhance clinical safety among patients with SHT managed in GOPCs in KCC, they are:

- 1) Departmental wide promulgations with series of educational meetings on hypertensive management to all front-line doctors
- 2) Clinical guideline update: Guideline for managing patients with hypertension was updated. Doctors should attend patient who have SHT with symptoms of central nervous system with priority. Patient who were suspected to have hypertensive emergency should be referred to emergency department. Asymptomatic SHT patient should be managed according to clinical guideline and follow-up should be provided within two weeks.
- 3) Data-driven approach in hypertensive risk monitoring: list of SHT patients were sent to clinic in charge of individual clinics regularly for review of patients' clinical conditions.

SHT patients who had been regularly followed up in 6 GOPCs of KCC from 1st Apr 2018 to 31st Mar 2019 were retrieved from the CDARS. Electronic medical records of patients in CMS were reviewed. Outcome measures included referral rate to emergency department, time interval of follow-up, changes to antihypertensive drug treatment, BP control and cardiovascular events including stroke, myocardial infarction and cardiovascular death.

#### **Results:**

Totally 182 patients with SHT were managed in 6 GOPCs of KCC during the study period. Their average age was 61.8 (±14.1) years old and the proportion of male (51.1%) and female patients (48.9%) were similar. Among them, only 13 patients (7.1%) were referred to emergency department in hospitals and most of them (144 patients, 79.1%) had a follow-up visit at GOPC within 2 weeks.108 patients (59.3%) had medication augmentation by either increasing the dose of antihypertensive or addition of new antihypertensive drugs. Among the 74 patients (40.7%) with no medication changes, 55 patients (75.6%) were diagnosed with white-coat hypertension (WCH) by 24-hour ambulatory BP monitoring (ABPM). Overall, 84 patients (45.9%) achieved a normotensive BP (<140/90 mm Hg) within 6 months follow-up. For SHT patients who were followed up in GOPCs, none of them had documented cardiovascular events within a 6 months follow-up.

#### Conclusions:

In conclusion, with the implementation of comprehensive strategies via a team-based approach, SHT patients could be managed safely in the primary care setting and hence reduce the burden to the hospital.

**Keywords:** Severe hypertension; Hypertensive emergencies; Chronic disease management



# Free Paper Competition Poster Presentation

#### **POSTER 36**

### How can a Family Physician led Orthopaedics Triage Clinic help the secondary care – a review of the outcomes of a Orthopaedics Triage Clinic

S.N. Wong, H.T. Fung, P.F. Chan, David V. K. Chao

S.N. Wong (Associate consultant), H.T. Fung (consultant), P.F. Chan (consultant), David V. K. Chao (COS)

#### Introduction:

In order to enhance the gatekeeping role of Family Physicians, a pilot Family Medicine Triage Clinic (FMTC) was set up in Hospital Authority Kowloon East Cluster in August 2017 to manage stable patients with predefined orthopaedics conditions. Comprehensive assessment and pharmacological treatment by FM specialists according to evidence-based clinical guidelines, and early therapy by physiotherapists and occupational therapists are provided.

#### **Methods:**

The first 300 new cases attended FMTC from 1st October 2018 were included and the consultation notes from 1st October 2018 to 30st September 2019 were reviewed.

#### **Results:**

The mean age of the patients was 62.0 years old and 66.0% were female. The mean waiting time of the clinic was 10 weeks compared with the median waiting time of 118 weeks of Orthopaedics Specialist Out-patient Clinic (SOPC). 100 patients (33.3%), 129 patients (43.0%) and 53 patients (17.7%) were referred for chronic low back pain, chronic knee pain and trigger finger respectively. 18 patients (6.0%) were referred for more than one of the pre-defined conditions.

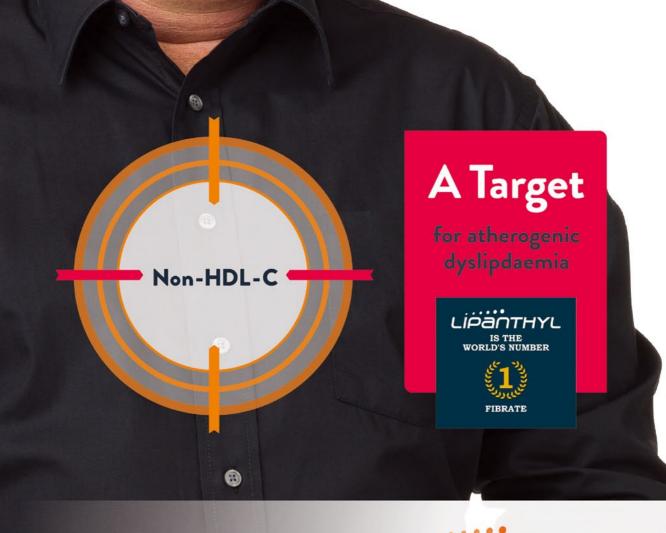
For those 116 patients referred for chronic low back pain, the most prevalent diagnosis was lumbar spondylosis (36.2%), followed by lumbar disc disorder (23.3), non-specific back pain (15.5%) and spondylolisthesis (8.6%). For those 146 patients referred for knee pain, the most prevalent diagnosis was osteoarthritis of the knee (87.0%), followed by patellofemoral pain syndrome (3.4%) and tendinopathy (2.1%). For those 56 patients referred for trigger finger, steroid injections were performed in 28 patients.

For all the patients who had attended the clinic for more than once, 65.6% patients reported symptoms improvement. 75.7% patients were discharged from the clinic within the review period; only 58 (19.3%) patients required referrals to the Orthopaedics SOPC. The indications for referrals were mainly advanced knee osteoarthritis (32.8%) and prolapsed intervertebral disc with significant neurology (17.2%). Red flags were tagged in 9 patients (3.0%) with the diagnosis of serious conditions including cauda equina syndrome, bone tumour, avascular necrosis of the hip, etc., which warrant urgent assessment by secondary care.

#### Conclusions:

Family physician led Triage Clinic could manage patients with high prevalent orthopaedics conditions successfully, make accurate diagnosis and timely referrals for those with serious diseases and reduce the workload in secondary care.

**Keywords:** Orthopaedics; Family Physician; Triage clinic





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Reference

1. IMS data from IQVIA; IMS Analytics Link MAT06 2017.

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1. Scicchitano R et al. Curr Med Res Opin 2004; 2019): 1403-18. 2. Kuna P et al. Int J Clin Pract 2007 May; (61)5:725-36. 3. Bousquet J et al. Respir Med 2007; 101: 2437-46. 4. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention 2019. https://www.ginaasthma.org. Accessed on 6 Jan 2020.

\*Change in life based on quality of life (QoL) and the reduction of exacerbation risk, hospitalisations, inhaler use and days with asthma medication.

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\* HR was reported as 0.63 vs warfarin (95% CI: 0.53-0.74); 0.77 vs rivaroxaban (95% CI: 0.65-0.90); and 0.79 vs dabigatrain (95% CI: 0.65-0.94).

+ HR was reported as 0.56 vs warfarin (95% Ct: 0.46-0.67), and 0.71 vs rivarousban (95% Ct: 0.59-0.85).

\*2 3 mg Lukarar 's warfarin (95% Ct: 0.66-0.67), and 0.71 vs rivarousban (95% Ct: 0.59-0.85).

\*2 3 mg Lukarar 's warfarin (95% Ct: 0.59-0.81), p-interaction=0.023.

Cl: confidence interval; CV: cardiovascular; HR: hazard ratio; INR: international normalized ratio; NOAC: non-vitamin K antagonist oral anticoagulant; SEE: systemic embolic even

List of explaints. Mainstall [221], Pregolatinised starch, Crospooldone, Hydroxyprosylcollubias, Magnesium stearise (E4700), Hyprometose [E464], Macrogol 8000, Titanium dioxide [221], Trais, Carnauba wax, Iron oxide yellow [E172], Inneapositin midicationers Prevention of stroke and systemic embolism in adult patients with nonavolusia artist in Hibrillation (MVXP) with one or more in vivin one or more invitable to the vivin one of parenteeral annixosoplant for at least 5 days, for VAX and VTI 30 mg LUXAAV once of the vivin one or parenteeral annixosoplant for at least 5 days, for VAX and VTI 30 mg LUXAAV once of the vivin one or parenteeral annixosoplant for at least 5 days, for VAX and VTI 30 mg LUXAAV once of the vivin one of the

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Cl=confidence interval. CV=cardiovascular, h=hour, Ml=myocardial information NNT=number needed to be at

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- Chan KCA, Woo JKS, King A, et al. Analysis of Plasma Epstein-Barr Virus DNA to Screen for Nasopharyngeal Cancer. N Engl J Med. 2017;377(6):513-522. doi:10.1036/NEJMoa170171.
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