DPP 2021

亞洲糖尿病基金會
Asia Diabetes Foundation

Diabetes Preventing the Preventables Forum 2021

2 May 2021 • Hong Kong

Co-organizer:

香港糖尿科護士協會
Association of Hong Kong Diabetes Nurses

Supporting organizations:

香港醫學會
The Hong Kong Medical Association

香港家庭醫學學院
The Hong Kong College of Family Physicians

CONTENTS

Welcome message 2

Organizer, co-organizer, supporting organizations, organizing committee and programme committee 3

Faculty members 4

Scientific programme 11

Academic accreditations 12

Abstracts

Symposium 1 *(supported by Abbott Laboratories Ltd.)*

- Nutritional management of diabetic patients with chronic kidney disease 13
  Katy Wilkens, U.S.A.
- Can good diabetes care prevent osteoporosis and fracture 14
  Elaine Yun-ning Cheung, Hong Kong

Symposium 2 *(supported by Sanofi Hong Kong Ltd.)*

- Celebrating insulin 100: Basal Insulin as cornerstone of diabetes treatment 15
  Alice Y.Y. Cheng, Canada
- Timely simultaneous intensification with fixed ratio combination of basal insulin and GLP-1 RA 16
  Ronald Ching Wan Ma, Hong Kong

Symposium 3 *(supported by Merck Pharmaceuticals (HK) Ltd.)*

- The economic burden of type 2 diabetes in Hong Kong 17
  Rohini Omkar, Singapore
- Trends of diabetes care in Hong Kong – where are the unmet needs 18
  Andrea On Yan Luk, Hong Kong

Symposium 4 *(supported by Novo-Nordisk Hong Kong Ltd.)*

- Role of incretin-based therapy in COVID-19 19
  Soo Lim, Korea
- Co-formulation of insulin analogues – Review of evidence 20
  Kitty Kit Ting Cheung, Hong Kong

Symposium 5

- Use of metformin in patients with advanced chronic kidney disease 21
  Elaine Yee Kwan Chow, Hong Kong
- Vitamins and trace elements in cardiometabolic disease 22
  Kenneth Ka Hei Lo, Hong Kong
- Smart-phone based lifestyle intervention in gestational diabetes 23
  Tong Wei Yew, Singapore

Symposium 6

- Screening for blood glucose and lipids in a Chinese general population 24
  Martin Chi Sang Wong, Hong Kong
- Role of District Health Centre in prevention of NCD 25
  Jimmy Yeung-key Wu, Hong Kong
- Complexity of diabetes – learning from patients during clinical trials 26
  Elaine Yee Kwan Chow & Andrea On Yan Luk, Hong Kong

Acknowledgements 27

WELCOME MESSAGE

Dear faculty and delegates,

Every person with diabetes has a unique set of risk factors which the care team has to systematically measure, manage and monitor in order to prevent premature death and disabilities for preserving the quality of life.

The most challenging aspect in managing diabetes is to help patients manage their disease for the rest of their life and to personalize treatment choices at different stages of the disease.

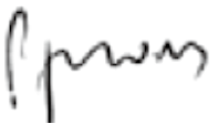
The DPP Forum is an annual meeting which aims to foster collaborations amongst relevant stakeholders to develop care models which can bring out the best of our expertise and technologies in order to make chronic care accessible, sustainable and affordable.

To this end, we have invited a faculty of experts and thought leaders with a diversity of experiences who will share with us their views and insights into this health care challenge.

We hope you will enjoy this meeting and that you will continue to be part of this growing network in pursuit of prevention and control of diabetes and chronic disease.

Best regards,

Professor Juliana Chan
Chairman



Professor Alice Kong
Co-chairman

Professor Andrea Luk
Co-chairman

ORGANIZER

亞洲糖尿病基金會
Asia Diabetes Foundation

CO-ORGANIZER

香港糖尿科護士協會
Association of Hong Kong Diabetes Nurses

SUPPORTING ORGANIZATIONS

香港醫學會
THE HONG KONG MEDICAL ASSOCIATION

香港家庭醫學學院
The Hong Kong College of Family Physicians

ORGANIZING COMMITTEE

Chairman: Professor Juliana Chan
Co-chairmans: Professor Alice Kong
Professor Andrea Luk

Members: Ms. Amy Fu
Mr. Jason Lam
Dr. Eric Lau
Ms. Vanessa Lau
Ms. Renee Tse

PROGRAMME COMMITTEE

Members: Dr. Alvin Chan
Professor Juliana Chan
Ms. Sarita Chan
Dr. Elaine Chow
Dr. Elaine Cheung
Ms. Harriet Chung
Dr. Chung Ping Ho
Professor Alice Kong
Dr. Mary Kwong
Professor Andrea Luk
Dr. Risa Ozaki
Dr. Rose Ting
Dr. Man Wo Tsang
Professor Martin Wong

FACULTY MEMBERS

Alice Y.Y. Cheng

Associate Professor, Department of Medicine, University of Toronto, Canada

Dr. Alice Y.Y. Cheng is an endocrinologist at Trillium Health Partners and Unity Health Toronto and an Associate Professor at the University of Toronto. She has been involved with the development of the Diabetes Canada clinical practice guidelines since 2003 and served as Chair for the 2013 version. Currently, she is the Chair of the Professional Section of Diabetes Canada and an Associate Editor for the Canadian Journal of Diabetes. In recognition of her contribution, she has received the national Charles H. Best Award and the Gerald S. Wong Service Award from Diabetes Canada. She is also the creator of The Med Ed Pledge – an initiative to increase Diversity & Inclusion in continuing medical education (www.theMedEdPledge.com).

Elaine Yun-ning Cheung

Honorary Clinical Associate Professor, Hong Kong Institute of Diabetes and Obesity, The Chinese University of Hong Kong, Hong Kong

Dr. Elaine Yun-ning Cheung is a specialist in endocrinology, diabetes and metabolism. She is currently the Senior Medical Officer of United Christian Hospital. She is also the Honorary Clinical Associate Professor of the Chinese University of Hong Kong and Senior Research Associate of Asia Diabetes Foundation. Dr. Cheung graduated from the University of Hong Kong and obtained her fellowship in Internal Medicine in 1999 and Endocrinology, Diabetes and Metabolism in 2004. She attained her Medical Doctorate degree in 2015 in the field of Osteoporosis under the supervision of Professor Annie Kung. She has published 14 articles in peer reviewed journals in the field of osteoporosis and related topics. Her main research interest is in epidemiology of osteoporosis and bone fragility in diabetes.

FACULTY MEMBERS

Kitty Kit Ting Cheung

Associate Consultant, Division of Endocrinology & Diabetes, Department of Medicine & Therapeutics, Prince of Wales Hospital, Hong Kong

Dr. Kitty Kit Ting Cheung is an endocrinologist specializing in diabesity, endocrine disorders, and health service management. Her prime clinical research interests are in effects of testosterone on cardiovascular risks, effects of body mass index on survival in elderly patients with diabetes, and advance management (cell therapy and technology) of diabetes. In 2015, Dr. Cheung was granted the Hospital Authority Corporate Scholarship when she spent six months at the University of Alberta with the world leading clinical islet transplant team. Dr. Cheung has been awarded with multiple Hospital Authority Outstanding Team Awards (NTEC Diabetes Service Team 2020, NTEC Thyroid Eye Team 2020, and Implementation of Drug Refill Services in Hospital Authority 2021) in recognitions of her significant contributions to team work and service developments.

Elaine Yee Kwan Chow

Assistant Professor, Phase 1 Clinical Trial Centre and Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Dr. Elaine Yee Kwan Chow is an Assistant Professor of the Phase 1 Clinical Trial Centre and Department of Medicine and Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong. Her main research areas include pharmacoepidemiology and evaluation of novel drugs and devices relating to diabetes and cardiometabolic disorders. She has been principal investigator for several studies investigating the effects of different glucose lowering drugs in moderate-to-advanced diabetic kidney disease and has strong interest in continuous glucose monitoring. She has published in leading diabetes journals including *Diabetes Care, Diabetologia* and *Diabetes*.

FACULTY MEMBERS

Soo Lim

Professor, Department of Internal Medicine, Seoul National University College of Medicine, Seoul National University Bundang Hospital, Korea

Dr. Soo Lim is a Professor of Medicine, Division of Endocrinology and Metabolism at Seoul National University Bundang Hospital. He graduated and received a doctorate in Medicine from the Seoul National University College of Medicine, Korea. He worked as a research fellow at Massachusetts General Hospital/Harvard Medical School, U.S.A. in 2011-2012. Dr. Lim's research interests focus on biology and pathophysiology related with diabetes mellitus, dyslipidemia, obesity, fatty liver, and metabolic syndrome. He has published more than 290 scientific journals. He is an expert in managing patients with diabetes mellitus and also a well-known lecturer in many countries. He is the editor-in-chief of Journal of Obesity and Metabolic Syndrome (JOMES), an official journal of the Korean Society for the Study of Obesity and an editorial board member of many international journals.

Kenneth Ka Hei Lo

Research Assistant Professor, Department of Applied Biology & Chemical Technology, The Hong Kong Polytechnic University, Hong Kong

Dr. Kenneth Ka Hei Lo is interested in how sleep pattern and dietary factors may interplay and influence the risk of cardio-metabolic diseases. He is experienced in conducting cross-sectional studies, large-scale cohorts and meta-analyses, and has translated the results into multiple publications in high profile journals, including Diabetes Care and Obesity Reviews. Besides, Dr. Lo serves as the reviewer for American Journal of Clinical Nutrition and has recently received the AJCN 2020 Top Reviewer Award.

FACULTY MEMBERS

Andrea On Yan Luk

Associate Professor, Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Dr. Andrea On Yan Luk is currently the Associate Professor of the Department of Medicine and Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong. She is also the Medical Director (Non-Oncology) of the Phase 1 Clinical Trial Centre and serves as an honorary associate consultant at the Prince of Wales Hospital. Dr. Luk completed her specialist training in endocrinology, reproduction and metabolism in 2007. Her research interests include epidemiology of diabetes and diabetes-related complications, study of the aetiology and mechanisms of young-onset diabetes, as well as translational studies of care models in people with diabetes. She has been an investigator of over 90 clinical trials. She has published more than 100 articles in peer-reviewed journals.

Ronald Ching Wan Ma

Professor and Head (Academic Affairs), Division of Endocrinology & Diabetes, Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Dr. Ronald Ching Wan Ma is a Professor at the Department of Medicine and Therapeutics, The Chinese University of Hong Kong, Hong Kong and Honorary Consultant Physician, Head of Division of Endocrinology and Diabetes (Academic Affairs), Prince of Wales Hospital, Hong Kong. Dr. Ma completed his medical training at the University of Cambridge, UK and trained in Internal Medicine in London. He furthered his research interest in the area of diabetic complications at the Joslin Diabetes Center, Harvard Medical School, Boston, USA, under the mentorship of Professor George King. Dr. Ma's research focuses on the epidemiology and genetics of diabetes and its complications, gestational diabetes, polycystic ovary syndrome, and the developmental origins of diabetes. He has published over 300 research articles in international peer-reviewed journals and authored 13 book chapters.

FACULTY MEMBERS

Rohini Omkar

Senior Manager, Health Policy and Clinical Evidence, The Economist Intelligence Unit, Singapore

Dr. Rohini Omkar is a Senior Manager with the Economist Intelligence Unit Healthcare practice. Rohini manages global engagements with international clients, from the conceptualization to delivery and execution of customized research projects. Rohini worked in the public sector and academic domains where she developed, implemented and managed transformative public health and strategic research programs in Singapore. Rohini holds a degree in medicine from the St. John's Medical College (India) and a Master's degree in Public Health from Harvard University (2010).

Tong Wei Yew

Consultant, Division of Endocrinology, Department of Medicine, National University Hospital, Singapore

Dr. Tong Wei Yew is committed to exploring innovative methods of delivering person-centred diabetes care. He leads programs to transform clinic consultations into meaningful conversations for better patient engagement in specialist and primary care settings. He was lead investigator for the SMART-GDM study, a randomised control trial that showed improved glycaemia and neonatal outcomes among women with gestational diabetes using a smartphone app. He is Consultant at the Division of Endocrinology, National University Hospital, and Assistant Professor in Yong Loo Lin School of Medicine, National University of Singapore.

FACULTY MEMBERS

Katy Wilkens

Nutrition & Fitness Manager, Nutrition & Fitness Services, Northwest Kidney Centers, U.S.A.

For Ms. Katy Wilkens, the primary role of the renal dietitian is to teach, whether it is writing, speaking at events, educating peers, students, TV demonstrations, developing patient education materials or sitting down with one of her dialysis patients. She is the Nutrition Manager of Northwest Kidney Centers, where she oversees the care of over 2,000 dialysis patients. She is the author of the renal chapter in the internationally recognized "Food, Nutrition and Diet Therapy". In 2019, Ms. Wilkens was awarded the Joel Kopple Award by the NKF in appreciation of outstanding service and dedication to renal nutrition. In 2020, she was awarded a Medal of Excellence from the American Association of Kidney Patients (AAKP).

Martin Chi Sang Wong

Professor (Clinical), JC School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Dr. Martin Chi Sang Wong is a specialist in Family Medicine and a researcher in the field of cancer screening and prevention of chronic diseases. He has composed over three hundred publications in international peer-reviewed journals, and received over 15 research awards for studies in his research area, including the prestigious "1st Distinguished Research Making Family Medicine Shine Award" by the World Organization of Family Doctors in 2018. He is a member of steering committees of multinational studies and advisory boards of the Government of the Hong Kong Special Administrative Region. He is also a reviewer for many local and international medical research councils. His enthusiasm to teaching has been well received by students and has been selected for the "Master Teacher" and the "Annual Teacher of the Year Award" for seven years. He was appointed as an Adjunct Professor of the Peking Union Medical College in March 2019; and Adjunct Professor of Global Health by the Peking University.

FACULTY MEMBERS

Jimmy Yeung-key Wu

Director (District Health Centre Team), Primary Healthcare Office, Food and Health Bureau, Health Branch, Hong Kong

Mr. Jimmy Yeung-key Wu is currently the Director (District Health Centre Team) of the Primary Healthcare Office under the Food and Health Bureau overseeing the development and establishment of the District Health Centres in the 18 districts in Hong Kong.

Prior to his present appointment, Mr. Wu was Senior Manager (Allied Health) in Hospital Authority Head Office since 2000 until he retired from Hospital Authority in 2018.

SCIENTIFIC PROGRAMME

2 May 2021 (Sunday)		
08:45 – 09:25	Registration	
09:25 – 09:30	Welcome remarks	Juliana Chung Ngor Chan, Hong Kong
Symposium 1 ***(supported by Abbott Laboratories Ltd.)***		**Co-chairs: Harriet Chung & Alice Kong**
09:30 – 10:00	Nutritional management of diabetic patients with chronic kidney disease	Katy Wilkens, U.S.A.
10:00 – 10:30	Can good diabetes care prevent osteoporosis and fracture	Elaine Yun-ning Cheung, Hong Kong
10:30 – 10:45	Break	
Symposium 2 ***(supported by Sanofi Hong Kong Ltd.)***		**Co-chairs: Juliana Chan & Victor Hung**
10:45 – 11:15	Celebrating insulin 100: Basal Insulin as cornerstone of diabetes treatment	Alice Y.Y. Cheng, Canada
11:15 – 11:45	Timely simultaneous intensification with fixed ratio combination of basal insulin and GLP-1 RA	Ronald Ching Wan Ma, Hong Kong
Symposium 3 ***(supported by Merck Pharmaceutical (HK) Ltd.)***		**Co-chairs: Jenny Leung & Risa Ozaki**
11:45 – 12:15	The economic burden of type 2 diabetes in Hong Kong	Rohini Omkar, Singapore
12:15 – 12:45	Trends of diabetes care in Hong Kong – where are the unmet needs	Andrea On Yan Luk, Hong Kong
12:45 – 13:45	Break	
Symposium 4 ***(supported by Novo-Nordisk Hong Kong Ltd.)***		**Co-chairs: Rose Ting & Man Wo Tsang**
13:45 – 14:25	Role of incretin-based therapy in COVID-19	Soo Lim, Korea
14:25 – 14:45	Co-formulation of insulin analogues – Review of evidence	Kitty Kit Ting Cheung, Hong Kong
Symposium 5		**Co-chairs: Alvin Chan & Wing-yee So**
14:45 – 15:15	Use of metformin in patients with advanced chronic kidney disease	Elaine Yee Kwan Chow, Hong Kong
15:15 – 15:45	Vitamins and trace elements in cardiometabolic disease	Kenneth Ka Hei Lo, Hong Kong
15:45 – 16:00	Break	
16:00 – 16:30	Smart-phone based lifestyle intervention in gestational diabetes	Tong Wei Yew, Singapore
Symposium 6		**Co-chairs: Sarita Chan & Mary Kwong**
16:30 – 16:45	Screening for blood glucose and lipids in a Chinese general population	Martin Chi Sang Wong, Hong Kong
16:45 – 17:00	Role of District Health Centre in prevention of NCD	Jimmy Yeung-key Wu, Hong Kong
17:00 – 17:20	Complexity of diabetes – learning from patients during clinical trials	Elaine Yee Kwan Chow & Andrea On Yan Luk, Hong Kong
17:20 – 17:30	Panel discussion	All
17:30 - 17:35	Closing remarks	Andrea On Yan Luk, Hong Kong

ACADEMIC ACCREDITATIONS

College Name	CDE/CE/CEU/CME/CNE/CPD points
Association of Hong Kong Diabetes Nurses Limited (For ALL NURSES)	6.5
Hong Kong College of Community Medicine	6
Hong Kong College of Emergency Medicine	6
Hong Kong College of Paediatricians	6
Hong Kong College of Physicians	6.5
Hong Kong College of Radiologists	6.5
Hong Kong Dietitians Association	0.5 core & 4.5 non-core
Hong Kong Nutrition Association Limited	4
Hong Kong Physiotherapy Association Limited	5
Hong Kong Podiatrists Association	3
International Podiatrists Association of Hong Kong	10
MCHK CME Programme	5
Medical Laboratory Technologists Board	Pending
Pharmacy Central Continuing Education Committee	6
The College of Ophthalmologists of Hong Kong	6.5
The College of Surgeons of Hong Kong	6
The Hong Kong College of Anaesthesiologists	6.5
The Hong Kong College of Family Physicians	5
The Hong Kong College of Obstetricians and Gynaecologists	6.75
The Hong Kong College of Orthopaedic Surgeons	Pending
The Hong Kong College of Otorhinolaryngologists	3.5
The Hong Kong College of Pathologists	6.5
The Hong Kong College of Psychiatrists	6

SYMPOSIUM 1

(supported by Abbott Laboratories Ltd.)

09:30 – 10:00

Nutritional management of diabetic patients with chronic kidney disease

Katy Wilkens

Nutrition & Fitness Manager, Nutrition & Fitness Services, Northwest Kidney Centers, U.S.A.

New international guidelines for the care of diabetic patients with chronic kidney disease have been released by the KDIGO workgroup. KDIGO is the global nonprofit organization developing and implementing evidence-based clinical practice guidelines in kidney disease. A brief review of the prevalence CKD in diabetic patients and their unique nutrition risks will be presented. Ms. Wilkens will review the guidelines, discuss their applicability and what the general practitioner can do to help facilitate education and adherence to the nutritional and lifestyle recommendations made in the guidelines. The role of Medical Nutrition Therapy, (MNT), will be discussed, with data showing effectiveness of nutrition interventions. Recommendations for the diabetic diet, protein and sodium recommendations will be reviewed, with practical suggestions that you can include in your discussion with patients to help them be successful. Other lifestyle modifications will be discussed, as well as utilization of nutrition professionals to enhance the team approach and help prevent progression of renal disease.

10:00 – 10:30

Can good diabetes care prevent osteoporosis and fracture

Elaine Yun-ning Cheung

Honorary Clinical Associate Professor, Hong Kong Institute of Diabetes and Obesity, The Chinese University of Hong Kong, Hong Kong

Fracture risk is increased in patients with type 1 and type 2 diabetes. These patients also have worse outcome after fracture compared with other patients without diabetes. While type 1 diabetes (T1D) is likely associated with low bone mineral density (BMD), BMD in patients with type 2 diabetes (T2D) is not reduced but bone quality is not good. Bone fragility progressed with longer duration of diabetes and is associated with micro-vascular complications and use of certain drugs especially thiazolidinediones. In this lecture, we will explore whether good glycaemic control can prevent osteoporosis and fracture in our patients with diabetes.

Poor glycaemic control with the associated increase in advanced glycation end-products (AGEs) will affect bone quality. Poor glycaemic control is also associated with low bone turnover. High HbA_{1c} over time is associated with higher chance of development of microvascular complications. In subjects with poor glycaemic control, we may need to start our patients on medications such as insulin with associated risk of hypoglycaemia. Presence of microvascular complications and hypoglycaemia predispose our patients to increase fall risk and fractures.

In patients with T1D, it has been shown that there was a positive correlation between HbA_{1c}, AGEs and degree of mineralization, giving risk to less flexible bone and tendency toward fracture. However, BMD and fracture risk were only found to correlate with glycaemic control in some but not all studies conducted in patients with T1D.

T2D is a state of low bone turnover. Hyperglycaemia with associated increase in sclerostin and inhibition of RANKL, insulin resistance with the associated low grade inflammatory state all contribute to this low bone turnover. Multiple prospective population-based studies as well as large retrospective cohort studies showed that poor glycaemic control was associated with increased risk of clinical fracture and hip fracture. Bone fragility in patients with T2D with poor glycaemic control can result from micro-crack accumulation and cortical porosity, reflecting impaired bone repair.

On the other hand, too tight glycaemic control with $HbA_{1c} < 7\%$ in elderly subjects aged around 77 was associated with increased risk of hip fracture in one case control study. $HbA_{1c} < 6.5\%$ was associated with higher risk of clinical fracture and hip fracture among men with a mean age of 76 especially if they were using insulin. The increase in fracture risk after switching to insulin was especially high within the first 2 months. Along this line, one retrospective study showed that frequent episodes of severe hypoglycaemia were associated with risk of hip fracture among subjects with mean age of 70. Usage of insulin secretagogues was also associated with increased risk of hip fracture.

So not only is HbA_{1c} important, how to arrive at that HbA_{1c} is also important. Recent publications showed that HbA_{1c} variability and fasting glucose variability were predictors for hip fractures in Chinese patients with T2D.

In conclusion, stable glycaemic control is important for prevent of fracture and HbA_{1c} target should be individualized. Poor glycaemic control is associated with increased risk of fracture. However too tight control in elderly subjects with diabetes also increase risk, especially for those on medications which can predispose them to hypoglycaemia and fall.

SYMPOSIUM 2

(supported by Sanofi Hong Kong Ltd.)

10:45 – 11:15

Celebrating insulin 100: Basal Insulin as cornerstone of diabetes treatment

Alice Y.Y. Cheng

Associate Professor, Department of Medicine, University of Toronto, Canada

Since the discovery of insulin 100 years ago at the University of Toronto, its use has evolved tremendously in terms of its time-action profile, safety and delivery. From a basal perspective, they have become flatter and longer with less hypoglycaemia. The next generation of basal insulin analogues have continued that journey. However, despite advances in other aspects of diabetes management, insulin will always remain as a cornerstone of therapy.

11:15 – 11:45

Timely simultaneous intensification with fixed ratio combination of basal insulin and GLP-1 RA

Ronald Ching Wan Ma

Professor and Head (Academic Affairs), Division of Endocrinology & Diabetes, Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

There is an epidemic of diabetes in Asia, with increasing proportion of young-onset diabetes. Recent studies have highlighted the glycaemic burden among individuals with young-onset and long duration of diabetes, as well as the problems with glycaemic progression and oral drug failure. In our recent analysis of the Hong Kong Diabetes Register, among 7,091 insulin-naïve Chinese patients with mean age of T2D onset of 51 years, during a median follow-up period of 8.8 years, around 35% of patients were started on insulin, with incidence of glycaemic progression estimated at 48 per 1,000 person-years. There was also a significant lag in insulin initiation.

Treatment of T2D recommend a stepwise approach to reach glycaemic targets which may result in uncontrolled high HbA_{1c} between steps. In people with T2D inadequately controlled on OADs, treatment intensification should be considered. One retrospective analysis has demonstrated that initiating GLP-1 RA and basal insulin within close proximity three months can provide greater improvement in glycaemic control, compared with sequential initiation 91-360 days apart. Asian T2D patients have unique features such as impaired beta-cell function, high carbohydrate intake and high PPG excursion, so a single injectable that only cover FPG might not be enough. Furthermore, Asians appear to have greater HbA_{1c} lowering compared to Europeans from therapies targeting the incretin pathway.

iGlarLixi, an FRC of the basal insulin glargine 100 U/mL and the GLP-1 RA, lixisenatide, is approved for use in people with T2D, and can simultaneously provide two complementary mechanism of action of GLP-1 RA and basal insulin. Their complementary mechanisms of action are an effective approach to improving glycaemic control, including FPG and PPG. FRC of basal insulin and GLP-1 RA can also mitigate the weight gain associated with basal insulin alone, with no additional risk of hypoglycaemia, and improved gastrointestinal (GI) tolerability compared with GLP-1 RA alone. From Lixilan-O, results showed that iGlarlixi achieved greater HbA_{1c} reduction when compared to insulin glargine or Lixisenatide, with comparable hypoglycaemia risk to basal insulin but lower GI side effect to GLP-1-RA. From Lixilan-L study, iGlarlixi was found to lead to greater reduction in HbA_{1c} compared to insulin glargine, with less weight gain and similar hypoglycaemia risk.

In this lecture, the importance of early treatment intensification and the utility of fixed ratio combination of basal insulin with GLP1-RA will be discussed.

SYMPOSIUM 3

(supported by Merck Pharmaceuticals (HK) Ltd.)

11:45 – 12:15

The economic burden of type 2 diabetes in Hong Kong

Rohini Omkar

Senior Manager, Health Policy and Clinical Evidence, The Economist Intelligence Unit, Singapore

Rohini Omkar[1], Gerard Dunleavy[1], Dustin Hamalainen[2]

[1]The Economist Intelligence Unit, Singapore

[2]Department of Economics, Franklin and Marshall College, U.S.A.

Background: Pre-diabetes is an intermediate state of hyperglycaemia with glycaemic parameters above normal but below the threshold for diabetes. Diabetes is a growing health challenge and up to 70% of people with prediabetes progress to diabetes in their lifespan. Diabetes accounts for 11% of global medical expenditures, exerting significant pressure on the healthcare system. However, proactive interventions and lifestyle changes among those with pre-diabetes have shown a 40-70% relative reduction in onset of diabetes. This study aims to quantify the economic impact of delaying the onset of diabetes in people with prediabetes in Hong Kong.

Method: We developed a Markov cohort simulation model that tracks how a patient cohort evolves along the diabetes pathway, from normoglycaemia to death, from 2021-2050. Using model parameters derived from peer-reviewed research and the best available data, we forecast cost savings in diabetes health resource use in Hong Kong if evidence-based interventions were introduced in 2021, 2025 and 2030 vs a baseline scenario of inaction. Starting with a patient population whose disease states are distributed according to the current prevalence rates, our model simulated a patient's progression from normoglycaemia through prediabetes and T2D in a forecast to 2050.

Results: Our forecasts indicate that implementing a series of interventions that could delay Type 2 diabetes by 5 years in 2021 would result in a saving of USD $42.5 billion by 2050. By 2030, such interventions are forecast to result in a saving of USD $4.62 billion.

Conclusion: Intervening at the prediabetic stage to delay type 2 diabetes offers a significant opportunity for Hong Kong to improve health outcomes and reduce healthcare costs. Prioritising the prevention of diabetes can be justified based on these data that quantifies the benefits in economic terms and provides a broad agenda for action.

12:15 – 12:45

Trends of diabetes care in Hong Kong – where are the unmet needs

Andrea On Yan Luk

Associate Professor, Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

The Hong Kong Hospital Authority (HA) provides health care to about 90% of Hong Kong residents. The Hong Kong Diabetes Surveillance Database was curated using the HA electronic medical record system and captured clinical information of 780,000 people with diabetes during the period 2000-2016. Using this territory-wide database, we examined the temporal trends in the incidence rates of 1) type 1 diabetes and type 2 diabetes, 2) diabetes-related complications including coronary heart disease, heart failure, stroke, lower-extremity amputation, hyperglycaemic crisis and infection, and 3) all-cause and cause-specific mortality. The rates were separately tested in men and women, and in different age categories. In the general population, the incidence rates of type 2 diabetes stablised in people aged ≥40 years but increased in those <40 years. Among people with diabetes, the rates of most diabetes-related complications and all-cause mortality significantly declined, with the declines observed in people aged ≥45 years but not in the younger group. Changes in the healthcare system, reorganisation of delivery of diabetes care and advances in diabetes pharmacotherapeutics contributed to the encouraging trends. However, the lack of improvements in young people with diabetes, who are also contributing to an enlarging pool of the diabetes population, calls for novel strategies to improve disease control in this group.

References

1. Luk AOY, Ke C, Lau ESH, Wu H, Goggins W, Ma RCW, Chow E, Kong APS, So WY, Chan JCN. Secular trends in incidence of type 1 a nd type 2 diabetes in Hong Kong: A retrospective cohort study. PLoS Med 2020; 17:e1003052.
2. Wu H, Lau ESH, Ma RCW, Kong APS, Wild SH, Goggins W, Chow E, So WY, Chan JCN, Luk AOY. Secular trends in all-cause and cause-specific mortality rates in people with diabetes in Hong Kong, 2001-2016: a retrospective cohort study. Diabetologia 2020; 63:757-766.
3. Wu H, Lau ESH, Yang A, Ma RCW, Kong APS, Chow E, So WY, Chan JCN, Luk AOY. Trends in diabetes-related complications in Hong Kong, 2001-2016: a retrospective cohort study. Cardiovasc Diabetol 2020; 19:60.
4. Wu H, Yang A, Lau ESH, Ma RCW, Kong APS, Chow E, So WY, Chan JCN, Luk AOY. Secular trends in rates of hospitalisation for lower extremity amputation and 1 year mortality in people with diabetes in Hong Kong, 2001-2016: a retrospective cohort study. Diabetologia 2020; 63:2689-2698.
5. Luk AOY, Wu H, Lau ESH, Yang A, So WY, Chow E, Kong APS, Hui DSC, Ma RCW, Chan JCN. Temporal trends in rates of infection-related hospitalisations in Hong Kong people with and without diaebtes, 2001-2016: a retrospective study. Diabetologia 2021; 64:109-118.

SYMPOSIUM 4

(supported by Novo-Nordisk Hong Kong Ltd.)

13:45 – 14:25

Role of incretin-based therapy in COVID-19

Soo Lim

Professor, Department of Internal Medicine, Seoul National University College of Medicine, Seoul National University Bundang Hospital, Korea

Based on the data from previous basic and clinical studies and the most recent information available from current publications, we propose some guidelines for the use of glucose-lowering medications in patients with diabetes mellitus (DM) and COVID-19, according to the clinical status of COVID-19, which is based on the WHO clinical progression scale. During the COVID-19 pandemic, we need to be prepared to observe acute hyperglycaemia (exacerbated by inflammation-associated insulin resistance). We recommend DPP4 inhibitors and GLP1 analogues for patients with mild to moderate symptoms, because these agents have proven glucose-lowering efficacy in hospital settings as well as outpatient clinics.

The anti-inflammatory actions of such agents suggest the need for clinical trials with DPP4 inhibitors or GLP1 analogues in patients with DM and COVID-19. Therapy with most Glucagon-like peptide-1 (GLP1) analogues reduced the rate of major adverse cardiac events in recent cardiovascular (CV) outcome trials. In humans, GLP1 and GLP1 analogues were shown to be beneficial for the treatment of chronic inflammatory diseases, such as non-alcoholic fatty liver disease, atherosclerosis, and neurodegenerative disorders and this seems to be primarily mediated by a reduction in inflammatory pathways. People with CV or kidney disease show a worse prognosis during the course of COVID-19. Given that beneficial roles of GLP1 analogues for the prevention of CV and kidney disease have been well established, they could be an ideal option for the treatment of patients with DM at such risk.

In conclusion, COVID-19 is a global pandemic and poses considerable health hazards, especially for patients with DM. Under these circumstances, patients with DM should make a concerted effort to maintain a healthy lifestyle and to decrease potential risk factors. and lipid-lowering medications) is an important topic for current and future research.

References

1. **Lim S**, Bae JH, Kwon HS, Nauck MA. COVID-19 and diabetes mellitus: from pathophysiology to clinical management. **Nat Rev Endocrinol. 2021 Jan;17(1):11-30.**
2. **Lim S**, Bae JH, Kwon HS, Nauck MA. Reply to: Autonomic dyshomeostasis in patients with diabetes mellitus during COVID-19. **Nat Rev Endocrinol. 2021 Mar;17(3):189-190**.
3. **Lim S**, Lim H, Després JP. Collateral Damage of the COVID-19 Pandemic on Nutritional Quality and Physical Activity: Perspective from South Korea. **Obesity (Silver Spring). 2020 Oct;28(10):1788-1790**.
4. **Lim S**, Yoon HI, Song KH, Kim ES, Kim HB. Face masks and containment of COVID-19: experience from South Korea. **J Hosp Infect. 2020 Jun 12:S0195-6701(20)30302-9**.
5. Park JH, Kim JY, Choi JH, Park HS, Shin HY, Lee JM, Kim JW, Ko HJ, Chon S, Kim BK, Kim CS, Lim S. Effectiveness of liraglutide 3 mg for the treatment of obesity in a real-world setting without intensive lifestyle intervention. **Int J Obes (Lond). 2021 Apr;45(4):776-786**.

14:25 – 14:45

Co-formulation of insulin analogues – Review of evidence

Kitty Kit Ting Cheung

Associate Consultant, Division of Endocrinology & Diabetes, Department of Medicine & Therapeutics, Prince of Wales Hospital, Hong Kong

The prevalence of type 2 diabetes is rising in Asia, and the burden of this disease on our healthcare system is getting heavier each year and is reflected by the alarming morbidity and mortality associated with it. Insulin has a significant role in the management of selected patients with type 2 diabetes. However, currently available insulin preparations have their limitations. New insulin preparations, such as co-formulation of insulin analogues are now available for use and show promising results in clinical trials. The major benefits of co-formulation of insulin analogues are the reduction of injection frequency and risk for hypoglycaemia and will be discussed in this talk. With so many insulin options becoming available in the market, physicians have to be reminded that the ultimate treatment regime should be based on efficacy, side-effect profiles, patients' options and cost-effectiveness of the drugs. The importance of individualized risk stratification and personalized care should always be kept in mind.

SYMPOSIUM 5

14:45 – 15:15

Use of metformin in patients with advanced chronic kidney disease

Elaine Yee Kwan Chow

Assistant Professor, Phase 1 Clinical Trial Centre and Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Metformin was originally introduced as an anti-influenza drug and discovered to have glucose lowering properties. Metformin remains the first line oral glucose lowering drug in the treatment of type 2 diabetes. In recent years, pleotropic effects of metformin are increasingly recognised with potential anti-inflammatory, anti-cancer properties. One of the adverse effects of metformin is the potential risk of lactic acidosis which is increased in patients with renal impairment. However, some groups have called for a re-classification of so-called "Metformin-associated lactic acidosis (MALA)" as in fact, lactic acidosis that is primarily attributed to increased metformin concentrations without other contributory conditions is exceedingly rare. The 2020 Kidney Disease: Improving Global Outcomes (KDIGO) guidelines recommended continuation of metformin with dose reductions in Chronic Kidney Disease (CKD) stage 3b and discontinuation when eGFR is below 30 ml/min/1.73m^2.

In this presentation, we will review real-world evidence for the safety, efficacy and cardio-renal outcomes with metformin use in CKD stages 1-4 based on data from Hong Kong and worldwide.

15:15 – 15:45

Vitamins and trace elements in cardiometabolic disease

Kenneth Ka Hei Lo

Research Assistant Professor, Department of Applied Biology & Chemical Technology, The Hong Kong Polytechnic University, Hong Kong

How vitamins and trace elements may relate to cardiometabolic health has attracted attentions from researchers throughout the previous decades. Using two of my previous publications as examples, I will discuss how the biological benefits of nutrients can be quantified in a population level.

The first project to discuss is the analysis on Women's Health Initiative, a cohort study that was conducted among postmenopausal women in United States. We examined the association between dietary manganese intake and the risk of type 2 diabetes and determined whether this association was mediated by circulating markers of inflammation. When compared with the lowest intake category, participants in the highest quintile of manganese intake had a 30% risk reduction of type 2 diabetes. In the nested case-control study, 19% and 12% of type 2 diabetes risk due to manganese were mediated through interleukin 6 and high-sensitivity C-reactive protein, respectively. In other words, higher intake of manganese was associated with a lower type 2 diabetes risk independent of known risk factors, while this association might be partially mediated by inflammatory biomarkers.

The second project is the analysis on National Health and Nutrition Examination Survey, a repeated cross-sectional study to assess the health and nutritional status of general population in the United States. We evaluated the association between abnormal sleep pattern and cardiometabolic disease, and whether the odds were differed by the level of serum vitamin D. Results have shown that the magnitude of the association between sleep complaint and hypertension was stronger in participants with the lowest level of serum vitamin D levels than in the participants with the highest levels. Our observation might provide a hypothesis that is worth verifying in future prospective studies.

In addition to the evidence generated by conventional epidemiological studies, as stated by 2020-2030 Strategic Plan for National Institutes of Health Nutrition Research, the future research projects will strive to approach nutrition in a holistic manner and are suggested to connect an understanding of nutritional pathways, body functions and dietary patterns to the conditions unique to individuals. Several relevant examples will be discussed in the final part of presentation.

16:00 – 16:30

Smart-phone based lifestyle intervention in gestational diabetes

Tong Wei Yew
Consultant, Division of Endocrinology, Department of Medicine, National University Hospital, Singapore

A significant proportion of pregnant women are affected by gestational diabetes mellitus (GDM). GDM is associated with maternal and neonatal complications, and good glycaemic control has been shown to reduce complications. Avoiding excessive gestational weight gain (EGWG) may be another important goal.

Traditional face-to-face consultations and lifestyle intervention programs are resource-intensive, do not allow for learning to be spaced out over a period of time to facilitate better encoding and information retention, or for patients to revisit information at their preferred time. Additionally, patient support and feedback typically occur only during consultations and may not be delivered in a timely manner. The use of mobile technologies could fill these gaps. Women with GDM are generally highly-motivated, driven by concern for the well-being of their babies. The short-lived and finite intervention period (from the diagnosis of GDM until delivery) also reduces the likelihood of technology fatigue.

SMART-GDM is the largest randomized controlled trial (RCT) to date using smartphone app in GDM. In the study, we showed that when added to usual care, the use of a largely automated smartphone app-based lifestyle coaching program resulted in better maternal glycaemic control and composite neonatal outcomes, but did not reduce EGWG among women with GDM.

SYMPOSIUM 6

16:30 – 16:45

Screening for blood glucose and lipids in a Chinese general population

Martin Chi Sang Wong

Professor (Clinical), JC School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

There are generally no symptoms or signs associated with diabetes and dyslipidemia in their early stage. These disorders are recognized as important risk factors for cardiovascular diseases, stroke and total mortality, highlighting the importance of their early detection and timely intervention through screening. A large body of evidence supports screening as a simple and effective measure for earlier diagnosis of diabetes and lipid disorders, which could save costs for the general population and the healthcare system. The benefit of screening also includes a reduced incidence of cardiovascular events. For example, a large-scale Anglo-Danish-Dutch Study of Intensive Treatment in People with Screen-Detected Diabetes in Primary Care (ADDITION) found that the risk of CVD and mortality were lower among individuals with diabetes in the screening group compared with those with diabetes in the no-screening group in the Danish population. Evidence has also pointed to screening relating to lower CVD risk through detecting diseases in earlier stages and promoting heathy changes in lifestyle habits. Further, a cost-related study on ADDITION found that the cost of screening/person discovered to have developed diabetes was offset within 2 years by savings in the healthcare system.

The Hong Kong Reference Framework for Preventive Care for Older Adults in Primary Care Settings, the Primary Health Care Office of the Department of Health has produced guidelines on screening of diabetes and lipid disorders, where individuals aged 45 years and 50 years or above, respectively, should receive three-yearly screening. Nevertheless, there is a scarcity of studies that have examined screening uptake and the factors associated with screening participation. We have performed a population-based telephone survey in the general population, including 2,044 randomly selected residents in Hong Kong to evaluate their screening uptake rate. Their attitude, perception, barriers and facilitators of diabetes and lipid disorder screening were examined.

In this seminar, the preliminary findings of this telephone survey and their associated implications on clinical practice and public health policies will be reported. We aim to identify potential gaps that need to be addressed to ensure successful implementation of the screening initiatives.

16:45 – 17:00

Role of District Health Centre in prevention of NCD

Jimmy Yeung-key Wu
Director (District Health Centre Team), Primary Healthcare Office, Food and Health Bureau, Health Branch, Hong Kong

Non-communicable diseases (NCD) compounded by population ageing create major problem to the healthcare system, particularly to a developed city like Hong Kong. As the leading cause of death globally, NCD kill up to 40 million people each year, equivalent to 70% of all deaths globally. The problem will continue to grow if nothing will be done.

NCD do not only cost life, they also compromise quality of life of the people. There is clear and strong evidence that preventive interventions and improved access to healthcare can reduce the burden of NCD, disability and mortality.

To ensure the long term sustainable development of the Hong Kong healthcare system and safeguard the health of its people, the Government has committed to improve the healthcare system and services, including actively promoting primary healthcare. The Steering Committee on Primary Healthcare Development was established in 2017 to comprehensively review the existing planning of primary healthcare services and draw up a development blueprint. The first District Health Centre (DHC) with a brand new operation mode was set up in Kwai Tsing District and commenced service in 2019. Under the DHC scheme, DHCs will be launched in all 18 districts in Hong Kong.

The objectives of setting up the DHC are, through providing primary / secondary / tertiary prevention programmes, to:

- encourage the people establishing a healthy life style
- enhance disease prevention
- early identification of chronic diseases
- properly manage chronic diseases
- enhance the self-care capability through community rehabilitation programmes

17:00 – 17:20

Complexity of diabetes – learning from patients during clinical trials

Elaine Yee Kwan Chow

Assistant Professor, Phase 1 Clinical Trial Centre and Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Andrea On Yan Luk

Associate Professor, Department of Medicine & Therapeutics, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

Diabetes is a complex and heterogeneous condition. Each patient is unique and represents a complex interplay of genetic and environmental factors, differences in lifestyles and behaviours, health beliefs and attitudes. This is exemplified in the challenge of managing patients with young onset diabetes. Clinical trials provide an opportunity to closely examine these factors at play and act as a testbed for new ideas and interventions.

In this talk, we will describe our experience in the "Precision Medicine to Redefine Insulin Secretion and Monogenic Diabetes (PRISM) in Chinese Patients with Young Onset Diabetes" trial. Through a series of case studies, we will illustrate how advances in technology and use of biogenetic markers can help sub-phenotype and personalise treatment strategies. However, we cannot improve outcomes without concurrently addressing patient's expectations and their psychosocial needs. We will reflect on what we can learn from each patient journey in a clinical trial and implications for our daily practice.

ACKNOWLEDGEMENTS

The Organizing Committee would like to extend their sincere thanks to the following companies for their support to the Diabetes Preventing the Preventables (DPP) Forum 2021.

Sponsors:

Abbott

ASCENSIA Diabetes Care

AstraZeneca 阿斯利康

Boehringer Ingelheim

FRESENIUS KABI

Lilly

MERCK

MSD

NOVARTIS

novo nordisk®

Otsuka

SANOFI

FOOD TIPS

CITYBITE

4pcs of Siumai

Calories: 235kcal (around 116g)

Equals to 1 bowl of rice

Jogging duration to burn 235kcal

50KG ↓ 40MINS

75KG ↓ 27MINS

Calories for more food, visit...

Download Now!

Download on the App Store

GET IT ON Google Play

citybite.adf.org.hk

CITYBITE

Calories & Nutrients Calculator

- Provide exercise and nutrition recommendations and information
- Provide graphs with daily calories and nutrients intake and weekly recommendation
- Provide daily nutrients intake and calorie distribution of each meal according to your meal log

亞洲糖尿病基金會
Asia Diabetes Foundation

ADF is a charitable organisation, governed by the Chinese University of Hong Kong Foundation, developed to initiate and implement medical, scientific and academic research activities to collect and translate current evidence into prevention and control strategies for diabetes and other chronic diseases.

For more diabetes & 3Highs information, please follow #Prevent the Preventable!

Tel: 2637 6624 Website: www.adf.org.hk 正視糖尿病 Prevent the Preventable

diabetesrisk.hk

DPP 2022

亞洲糖尿病基金會
Asia Diabetes Foundation

DIABETES PREVENTING THE PREVENTABLES FORUM 2022

1 May 2022 • Hong Kong

Save the date!

Enquiry:

Asia Diabetes Foundation

Tel: (852) 2637 6624 Email: dpp.secretariat@adf.org.hk Website: www.adf.org.hk

Contour
Evolving with you

For people with Diabetes

It's time for a change: choose Accuracy and Simplicity.

CONTOUR®PLUS ONE
- Simple to use, remarkable accuracy[1]
- Results easily understood with the smartLIGHT® feature[2]
- Second-Chance® sampling: Accurate reading, even after applying more blood to the same strip[3]
- Smart diabetes management with the CONTOUR® DIABETES App

CONTOUR®PLUS
- Untrained users achieved accurate results[4]
- The CONTOUR®PLUS BGMS features Second-Chance® sampling[5]
- Second-Chance® sampling allows patients to apply more blood to the same test strip when the first sample is not enough[5]
- Helps patients waste fewer strips[6], preventing them from pricking their finger a second time

Second-Chance® Sampling

Hypoglycaemia can be a constant threat for people with diabetes. Switching to a blood glucose system with state-of-the-art technology and remarkable accuracy[1] can help to detect such episodes.

Contour plus ONE
Blood Glucose Monitoring System

Contour plus

For more information, please visit www.contourplusone.hk or contact us at 8100 6386

1 Bailey TS. J Diabetes Sci Technol. 2017 Jul;11(4):758-743 (Full paper)
2 Katz LB et al. Expert review of medical devices 2016;13(7):619
3 Harrison B and Brown D. Laboratory and Clinical Sample Reapplications Studies: Performance and Accuracy Capability of a New, Wireless-enabled Blood Glucose Monitoring System That Links to a Smart Mobile Device. Poster presented at the 10th International Conference on Advanced Technologies & Treatments for Diabetes (ATTD); February 15-18, 2017; Paris, France.
4 Freckmann G et al. Diabetes Technol Ther. 2017 April; 19(4): 248-254.
5 CONTOUR®PLUS BGMS user guide revised January 2016.
6 Market Research. Ascensia Diabetes Care, Hall & Partners, conducted online April/May 2015.

Ascensia Diabetes Care Hong Kong Limited Room 3112-13, Millennium City 1 Tower 1, 388 Kwun Tong Road, Kwun Tong, Hong Kong. T: +852 8100 6386 diabetes.ascensia.com

ASCENSIA Diabetes Care

ONE20190501c

FRESENIUS KABI
caring for life

Ketosteril®

GAIN PRECIOUS TIME

- Delays the start of dialysis[1,2]
- Reduces nitrogenous waste[3]
- Preserves renal status[1, 4]
- Ensures safe CKD nutrition therapy[1, 5]
- Good patient adherence & high quality standards

References
1. Garneata L, Stancu A, Dragomir D et al. Ketoanalogues-supplemented Vegetarian Very Low Protein Diet and CKD Progression. J Am Soc Nephrol 2016;27(7):2164-2176. **2.** Brunori G, Viola BF, Parrinello G et al. Effi cacy and safety of a very-low-protein diet when postponing dialysis in the elderly: a prospective randomized multicenter controlled study. Am J Kidney Dis 2007;49:569-580. **3.** Shah AP, Kalantar-Zadeh K, Kopple JD. Am J Kidney Dis. 2015;65:659-673 **4.** Mircescu G, Garneata L, Stancu SH, Capusa C. Effects of a Supplemented Hypoproteic Diet in Chronic Kidney Disease. J Ren Nutr. 2007;17(3):179-188. **5.** Cupisti A, D'Alessandro C, Gesualdo L, et al. Non-Traditional Aspects of Renal Diets: Focus on Fiber, Alkali and Vitamin K1 Intake. Nutrients. 2017 Apr 29;9(5). pii: E444. doi: 10.3390/nu9050444.

FRESENIUS KABI
caring for life

Fresenius Kabi Hong Kong Ltd.
Room 5001-5027, 50/F, Sun Hung Kai Centre,
30 Harbour Road, Wanchai, Hong Kong
Tel : (852) 2152 1330 Fax : (852) 2119 0815
www.fresenius-kabi.com

HK-DA-03-2021

The ONLY GLP-1 RA with Primary and Secondary CVD Prevention[1,†]

trulicity 易週糖
dulaglutide injection once weekly
0.75 mg/0.5 mL, 1.5 mg/0.5 mL

† Trulicity demonstrates primary and secondary prevention of MACE* in T2DM patients at CV risk[1]
*3-component MACE in REWIND (nonfatal stroke, nonfatal MI, or death)

Trulicity significantly reduced the risk of MACE* by 12% despite a majority of patients not having established CVD[1]

ADA/EASD Guideline:
Strongest evidence in dulaglutide for primary prevention but lacking for other GLP-1 RAs[2]

Powerful HbA1c Reduction
2.0% reduction in patients with baseline HbA1c ≥ 8.5% at week 26[1,‡]

No titration required[3]

- ✓ Simple injection
- ✓ Once weekly[3]
- ✓ Hidden needles attached[3]
- ✓ No reconstitution required[3]

‡ n=87, baseline = 9.1%; subset analyses by baseline HbA1c were exploratory

ADA=American Diabetes Association; CV=cardiovascular; CVD=cardiovascular diseases; EASD=European Association for the Study of Diabetes; GLP-1 RA=glucagon-like peptide-1 receptor agonists; MACE=major adverse cardiovascular events; MI=myocardial infarction.

References: 1. Gerstein HC et al. Lancet. 2019;394:121-130. 2. Buse J et al. Diabetologia. 2020;63:221-228. 3. Trulicity Hong Kong Prescribing Information.

Trulicity Abbreviated Prescribing Information.

Indication: Trulicity is indicated for the treatment of adults with insufficiently controlled type 2 diabetes mellitus as an adjunct to diet and exercise: 1. as monotherapy when metformin is considered inappropriate due to intolerance or contraindications 2. in addition to other medicinal products for the treatment of diabetes. **Dosage:** Adult Monotherapy: 0.75 mg once weekly. Add-on therapy: 1.5 mg once weekly. Elderly ≥ 75 years old: Initially 0.75 mg once weekly. Renal impairment: No dosage adjustment is required in patients with mild, moderate or severe renal impairment (eGFR <90 to ≥15 mL/min/1.73m2). **Administration:** To be injected subcutaneously in the abdomen, thigh or upper arm. It should not be administered intravenously or intramuscularly. The dose can be administered at any time of day, with or without meals. **Contraindications:** Hypersensitivity to dulaglutide or any of its excipients. **Special Precautions:** Do not use in patients with type 1 diabetes mellitus or for the treatment of diabetic ketoacidosis. Do not administer IV. Acute pancreatitis. Hypoglycaemia. Limited experience in patients with congestive heart failure. **Adverse Drug Reactions:** Abdominal distention, abdominal pain, acute pancreatitis, constipation, decreased appetite, dehydration, diarrhoea, dyspepsia, eructation, fatigue, first degree atrioventricular block, flatulence, gastroesophageal reflux disease, hypoglycaemia, injection site reactions, nausea, sinus tachycardia, vomiting. EUSPC210C72019. **Full prescribing information is available upon request.**

PP-DG-HK-0158.01/2021 4C_1692

Eli Lilly Asia, Inc.
Unit 3203-3206, 32/F, Chubb Tower, Windsor House, 311 Gloucester Road, Causeway Bay, Hong Kong
Tel : (852) 2572 0160 Fax : (852) 2572 7893 Website : www.lilly.com.hk

Lilly

Steglatro®
(ertugliflozin)

A SGLT2-inhibitor for your adult patients who need additional HbA_{1c} control as their T2DM progresses.[2]

5 mg
ONE 5-mg TABLET DAILY

15 mg
ONE 15-mg TABLET DAILY

Tablets shown represent the actual size

ONCE DAILY | IN THE MORNING | WITH OR WITHOUT FOOD | COULD BE BROKEN OR CRUSHED

* VERTIS MET evaluated STEGLATRO® as an adjunct to diet and exercise in patients with T2DM inadequately controlled by metformin monotherapy. At week 26, the placebo-adjusted least-squares mean change from baseline in HbA1c was -0.7% (95% CI: -0.9, -0.5) and -0.9% (95% CI: -1.0, -0.7) for STEGLATRO® 5 mg and 15 mg respectively, significantly greater than placebo P<0.001

VERTIS MET Study design: VERTIS MET was a double-blind, 26-week, multicenter study with an ongoing 26-week extension evaluating the efficacy and safety of ertugliflozin 5 mg and 15 mg with metformin monotherapy. 821 patients aged ≥18 years with T2DM inadequately controlled with metformin monotherapy were enrolled and assigned in a 1:1:1 ratio to placebo, ertugliflozin 5 mg, or ertugliflozin 15 mg. The primary efficacy end point was change from baseline at week 26 in HbA1c.

STEGLATRO® (Ertugliflozin, MSD) Film-coated tablets 5mg / 15 mg - Selected Safety Information

Indication: **STEGLATRO** is indicated in adults aged 18 years and older with type 2 diabetes mellitus as an adjunct to diet and exercise to improve glycaemic control: • as monotherapy in patients for whom the use of metformin is considered inappropriate due to intolerance or contraindications. • in addition to other medicinal products for the treatment of diabetes. Contraindications: **STEGLATRO** is contraindicated in patients who are hypersensitive to ertugliflozin or any of the excipients and should not be used in patients with type 1 diabetes mellitus, severe renal impairment, end stage renal disease (ESRD) or receiving dialysis. Warnings/Precautions: • Hypotension/Volume depletion—**STEGLATRO** causes an osmotic diuresis, which may lead to intravascular volume contraction. Symptomatic hypotension may occur particularly in patients with impaired renal function (eGFR ≤ 60 ml/min/1.73 m² or CrCl ≤ 60 ml/min), elderly patients (≥ 65 years), patients on diuretics, or patients on anti-hypertensive therapy with a history of hypotension. Before initiating **STEGLATRO**, volume status should be examined and corrected if indicated. Monitor for signs and symptoms after initiating therapy. Temporary interruption of treatment with **STEGLATRO** should be considered until the fluid loss is corrected. • Diabetic ketoacidosis (DKA)—Rare cases of DKA, including life-threatening and fatal cases, have been reported in patients treated with **STEGLATRO**. The presentation of DKA was atypical with only moderately increased blood glucose values, below 14 mmol/l (250 mg/dl). Patients should be assessed for DKA immediately if non-specific symptoms such as nausea, vomiting, anorexia, abdominal pain, excessive thirst, difficulty breathing, confusion, unusual fatigue or sleepiness occur, regardless of blood glucose level. Where DKA is suspected or diagnosed, treatment of **STEGLATRO** should be discontinued immediately. Before initiating **STEGLATRO**, factors that may predispose to DKA should be considered. **STEGLATRO** should be used with caution in patients who may be at higher risk of DKA (include low beta-cell function reserve (e.g., type 2 diabetes with low C-peptide or latent autoimmune diabetes in adults [LADA] or a history of pancreatitis), conditions that lead to restricted food intake or severe dehydration, reduced insulin doses or increased insulin requirements due to acute medical illness, surgery, or alcohol abuse. • Lower limb amputations—An increase in cases of lower limb amputation (primarily of the toe) has been observed in long-term clinical studies with another SGLT2 inhibitor. It is unknown whether this constitutes a class effect. Like for all diabetic patients, it is important to counsel patients on routine preventative foot care. • Hypoglycaemia with concomitant use with insulin and insulin secretagogues—**STEGLATRO** may increase the risk of hypoglycaemia when used in combination with insulin and/or an insulin secretagogue. A lower dose of insulin or insulin secretagogue may be required. • Genital mycotic infections—**STEGLATRO** increases the risk of genital mycotic infections. In trials with SGLT2 inhibitors, patients with a history of genital mycotic infections and uncircumcised males were more likely to develop genital mycotic infections. Patients should be monitored and treated appropriately. • Urinary tract infections—Urinary glucose excretion may be associated with an increased risk of urinary tract infections. Most of the events were mild or moderate and no serious case was reported. Temporary interruption of **STEGLATRO** should be considered when treating pyelonephritis or urosepsis. • Cardiac failure—Experience in New York Heart Association (NYHA) class I-II is limited, and there is no experience in clinical studies with **STEGLATRO** in NYHA class III-IV. • Urine laboratory assessments—Patients taking **STEGLATRO** will test positive for glucose in their urine. Alternative methods should be used to monitor glycaemic control. • Interference with 1,5-anhydroglucitol (1,5-AG) assay—Monitoring glycaemic control with 1,5-AG assay is not recommended as measurements of 1,5-AG are unreliable in assessing glycaemic control in patients taking SGLT2 inhibitors. Alternative methods should be used to monitor glycaemic control. • Lactose—The tablets contain lactose monohydrate. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take **STEGLATRO**. Adverse Reactions • In clinical trials, the most commonly reported adverse reactions were vulvovaginal mycotic infection and other female genital mycotic infections. Serious diabetic ketoacidosis occurred rarely.

Before prescribing, please consult the full prescribing information.

Reference: 1. Rosenstock, J. et al. Diabetes Obes Metab. 2018;20:520-529. **2.** Hong Kong Product Circular (STEGLATRO, MSD).

MSD

Merck Sharp & Dohme (Asia) Ltd.
27/F, Lee Garden Two, 28 Yun Ping Road, Causeway Bay, Hong Kong
Tel: (852) 3971 2888 Fax: (852) 2834 0256
Website: www.msd.com.hk

HK-STE-200045 03/20

Entresto®
sacubitril/valsartan

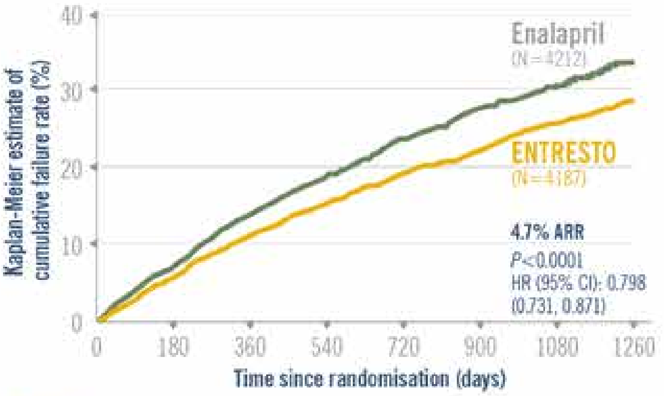
THE SOONER, THE BETTER.

Keep HFrEF patients alive, out of the hospital, and on the right path

The path to slowing disease progression starts with ENTRESTO. Improve survival by reducing the risk of HF events, and give them more time to keep doing what they love.

In the PARADIGM-HF study,

ENTRESTO reduced the risk of CV death or HF hospitalisation as a first event by 20% vs enalapril (primary end point)[1*]



70% of patients were NYHA Class II[2]

In post hoc analyses of the PARADIGM-HF study,

ENTRESTO reduced the risk of sudden cardiac death in HF patients by 20% vs enalapril ($P=0.0082$)[1†]

ENTRESTO reduced the risk of a primary end point event in both the most and least stable HF patients[3‡]

ENTRESTO helped slow the clinical progression of HF vs enalapril[4§]

- ↓ **16%** fewer CV hospitalisations ($P<0.001$)
- ↓ **30%** lower rate of ED visits ($P=0.017$)
- ↓ **16%** less likely to require intensification of outpatient HF therapy

By slowing disease progression, ENTRESTO helps keep HF patients out of the hospital and living longer.

ARR = absolute risk reduction; EF = ejection fraction; ACE = angiotensin-converting enzyme; ARB = angiotensin receptor blocker; HF = heart failure; HFrEF = heart failure with reduced ejection fraction

*PARADIGM-HF was a multinational, randomised, double-blind, active-controlled, 2-arm event-driven trial comparing the long-term efficacy and safety of enalapril and ENTRESTO in 8442 patients in NYHA classes II-IV with chronic symptomatic HF and reduced EF (LVEF ≤40%. This was changed to ≤35% by an amendment to the protocol on 15 December, 2010). Patients were required to discontinue their existing ACE inhibitor or ARB therapy and entered a sequential single-blind run-in period during which patients received treatment with enalapril 10 mg twice daily, followed by treatment with ENTRESTO 49 mg/51 mg twice daily, increasing to 97 mg/103 mg twice daily. Patients were then randomised to the double-blind period of the study to receive either ENTRESTO 97 mg/103 mg (n=4209) or enalapril 10 mg twice daily (n=4233). Patients received treatment for up to 4.3 years, with a median duration of follow-up of 27 months; 3271 ENTRESTO patients were treated for more than 1 year.[1] †This post hoc analysis of PARADIGM-HF examined the effect of ENTRESTO compared with enalapril on mode of death in HF patients (a total of 1546 patients died, including 711 in the ENTRESTO group and 835 in the enalapril group [17% and 19.8% of total patients, respectively]). The majority of deaths were cardiovascular (80.9%; n=1251), and the majority of these CV deaths were categorised as sudden (44.8%) or HF related (26.5%).[1] ‡This post hoc analysis of PARADIGM-HF examined the risk of the primary outcome based on presence of and time from a prior HF hospitalisation as a measure of clinical stability. Patients having their most recent HF hospitalisation within 3 months of screening (n=1611) were defined as least stable, while patients who had no prior HF hospitalisation (n=3125) were defined as the most stable. Compared to patients in the enalapril group, patients in the ENTRESTO group, regardless of presence of and time from a prior HF hospitalisation, had a reduction of at least 19% in the risk of a primary end point event.[1,3] §This post hoc analysis of PARADIGM-HF focused on prespecified measure of nonfatal clinical deterioration. In comparison with the enalapril group, fewer ENTRESTO patients required intensification of medical treatment for HF (520 for ENTRESTO vs 604 for enalapril; HR, 0.84; 95% CI, 0.74-0.94; P=0.003) or an ED visit for worsening HF (HR, 0.66; 95% CI, 0.52-0.85; P=0.001).[1,4]

References: 1. ENTRESTO Core Data Sheet, Version 1.2. Novartis Pharmaceuticals, July 2017. 2. McMurray JJ, et al. *N Engl J Med.* 2014;371(11):993-1004. 3. Solomon SD, et al. *JACC Heart Fail.* 2016;4(10):816-822. 4. Packer M, et al. [Abstract P1705]. *Circulation.* 2015;131(1):54-61.

FULL PRESCRIBING INFORMATION IS AVAILABLE UPON REQUEST

NOVARTIS

Novartis Pharmaceuticals (HK) Ltd
7/F, Citi Tower, One Bay East, 83 Hoi Bun Road,
Kwun Tong, Kowloon, Hong Kong
Tel: 2882 5222 Fax: 2577 0274

Galvus® 保胰健
vildagliptin

毋懼起起伏伏
安心享受每一餐

歐洲藥物管理局 EMA 認可

＊此產品適合關注血糖人士服用

Galvus®保胰健乃醫生處方藥物
並列入醫管局專用藥物名冊，
詳情請向醫生或藥劑師查詢

NOVARTIS

瑞士諾華製藥（香港）有限公司
地址：香港九龍觀塘海濱道83號花旗大廈7樓　電話：2882 5222

HK2007096693

Patients with type 2 diabetes
should expect more after metformin

REALISE THE POTENTIAL

UP TO

80%

ACHIEVED ADA TARGET OF HbA_{1c} <7%

VS OTHER DIABETES TREATMENT[1,2,7,8,9#]

OZEMPIC®

The only once-weekly treatment unifying superior efficacy and CV benefits[1-5]

SUPERIOR GLYCAEMIC CONTROL[1,2*]
Up to 1.8% HbA_{1c} reduction[2]

SUPERIOR AND SUSTAINED WEIGHT LOSS[1-3*]
Up to 6.5kg weight reduction [2]

PROVEN CV BENEFITS[1,3 †]
26% CV risk reduction[1,3§]

§ When added to SOC, which included oral antidiabetic treatment, insulin, antihypertensives, diuretics and lipid-lowering therapies.[3]

Other diabetes treatments refer to sitagliptin, dulaglutide, exenatide ER, liraglutide, canagliflozin and glargine U100. Target refers to American Diabetes Association target of HbA_{1c} <7%.

† In SUSTAIN 6, Ozempic® reduced CV risk (CV death, nonfatal myocardial infarction [MI] or nonfatal stroke) versus placebo in patients with type 2 diabetes at high CV risk treated with standard of care.[1]

* Results apply to Ozempic® across SUSTAIN trials, which included placebo, DPP-4I, SGLT-2I, GLP-1 RA and basal insulin.[1,2]

For adults with type 2 diabetes with established ASCVD or indicators of high ASCVD risk
2019 ADA/EASD consensus report recommends a GLP-1 RA therapy with proven CV benefit[6]

CV=cardiovascular; CVD=cardiovascular disease; ADA=American Diabetes Association; EASD=European Association for the Study of Diabetes;
GLP-1 RA=glucagon-like peptide-1 receptor agonist.

Abbreviated prescribing information Ozempic® (semaglutide). Ozempic 0.25 mg solution for injection in pre-filled pen; Ozempic 0.5 mg solution for injection in pre-filled pen; Ozempic 1 mg solution for injection in pre-filled pen. **Consult Summary of Product Characteristics before prescribing. Presentation:** Ozempic 0.25 mg & 0.5 mg solution for injection: Each pre-filled pen contains 2 mg semaglutide in 1.5 ml solution. Ozempic 1 mg solution for injection: One pre-filled pen contains 4 mg semaglutide in 3.0 ml solution. **Uses:** Ozempic® is indicated for the treatment of adults with insufficiently controlled type 2 diabetes mellitus as an adjunct to diet and exercise as Monotherapy: when metformin is considered inappropriate due to intolerance or contraindications. Combination therapy: in addition to other medicinal products for the treatment of diabetes. For study results with respect to combinations, effects on glycaemic control and cardiovascular events, and the populations studied, see the full Summary of Product Characteristics. **Dosage and administration:** The starting dose is 0.25 mg Ozempic® once weekly. After 4 weeks the dose should be increased to 0.5 mg once weekly. After at least 4 weeks with a dose of 0.5 mg once weekly, the dose can be increased to 1 mg once weekly to further improve glycaemic control. Ozempic® is to be administered once weekly at any time of the day, with or without meals. Ozempic® is to be injected subcutaneously in the abdomen, in the thigh or in the upper arm. Ozempic® should not be administered intravenously or intramuscularly. When Ozempic® is added to existing metformin and/or thiazolidinedione therapy, the current dose of metformin and/or thiazolidinedione can be continued unchanged. When Ozempic® is added to existing therapy of sulfonylurea or insulin, a reduction in the dose of sulfonylurea or insulin should be considered to reduce the risk of hypoglycaemia. **Elderly:** No dose adjustment is required based on age, Therapeutic experience in patients aged ≥75 years of age is limited. **Renal impairment:** No dose adjustment is required for patients with mild, moderate or severe renal impairment. Experience in patients with severe renal impairment is limited. Not recommended for use in patients with end-stage renal disease. **Hepatic impairment:** No dose adjustment is required for patients with hepatic impairment. Experience in patients with severe hepatic impairment is limited. Caution should be exercised when treating these patients with Ozempic®. **Paediatric population:** The safety and efficacy of Ozempic® in children and adolescents below 18 years have not yet been established. No data are available. **Contraindications:** Hypersensitivity to the active substance or to any of the excipients. **Special warnings and precautions for use:** Ozempic® should not be used in patients with type 1 diabetes mellitus or for the treatment of diabetic ketoacidosis. Ozempic® is not a substitute for insulin. There is no experience in patients with congestive heart failure NYHA class IV and Ozempic® is therefore not recommended in these patients. The possibility of gastrointestinal adverse reactions should be considered when treating patients with impaired renal function as nausea, vomiting, and diarrhoea may cause dehydration, which could cause a deterioration of renal function. Patients should be informed of the characteristic symptoms of acute pancreatitis. If pancreatitis is suspected, Ozempic® should be discontinued; if confirmed, Ozempic® should not be restarted. Caution should be exercised in patients with a history of pancreatitis. Patients treated with Ozempic® in combination with a sulfonylurea or insulin may have an increased risk of hypoglycaemia. Consider reducing the dose of sulfonylurea or insulin when initiating treatment with Ozempic®. In patients with diabetic retinopathy treated with insulin and Ozempic®, an increased risk of developing diabetic retinopathy complications has been observed. Caution should be exercised when using Ozempic® in patients with diabetic retinopathy treated with insulin. These patients should be monitored closely and treated according to clinical guidelines. Rapid improvement in glucose control has been associated with a temporary worsening of diabetic retinopathy, but other mechanisms cannot be excluded. **Interactions:** Ozempic® delays gastric emptying and has the potential to impact the rate of absorption of concomitantly administered oral medicinal products. Ozempic® should be used with caution in patients receiving oral medicinal products that require rapid gastrointestinal absorption. No dose adjustment of paracetamol, oral contraceptives (ethinylestradiol and levonorgestrel), atorvastatin, warfarin, digoxin or metformin is necessary when administered with Ozempic®. For further details of these interaction studies, please see the Summary of Product Characteristics. **Pregnancy and lactation:** Ozempic® should not be used during pregnancy. If a patient wishes to become pregnant, or pregnancy occurs during treatment, Ozempic® should be discontinued. Ozempic® should not be used during breast-feeding. Effect of Ozempic® on fertility in humans is unknown. **Driving or using machines:** When Ozempic® is used in combination with a sulfonylurea or insulin, patients should be advised to take precautions to avoid hypoglycaemia while driving and using machines. **Undesirable effects:** The most frequently reported adverse reactions with Ozempic® in clinical trials were gastrointestinal disorders, including nausea, diarrhoea and vomiting. Adverse reactions by system organ class and absolute frequencies identified in all phase 3a trials listed here as Very common (≥1/10): Hypoglycaemia when used with insulin or sulfonylurea, nausea, diarrhoea; Common (≥1/100 to <1/10): Hypoglycaemia when used with other OADs, decreased appetite, dizziness, diabetic retinopathy complications, vomiting, abdominal pain, abdominal distension, constipation, dyspepsia, gastritis, gastro-oesophageal reflux disease, eructation, flatulence, cholelithiasis, fatigue, increased lipase, increased amylase, weight decreased; Uncommon (≥1/1,000 to <1/100): Dysgeusia, increased heart rate, injection site reactions; Rare (≥1/10,000 to <1/1,000): Anaphylactic reaction.

References: 1. Ozempic® packing insert. **2.** Pratley RE, Aroda VR, Lingvay I, et al. Semaglutide versus dulaglutide once weekly in patients with type 2 diabetes (SUSTAIN 7): a randomised, open-label, phase 3b trial. Lancet Diabetes Endocrinol. 2018;6(4):275-286. **3.** Marso SP, Bain SC, Consoli A, et al. Semaglutide and cardiovascular outcomes in patients with type 2 diabetes, N Engl J Med. 2016;375:1834-1844. **4.** Bydureon® [summary of product characteristics]. Sodertalje Sweden: AstraZeneca AB, http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/ human/002020/WC500108241.pdf, Accessed October 10, 2017. **5.** Trulicity® [summary of product characteristics], Utrecht, The Netherlands: Eli Lilly Nederland B.V., http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/002825/WC500179470.pdf, Accessed October 10, 2017. **6.** Buse JB, Wexler DJ, Tsapas A, et al. 2019 update to: management of hyperglycemia in type 2 diabetes, 2018. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care. 2020;43(2):487-493. **7.** American Diabetes Association. Standards of medical care in diabetes—2018. Diabetes Care. 2018;41(suppl 1):S51-S159. **8.** Lingvay I, Catarig AM, Frias JP, et al. Efficacy and Safety of once-weekly Semaglutide versus daily canagliflozin as add-on to metformin in patients with type 2 diabetes (SUSTAIN 8): a double-blind, phase 3b, randomised controlled trial, Lancet Diabetes Endocrinol. 2019;7(11):834-844. **9.** Capehorn MS, Catarig AM, Furberg JK, et al. Efficacy and safety of once-weekly Semaglutide 1.0mg Vs once-daily liraglutide 1.2mg as add-on to 1-3 oral antidiabetic drugs in subjects with type 2 diabetes (SUSTAIN 10). Diabetes Metab. 2020;46(2):100-109.

The materials for Ozempic® contained in this virtual exhibition are approved for use only in Hong Kong. Prescribing information may vary depending on local approval in each country. Therefore, before prescribing any product, always refer to local materials such as the prescribing information and/or the Summary of Product Characteristics (SPC).

novo nordisk®

Further information is avaliable from
Novo Nordisk Hong Kong Ltd
Unit 923A-928, 9/F, Trade Square, 681 Cheung Sha Wan Road, Kowloon, Hong Kong
Tel: +852 3725 1300 Fax: +852 2386 0800 www.novonordisk.com

ONCE-WEEKLY OZEMPIC® semaglutide injection

OZE-D-20210301

SAMSCA® helps you manage hyponatremia while you are treating your patient's primary condition.

Start Samsca®

When fluid restriction is not enough for clinically significant hypervolemic and euvolemic hyponatremia[1]

Indication[2]

SAMSCA® is indicated for the treatment of clinically significant hypervolemic and euvolemic hyponatremia (serum sodium <125mEq/L or less marked hyponatremia that is symptomatic and has resisted correction with fluid restriction), including patients with heart failure and Syndrome of Inappropriate Antidiuretic Hormone (SIADH).

Abbreviated Prescribing Information

Presentation: Tablets 15mg or 30mg of tolvaptan. **Indication:** SAMSCA is indicated for the treatment of clinically significant hypervolemic and euvolemic hyponatremia (serum sodium <125mEq/L or less marked hyponatremia that is symptomatic and has resisted correction with fluid restriction), including patients with heart failure and Syndrome of Inappropriate Antidiuretic Hormone (SIADH). **Dosage:** To be initiated in hospital due to need for evaluation of therapeutic response. The usual starting dose for SAMSCA is 15mg administered once daily without regard to meals. Increase the dose to 30mg once daily, after at least 24 hours, to a maximum of 60 mg once daily, as needed to achieve the desired level of serum sodium. Limit treatment duration to 30 days. **Contraindications:** Hypersensitivity to any component of Samsca. Urgent need to raise serum sodium acutely. Anuria. Hypovolaemic hyponatremia (worsening). Hypernatremia. Patients who cannot perceive or appropriately respond to thirst. Concomitant use of strong CYP3A inhibitors. Pregnancy. Breastfeeding. **Warnings and precautions:** Tolvaptan should be initiated and re-initiated in patients only in a hospital where serum sodium can be monitored closely. Tolvaptan has not been in a setting of urgent need to raise serum sodium acutely. For such patients, alternate treatment should be considered. Osmotic demyelination syndrome is a risk associated with too rapid correction of hyponatremia (eg., >12mEq/L/24 hours). Osmotic demyelination results in dysarthria, mutism, dysphagia, lethargy, affective changes, spastic quadriparesis, seizures, coma and death. Caution should be exercised to ensure patients have adequate access to water and not become overly dehydrated. Urinary outflow must be secured to avoid risk of developing acute urinary retention. If hepatic injury is suspected, discontinue SAMSCA. Avoid use in patients with underlying liver disease. Concomitant use of SAMSCA with other treatments for hyponatremia or other medicinal products that increase serum sodium concentration may result in a higher risk for developing rapid correction of serum sodium and is therefore not recommended. **Drug interactions:** Caution with: co-administration with CYP3A inhibitors, inducers and substrates. P-gp inhibitors, and digoxin. Concomitant use with hypertonic saline is not recommended. The effect of vasopressin analogues such as desmopressin may be attenuated in patients using such analogues to prevent or control bleeding when co-administered with SAMSCA. **Adverse reactions:** The following adverse reactions were reported (>2%) in clinical trials in hyponatremia: Dry mouth, constipation, thirst, asthenia, pyrexia, hyperglycemia, anorexia, pollakiuria or polyuria. See full package insert for further details and other undesirable effect. **Overdosage:** If overdose occurs, estimation of the severity of poisoning is an important first step. Treatment should involve symptomatic and supportive care, with respiratory, ECG and blood pressure monitoring and water/electrolyte supplements as needed. A profuse and prolonged aquaresis should be anticipated. Please refer to full package insert for further details.

References:
1. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure – Web Addenda.
2. Samsca® package insert.

Further information available upon request.

SMC201701 (revised in June 2019)

Samsca® (tolvaptan)

Otsuka Otsuka Pharmaceutical (H.K.) Ltd.
21/F, East Exchange Tower, 38 Leighton Road, Causeway Bay, Hong Kong. Tel: 2881 6299 Fax: 2577 5206

LANTUS®
insulin glargine
GLYCAEMIC CONTROL. ALL DAY. EVERY DAY.

Your Trustable Partner with Years of Experience and Confidence[1]

Time

Effective HbA_{1c} reduction[2]

Fewer hypoglycaemia compared with NPH[3]

Does not require resuspension[4]

Award-winning SoloSTAR® pen[5]

HbA_{1c}=glycated haemoglobin. NPH=neutral protamine Hagedorn insulin.

References: 1. Drug Office, Department of Health. Available at: https://www.drugoffice.gov.hk/eps/drug/productDetail/en/consumer/122821. Accessed: 8 Jun 2020. **2.** Davies M, Storms F, Shutler S, et al. Diabetes Care. 2005;28:1282-8. **3.** Mullins P, Sharplin P, Yki-Jarvinen H, et al. Clin Ther. 2007;29:1607-19. **4.** Lantus® Hong Kong prescribing information. **5.** Sanofi-aventis. Sanofi-aventis' SoloSTAR® insulin pen for Lantus and Apidra receives the prestigious GOOD DESIGN Award. [Press release], 2008 Feb 14.

Prescribing information:
Presentation: 100 IU/ml insulin glargine solution for injection. **Indications** For the treatment of adults, adolescents and children aged 2 years and above with diabetes mellitus. **Dosage** Once daily (at the same time every day), with adjusted individual dosage. **Administration** Subcutaneous injection. Lantus is NOT INTENDED FOR INTRAVENOUS USE since it could result in severe hypoglycaemia. **Contraindications** Hypersensitivity to insulin glargine or to any of the excipients. **Precautions** Lantus has not been studied in children below the age of 2 years. Elderly: progressive deterioration of renal function may lead to a steady decrease in insulin requirements. Renal impairment: insulin requirements may be diminished due to reduced insulin metabolism. Hepatic impairment: insulin requirement may be diminished due to reduced capacity for gluconeogenesis and reduced insulin metabolism. Hypoglycaemia. Intercurrent illness. Combination of Lantus with pioglitazone. **Fertility, pregnancy and lactation** Animal studies do not indicate direct harmful effects with respect to fertility and reproductive toxicity. The use of Lantus may be considered during pregnancy if clinical needed. It is unknown whether insulin glargine is excreted in human milk. **Overdose** Insulin overdose may lead to severe and sometimes long-term and life-threatening hypoglycaemia. Mild episodes of hypoglycaemia can usually be treated with oral carbohydrates. More severe episodes with coma, seizure or neurologic impairment may be treated with glucagon (intramuscular or subcutaneous) or concentrated glucose solution (intravenous). **Interactions** Effects enhanced by oral antidiabetics, ACEI, disopyramide, fibrates, fluoxetine, MAOIs, pentoxifylline, propoxyphene, salicylates, sulfonamide antibiotics. Effects reduced by corticosteroids, danazol, diazoxide, diuretics, glucagons, isoniazid, oestrogens and progestogens, phenothiazine derivatives, somatropin, sympathomimetics, or thyroid hormones, atypical antipsychotics and protease inhibitors. Beta-blockers, clonidine, lithium or alcohol may either potentiate or weaken the effects of insulin. Pentamidine may cause hypoglycaemia, followed by hyperglycaemia. The signs of adrenergic counter-regulation may be reduced or absent under the influence of sympatholytic medicinal products such as Beta-blockers, clonidine, guanethidine and reserpine. **Undesirable effects** Hypoglycaemia. Lipohypertrophy. Injection site reactions. Lipoatrophy. Allergic reactions. Visual impairment. Retinopathy. Oedema. Dysgeusia. Myalgia. **Storage:** Before first use: Store in a refrigerator (2°C - 8°C). Do not freeze. After first use: Store below 30°C. Use within 28 days. Away from direct heat or light. Preparations Lantus Solostar 5 x 3ml (300IU) pre-filled pens. Lantus Vial One 10ml (1000IU) vial per box. **Legal Classification**: Part 1 Poison. **Full prescribing information is available upon request.** API-HK-GLA-17.03

MAT-HK-2000057-1.0-06/2020 AIC-13/17

Sanofi Hong Kong Limited
1/F & SECTION 212 on 2/F, AXA SOUTHSIDE, 38 WONG CHUK HANG ROAD,
WONG CHUK HANG, HONG KONG
Tel: (852) 2506 8333 Fax: (852) 2506 2537

SANOFI

For adult patients with T2DM uncontrolled on OAD or basal insulin[1]

SOLIQUA™
insulin glargine (100 U/mL) & lixisenatide

HELP MORE PATIENTS PUT HIGH PERCENTAGES BEHIND THEM

74% OAD UNCONTROLLED PATIENTS AT GOAL[2]

50% SHORTEN TIME TO ACHIEVE TARGET[3]

2X GREATER A1C DROP THAN GLARGINE ALONE IN BASAL UNCONTROLLED PTS[4]

No ADDITIONAL RISK OF HYPOGLYCEMIA[2, 4]

STUDY DESIGN

LIXILAN-L was an open-label, randomised, parallel-group, multinational, multicentre phase 3 clinical trial designed to evaluate the efficacy and safety of SOLIQUA™ vs insulin glargine 100 Units/ml in 736 patients ≥18 year of age with type 2 diabetes for ≥1 year before screening and uncontrolled on basal insulin with or without up to 2 oral antidiabetics (OADs) for ≥6 months. The primary efficacy endpoint was change in HbA1c from baseline to Week 30. Eligible patients (n=1018) entered a 6-week run in phase in which patients remained on or switched to insulin glargine 100 Units/mL, in case they took another basal insulin, and had their insulin dose titrated/stabilised while continuing metformin (if previously taken). Any other OADs were discontinued. At the end of the run-in period, patients with an HbA1c between 7% and 10%, FPG ≥7.77 mmol/L, and insulin glargine daily dose of 20 to 50 Units, were randomised to either SOLIQUA™(n=367) or insulin glargine (n=369). Soliqua showed significantly greater reduction in HbA1c compared to insulin glargine (-1.1% vs -0.6%, p<0.0001). The safety profile of SOLIQUA™ generally reflected the established safety profiles of its components after 30 weeks of treatment. [2]

LIXILAN-O was an open-label, randomised, parallel-group, multinational, multicentre phase 3 clinical trial designed to evaluate the efficacy and safety of SOLIQUA™ vs insulin glargine 100 Units/ml and lixisenatide in 1170 patients ≥1 year of age with type 2 diabetes for ≥18 before screening and uncontrolled with metformin +/- a second oral antidiabetic ≥3 months. The primary endpoint was change in HbA1c from baseline to Week 30. SOLIQUA™ demonstrated significantly greater HbA1c reduction at Week 30 vs insulin glargine 100 Units/ml and vs lixisenatide (-1.6% vs -1.3% vs -0.85%, p<0.0001). The safety profile of SOLIQUA™ generally reflected the established safety profiles of its components after 30 weeks of treatment. [2]

A post hoc analysis of LIXILAN-O compared efficacy and hypoglycaemia outcomes at early study visits with iGlarLixi (insulin glargine U100 [iGlar] and lixisenatide) vs iGlar alone in patients with type 2 diabetes uncontrolled on oral antidiabetic drugs. Time to control, defined as days to achieve glycated haemoglobin (HbA1c) <7% or fasting plasma glucose (FPG) ≤7.2 mmol/L, was estimated using the Kaplan–Meier method.

Presentation : 100 units of insulin glargine and 33 micrograms lixisenatide in prefilled pen AND 100 units of insulin glargine and 50 micrograms lixisenatide in prefilled pen. **Indications:** In combination with metformin for the treatment of adults with type 2 diabetes mellitus to improve glycaemic control when this has not been provided by metformin alone or metformin combined with another oral glucose lowering medicinal product or with basal insulin. **Dosage:** The dose must be individualised based on clinical response and is titrated based on the patient's need for insulin. The lixisenatide dose is increased or decreased along with insulin glargine dose and also depends on which pen is used. Please refer to the full prescribing information for guidelines. **Administration:** Subcutaneous injection. Soliqua is not intended for intravenous use since it could result in severe hypoglycaemia. Soliqua must not be drawn from the cartridge of the SoloStar pre filled pen into a syringe or severe overdose can result. **Contraindications :** Hypersensitivity to insulin glargine or to any of the excipients. **Precautions :** Soliqua can be used in elderly patients. Elderly: progressive deterioration of renal function may lead to a steady decrease in insulin requirements. Renal impairment: insulin requirements may be diminished due to reduced insulin metabolism. Hepatic impairment: insulin requirement may be diminished due to reduced capacity for gluconeogenesis and reduced insulin metabolism. Hypoglycaemia. Intercurrent illness. Combination of Soliqua with pioglitazone. **Interactions :** Effects enhanced by oral antidiabetics, ACEI, disopyramide, fibrates, fluoxetine, MAOIs, pentoxifylline, propoxyphene, salicylates, sulfonamide antibiotics. Effects reduced by corticosteroids, danazol, diazoxide, diuretics, glucagon, isoniazid, oestrogens and progestogens, phenothiazine derivatives, somatropin, sympathomimetics, or thyroid hormones, atypical antipsychotics and protease inhibitors. Beta-blockers, clonidine, lithium or alcohol may either potentiate or weaken the effects of insulin. Pentamidine may cause hypoglycaemia, followed by hyperglycaemia. The signs of adrenergic counter-regulation may be reduced or absent under the influence of sympatholytic medicinal products such as beta-blockers, clonidine, guanethidine and reserpine. **Fertility, pregnancy and lactation :** Animal studies do not indicate direct harmful effects with respect to fertility and reproductive toxicity. The use of Soliqua may be considered during pregnancy if clinical needed. It is unknown whether insulin glargine or lixisenatide is excreted in human milk. **Overdose :** Insulin overdose may lead to severe and sometimes long term and life-threatening hypoglycaemia. Mild episodes of hypoglycaemia can usually be treated with oral carbohydrates. More severe episodes with coma, seizure or neurological impairment may be treated with glucagon (intramuscular or subcutaneous) or concentrated glucose solution (intravenous). **Undesirable effects :** Hypoglycaemia, injection site reactions. For common, uncommon, rare and very rare undesirable effects, please refer to the full prescribing information. **Storage:** Before first use: Store in a refrigerator (2°C - 8°C). Do not freeze. Protect from light. After first use: Store below 25°C. Use within 28 days. Do not freeze. **Preparation :** Soliqua 5 x 3ml prefilled pen, 6 x 3ml prefilled pen. **Legal Classification:** Part 1, Final & Third Schedules Poison. ***Full prescribing information is available upon request.*** API-HK-SOL-18.03

REFERENCES: 1. SOLIQUA EMA SmPC, March 2017. **2.** Rosenstock J, Aronson R, Grunberger G, *et al*. Benefits of Lixisen, a titratable fixed-ratio combination of insulin glargine plus lixisenatide, versus insulin glargine and lixisenatide monocomponents in type 2 diabetes inadequately controlled on oral agents: The LixiLan-O randomized trial. *Diabetes Care*. 2016;39(11):2026-2035. **3.** Frias J *et al*. Diabetes Obes Metab Publish Ahead of Print. Published online May 21, 2018 at https://www.ncbi.nlm.nih.gov/pubmed/29785837. **4.** Aroda VR, Rosenstock J, Wysham C, *et al*, the LixiLan-L trial investigators. Efficacy and safety of LixiLan, a titratable fixed-ratio combination of insulin glargine plus lixisenatide in type2 diabetes inadequately controlled on basal insulin and metformin: the LixiLan-L randomized trial. *Diabetes Care*. 2016;39(11):1972-1980

Sanofi Hong Kong Limited
1/F and Section 212 on 2/F, AXA Southside, 38 Wong Chuk Hang Road, Hong Kong
Tel : (852) 2506 8333 Fax : (852) 2506 2537 Website : www.sanofi.hk

MAT-HK-0003885-1.0-11/2020

SANOFI

亞洲糖尿病基金會
Asia Diabetes Foundation

Unit K, 4/F, Haribest Industrial Building, 45-47 Au Pui Wan Street, Shatin, New Territories, Hong Kong
Tel: (852) 2637 6624 E-mail: dpp.secretariat@adf.org.hk Website: www.adf.org.hk