DPP 2013

Diabetes Preventing the Preventables

2013 FORUM | Shangri-La Hotel Kuala Lumpur 24-26 May 2013

亞洲糖尿病基金會
Asia Diabetes Foundation

in partnership with:

International Diabetes Federation
IDF Centre of Education 2011-2015

The Chinese University of Hong Kong (CUHK)
Prince of Wales Hospital (PWH)
International Diabetes Federation Centre of Education (IDFCE)

TABLE OF CONTENTS

WELCOME MESSAGE

Dear Faculty and Delegates,

Welcome to Kuala Lumpur, a beautiful city with a rich history and culture. Just like most cities in Asia undergoing rapid transition, diabetes has come a long way over the last two decades. From a simple classification of type 1 and type 2 diabetes, there is now an explosion of information on the phenotypes and genotypes of this complex disease. From a handful of medications, we are now overwhelmed with a growing number of compounds for the treatment, of not just diabetes, but many of its associated conditions and comorbidities.

Diabetes is a lifelong disease and the most challenging aspect in managing diabetes is to help patients manage their disease for the rest of their life. To do this effectively, the care team has to systematically collect and manage a large amount of information, collected over time, in order to assess and advise their patients accordingly.

Our health care systems were never designed to manage these chronic problems and information, which are new health care challenges. This DPP Forum is a meeting designed to address these needs. It aims to foster collaborations amongst all relevant stakeholders, who see the need of a new paradigm shift to change the way chronic care should be delivered, in order to bring out the best of our expertise and technologies to make chronic care accessible, sustainable and affordable.

To this end, we are fortunate to 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 shall also share with you the successes and challenges in implementing the Joint Asia Diabetes Evaluation (JADE) Program, which aims to create a structured environment to allow a professional team to personalize care augmented by information technology.

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

Juliana Chan
Co-director, IDFCE
CEO, ADF

Francis Chow
Co-director, IDFCE
Executive Councillor, ADF

Greg Lyubomirsksy
Executive Councillor, ADF

ORGANIZERS

亞洲糖尿病基金會
Asia Diabetes Foundation

Principle Organizer

Asia Diabetes Foundation (ADF)
Flat 4B, Block B, Staff Quarters
Prince of Wales Hospital
Shatin, New Territories, Hong Kong
www.adf.org.hk

In partnership with

International Diabetes Federation
IDF Centre of Education
2011-2015

The Chinese University of Hong Kong (CUHK)
Prince of Wales Hospital (PWH)
International Diabetes Federation Centre of Education (IDFCE)

Organizing Committee

Chairman:	Prof. Juliana Chan
Co-chairman:	Dr. Francis Chow Dr. Greg Lyubomirsky
Members:	Ms. Nicola Brown Ms. Sally Chau Ms. Vanessa Lau Dr. Andrea Luk Dr. Risa Ozaki Mr. Patrick Wong Dr. Rose Yeung

FACULTY

Juliana CHAN

Professor of Medicine and Therapeutics,
The Chinese University of Hong Kong, Hong Kong

Professor Chan is a Professor of Medicine and Therapeutics, at the Chinese University of Hong Kong. She is also the founding director of the Hong Kong Institute of Diabetes and Obesity and the CEO of the Asia Diabetes Foundation. Her major areas of interest include genetic epidemiology, clinical trials, and care models in diabetes. The diabetes risk stratification program and collaborative care model developed by her team since the mid-90s has formed the framework for the Hong Kong Government chronic care model. This care model has also been successfully translated to the community through private-public partnerships.

Young-Min CHO

Assistant Professor, College of Medicine,
Seoul National University, Seoul, Korea

Dr. Young-Min Cho graduated from the Seoul National University College of Medicine in 1996. He received his M.S. degree in 2000 and PhD in 2004 at the Seoul National University College of Medicine. Between 2003 and 2009, Dr. Cho was a Clinical Professor at the Seoul National University Hospital. In 2009, Dr. Cho attended the University of British Columbia, Canada, as a visiting scholar and his research subject was incretin biology. Upon his return to Korea in 2010, Dr. Cho has been working as an Assistant Professor at the Seoul National University College of Medicine.

Ming-Chia HSIEH

Endocrinology and Metabolism Division Director,
Changhua Christian Hospital, Changhua, Taiwan

Dr. Ming-Chia Hsieh is the Vice Superintendent of Diabetes e-Hospital and CEO of Bariatric Surgery and Diabetes Health Management Center of Changhua Christian Hospital in Taiwan. He received his medical training from Kaohsiung Medical University. His research interests span from diabetes pharmacogenetics to pharmaco-epidemiology.

Andrea LUK

Associate Consultant, Department of Medicine and Therapeutics,
Prince of Wales Hospital, Hong Kong

Dr. Andrea Luk is currently an Associate Consultant, within the Department of Medicine and Therapeutics, Prince of Wales Hospital. She is also the Deputy Medical Director of the Asia Diabetes Foundation. Dr. Luk graduated from the University of Auckland, New Zealand, in 1999. Since internship, she worked at St Vincent's Hospital and St George Hospital in New South Wales, Australia. Upon returning to Hong Kong in 2004, Dr. Luk pursued her specialist training in endocrinology and diabetology, and in 2007, she was conferred her fellowship with the Hong Kong College of Physicians. Her research focus is diabetes epidemiology in Hong Kong, with special interests in diabetic kidney disease and young-onset diabetes.

Jonathan SHAW

Associate Director, Baker IDI Heart and Diabetes Institute, Melbourne, Australia

Professor Jonathan Shaw is an academic clinician, who has authored over 200 peer-reviewed scientific papers. He is the Past-President of the International Diabetes Epidemiology Group, and has been a member of Expert Committees on diabetes constituted by the WHO, the ADA, and the IDF. In 2006, he was awarded the global Novartis Diabetes Award (for research), and in 2011 was awarded the Peter Bennett Award of the International Diabetes Epidemiology Group.

David SIMMONS

Diabetes Clinical Lead, Institute of Metabolic Science, Addenbrookes Hospital, Cambridge University Hospitals NHS Foundation Trust, England

Professor David Simmons has established and run major research and service development programmes in New Zealand, Australia, and England testing different interventions to prevent diabetes and its complications. He has been president of the Australasian Diabetes in Pregnancy Society, co-chaired national working groups into diabetes in pregnancy, and currently chairs the Diabetes UK Health Professional Education Working Group. He has won several national and international awards and has over 200 publications relating to diabetes and rural health.

Wingyee SO

Consultant, Prince of Wales Hospital, Hong Kong

Dr. Wing-Yee So is currently a Consultant, Clinical Service Coordinator & Director of the Diabetes, Metabolism and Endocrine Centre at the Prince of Wales Hospital, as well as an Honorary Clinical Associate Professor at the Chinese University of Hong Kong. She is also the chairman of the Quality Sub-committee of the Central Committee on Diabetic Service in the Hong Kong Hospital Authority, and reviews diabetes service data in the public sector for monitoring, benchmarking and quality improvement.

Matthias TOH

Adjunct Assistant Professor, Saw Swee Hock School of Public Health, National University of Singapore, Singapore

Dr. Matthias Toh is the Head of Information Management Department and a Consultant Public Health Physician of the National Healthcare Group (NHG) in Singapore. He is also an Adjunct Assistant Professor of Saw Swee Hock School of Public Health (NUHS), and the Associate Program Director of the National Preventive Medicine Residency Program. He has special interest in non-communicable disease prevention and control, health promotion, and primary care. Since 2005, he has been one of the key clinical champions in the design and building of the first operational Chronic Disease Registry (CDMS) in the NHG and Singapore.

Yu-Tse TSAN

M.D. in Department of Emergency Medicine, Taichung Veterans General Hospital, Taichung, Taiwan

Dr. Yu-Tse Tsan completed his medical education in Kaohsiung Medical University in 1998 after which he began his resident training in internal medicine and emergency medicine at Taichung Veterans General Hospital. He completed a Toxicology Fellowship in 2005, under the direction of Professor Hung and obtained a Master's degree in 2007 from the Institute of Occupational Medicine and Industrial Hygiene, National Taiwan University College of Public Health. He began his doctoral education in 2009 under the direction of professor Pau-Chung Chen, with a focus on pharmaco-epidemiology, examining associations between diabetes, chronic hepatitis, and cancer within the Taiwanese National Health Insurance Research Database (NHIRD).

PROGRAMME

SATURDAY 25TH MAY 2013

9:00-9:15	Welcome remarks and meeting objectives	Juliana Chan and Francis Chow
Keynote Lecture 1 (supported by AstraZeneca)		Chair: Larry Ho, Taiwan
9:15-10:00	Is integrated and holistic care in diabetes possible?	David Simmons, United Kingdom
10:00-10:20	JADE Program – challenges and progress	Juliana Chan, Hong Kong
10:20-10:40	Discussion	All
10:40-11:00	Coffee break	
Symposium 1: Therapeutic Challenges in Asian Populations		Chair: Peter Tong, Hong Kong
11:00-11:30	Young-onset diabetes in Asia	Andrea Luk, Hong Kong
11:30-12:00	The use of statins in real practice	Ming-Chia Hsieh, Taiwan
12:00-12:30	DPPIV inhibitors – an Asian perspective	Young-Min Cho, Korea
12:30-12:50	Panel discussion	All
12:50-14:00	Lunch in Kedah Room	
Keynote Lecture 2		Chair: Su-Yen Goh, Singapore
14:00-14:45	New perspectives on causes and consequences of diabetes and its comorbidities	Jonathan Shaw, Australia
14:45-15:00	Discussion	All
Symposium 2 : What can we learn from large databases?		Chair: Yook-Chin Chia, Malaysia
15:00-15:30	Singapore experience	Matthias Toh, Singapore
15:30-15:50	Coffee Break	
15:50-16:20	Hong Kong experience	Wingyee So, Hong Kong
16:20-16:50	Taiwan experience	Yu-Tse Tsan , Taiwan
16:50-17:10	Panel Discussion	All
17:10-17:20	Closing remarks	Greg Lyubomirsky and Juliana Chan
MSD Evening Dinner Symposium - Perak & Selangor 1 Room		Chair: Francis Chow, Hong Kong
18:30-21:00	*This event is kindly sponsored by MSD and evening dinner is provided.*	
	Causes and consequences of hypoglycemia	Alice Kong, Hong Kong
	Optimizing diabetes care in high risk patients	Juliana Chan, Hong Kong

KEYNOTE LECTURE 1

Is integrated and holistic care in diabetes possible?

Saturday 25th May 2013 9:15 a.m.

David SIMMONS

Diabetes Clinical Lead, Institute of Metabolic Science, Addenbrookes Hospital, Cambridge University Hospitals NHS Foundation Trust, England

While some indigenous peoples look upon health as having 4 components (physical, mental, spiritual and 'family' health), Westernised health services have increasingly divided physical health from psycho-social aspects. Although diabetes services have developed educational programmes to ensure that patients (and health care professionals) know what diabetes care is needed, and technological and pharmacological advances allow improvements in many aspects of care, for many of those with diabetes, it is the psycho-social and psychological issues that are the 'barriers' to improving physical health. For others with diabetes, access to the level of expertise that they require arises from the complexity of our health services (with their division into primary and secondary care and associated communication problems), out of pocket expenses, physical access to care and other 'systems' issues. Access to the services to address other health conditions (diabetes and non-diabetes related) are often also required for many of those with diabetes. Defining these five groups of barriers to diabetes care and self-care (psychological, psychosocial, educational, systems, internal physical) for a given population should allow the development of an overarching framework to facilitate an integrated and holistic approach to diabetes, built around the needs of any given individual. Examples of successful strategies do exist.....

KEYNOTE LECTURE 1

JADE Program – challenges and progress

Saturday 25th May 2013 10:00 a.m.

Juliana CHAN

Professor of Medicine and Therapeutics,
The Chinese University of Hong Kong, Hong Kong

Since its launch in 2007, the JADE Program, designed to comply with the IDF recommendation of diabetes care delivery using teams, registries, protocols and regular support, continues to gather momentum in its pursuit of using information technology and collaborative care for quality improvement. To date, more than 50,000 patients have been enrolled by 200 doctors from 8 countries. Preliminary analysis suggested that the systematic evaluation of risk factors and complications has reduced clinical inertia and non-compliance with improved control of all risk factors upon reassessment. Although these data strongly suggested that by changing the clinic environment and using a trio team of doctor, nurse and assistant can improve the efficiency of clinical assessment, data collection, risk communication, feedback and decision making, many barriers have been encountered during the project implementation. First and foremost, many patients are not aware of the importance of periodic assessments to detect silent risk factors, complications and deterioration of metabolic control for early preventive action. Many of them are also not familiar with the concept of learning from a diabetes educator to improve self care. In areas with a largely private or copayment system, many patients are not willing to pay out of pocket for these clinical and laboratory assessments. While many centres and clinics have nurses or educators who counsel and teach patients to self monitor blood glucose and give insulin injections, the majority of them are not empowered enough to carry out clinical assessments and make clinical decisions under the supervision of the doctors. In centres where an electronic medical record system exists, the double entry of data into the JADE portal can be seen as a burden. Yet, nearly all doctors do not have easy access to the central database, while the JADE portal enables the care team to build their own registry for benchmarking and analysis purpose. Despite these challenges, in many sites where doctors and nurses have explained the purpose of these regular comprehensive assessments and using a nurse to increase the efficiency and cost-effectiveness of doctor-patient communication, the overall feedback from the team and patients have been positive. By creating a more structured environment and having an additional person to help the doctor to engage patients and maintain the relationship, personalized care with individualization of goals and treatment thus becomes possible. The challenge lies in providing incentives to both doctors and nurses to continue with this practice. By collectively showing that these quality improvement programs can save lives and money, it is anticipated that a diabetes centre led by a doctor-nurse team will eventually become a standard practice, with the doctor serving as a clinical leader with the nurse as the case manager, supported by information technology for ongoing evaluation.

SYMPOSIUM 1

THERAPEUTICS CHALLENGES IN ASIAN POPULATIONS

Young-onset diabetes in Asia

Saturday 25th May 2013 11:00 a.m.

Andrea LUK

Associate Consultant, Department of Medicine and Therapeutics,
Prince of Wales Hospital, Hong Kong

Previously considered a disease that affects the middle-age and elderly, the past two decades have witnessed a growing epidemic of type 2 diabetes among youth. The disturbing trend of progressive decline in the age of disease onset has widespread health and economic implications, as major diabetic complications will affect patients during their peak productive years. Obesity as a by-product of urbanization and affluence is the primary driving force for young-onset diabetes. Not infrequently, cardio-metabolic risk factors such as hypertension and dyslipidaemia precede the diagnosis of diabetes. Interestingly, a large proportion of the young Asian type 2 diabetic population is of normal body weight. It is speculated that beta-cell dysfunction may be the predominant abnormality underlying the aetio-pathogenesis of diabetes in these individuals. Moreover, evidence is gathering to implicate genetic factors, rather than auto-immunity, in contributing to beta-cell abnormalities.

Young patients are as susceptible to development of vascular complications as their older counterparts. Based on the Hong Kong Diabetes Registry, one fifth developed diabetes before the age of 40 years, and of those, 90 percent had type 2 diabetes. Up to 35 and 20 percent of the young-onset group had albuminuria and retinopathy, respectively. By 60 years of age, 15 percent have developed cardiovascular disease while 13 percent progressed to end-stage renal failure. Despite high rates of complications, young patients have greater difficulties in meeting metabolic targets. Additionally, they are less likely to receive high-impact therapy such as statins and renin-angiotensin system inhibitors. Thus, there is an urgent need of more effective intervention and agreement global risk factor control in this young group.

SYMPOSIUM 1

THERAPEUTICS CHALLENGES IN ASIAN POPULATIONS

The use of statins in real practice.

Saturday 25th May 2013 11:30 a.m.

Ming-Chia Hsieh MD. PhD

Endocrinology and Metabolism Division Director,
Changhua Christian Hospital, Changhua, Taiwan

Dyslipidemia is a major risk factor for cardiovascular disease in diabetic patients. Low density lipoprotein (LDL) cholesterol is an independent risk factor for coronary heart disease in patients with type 2 diabetes. Many studies have revealed that statins significantly reduce cardiovascular morbidities and mortality in high risk patients including patients with type 2 diabetes. However, the goal attainment rate of LDL<100mg/dl was only between 25-60% in the real world. This might be due to physician and patient inertia. Statins have some adverse effects, but the benefit of statins in preventing heart disease may outweigh these adverse effects. The group recommends conducting further randomized studies, strengthening the health care system to promote early detection of hyperlipidemia, and prescribing statins in diabetic patients to prevent cardiovascular disease.

SYMPOSIUM 1

THERAPEUTICS CHALLENGES IN ASIAN POPULATIONS

DPPIV inhibitors – an Asian perspective

Saturday 25th May 2013 12:00 noon

Young-Min CHO

Assistant Professor, College of Medicine,
Seoul National University, Seoul, Korea

Contrary to the incretin physiology of Europeans, the incretin effects are comparable between subjects with normal glucose tolerance and type 2 diabetes in Asians. Therefore, the responses to DPP-4 inhibitors may show ethnic differences. In this study, we compared the glucose-lowering efficacy of dipeptidyl peptidase-4 (DPP-4) inhibitors between Asian and non-Asian patients with type 2 diabetes. We searched MEDLINE, EMBASE, LILACS, CENTRAL, ClinicalTrials.gov and conference proceedings. Studies were eligible if they were randomized controlled trials with a treatment duration of at least 12 weeks, compared a DPP-4 inhibitor with a placebo as either monotherapy or oral combination therapy, had information on ethnicity and HbA1c values and were published or described in English. A systematic review and meta-analysis with a meta-regression analysis was conducted. Among 809 potentially relevant studies, 55 trials were included. A meta-analysis revealed that DPP-4 inhibitors lowered HbA1c to a greater extent in studies with 50% Asian participants (weighted mean difference [WMD] -0.92%; 95% CI -1.03, -0.82) than in studies with <50% Asian participants (WMD -0.65%; 95% CI -0.69, -0.60). The between-group difference was -0.26% (95% CI -0.36, -0.17, $p < 0.001$). The baseline BMI significantly correlated with the HbA1c-lowering efficacy of DPP-4 inhibitors. The RR of achieving the goal of HbA1c <7.0% (53.0 mmol/mol) was higher in studies with 50% Asian participants (3.4 [95% CI 2.6, 4.7] vs 1.9 [95% CI 1.8, 2.0]). The fasting plasma glucose-lowering efficacy was higher with monotherapy in the Asian-dominant studies, but the postprandial glucose-lowering efficacy and changes in body weight were comparable between the two groups. In conclusion, DPP-4 inhibitors exhibit a better glucose-lowering efficacy in Asians than in other ethnic groups; this requires further investigation to understand the underlying mechanism, particularly in relation to BMI.

References

Oh TJ, Kim MY, Shin JY, Lee JC, Kim S, Park KS, Cho YM. The Incretin Effect in Korean Subjects with Normal Glucose Tolerance or Type 2 Diabetes. Clin Endocrinol (Oxf). 2013 Feb 13. doi: 10.1111/cen.12167. [Epub ahead of print]

Kim YG, Hahn S, Oh TJ, Kwak SH, Park KS, Cho YM. Differences in the glucose-lowering efficacy of dipeptidyl peptidase-4 inhibitors between Asians and non-Asians: a systematic review and meta-analysis. Diabetologia. 2013 Jan 24. [Epub ahead of print]

Cho YM, Merchant CE, Kieffer TJ. Targeting the glucagon receptor family for diabetes and obesity therapy. Pharmacol Ther. 2012 Sep;135(3):247-78.
Young patients are as susceptible to development of vascular complications as their older counterparts. Based on the Hong Kong Diabetes Registry, one fifth developed diabetes before the age of 40 years, and of those, 90 percent had type 2 diabetes. Up to 35 and 20 percent of the young-onset group had albuminuria and retinopathy, respectively. By 60 years of age, 15 percent have developed cardiovascular disease while 13 percent progressed to end-stage renal failure. Despite high rates of complications, young patients have greater difficulties in meeting metabolic targets. Additionally, they are less likely to receive high-impact medications such as statins and renin-angiotensin system inhibitors. Against the observations of suboptimal disease management and resultant high complication risks, there is an urgent need of more effective intervention including aggressive global risk factor control in this young group.

KEYNOTE LECTURE 2

New perspective on causes and consequences of diabetes and its comorbidities

Saturday 25th May 2013 2:00 p.m.

Jonathan SHAW

Associate Director, Baker IDI Heart and Diabetes Institute, Melbourne, Australia

The prevalence of diabetes continues to rise globally, with much of the burden being felt in developing countries, particularly in the Asia Pacific region. Urbanization is a major driver of the rising prevalence, leading to adverse changes in diet and physical activity and to weight gain. In recent years, the role of sedentary behavior as a risk factor that is separate from lack of purposeful exercise has emerged as an important and potentially modifiable risk factor. Novel risk factors for type 2 diabetes continue to be explored. Evidence that environmental toxicants (including air pollution, BPA in plastics and persistent organic pollutants) might have a role to play in explaining the rise of diabetes, cardiovascular disease and perhaps obesity that has paralleled Westernization and industrialization is starting to emerge.

There is some evidence that, at least in certain settings, the incidence of diabetic complications is falling, particularly in type 1 diabetes. However, the numbers of people starting renal replacement therapy due to diabetes continues to grow, and this will create a significant problem for developing countries, as the capacity to afford renal replacement therapy develops at a time that the number of people with diabetes is rapidly rising. A number of studies report downward trends in amputation rates, but in both the UK and the USA 5-10 fold variation in amputation rates between different geographical areas suggest significant variation in availability and standards of care. Cancer is being increasingly recognized as occurring more frequently in diabetes, and may take over from CVD as the main cause of death.

SYMPOSIUM 2

WHAT CAN WE LEARN FROM LARGE DATABASES?

Singapore experience

Saturday 25th May 2013 3:00 p.m.

Matthias TOH

Adjunct Assistant Professor, Saw Swee Hock School of Public Health, National University of Singapore, Singapore

Since 2000, the National Healthcare Group (NHG) is one of the public-sector Regional Health Systems (RHS) providing primary and specialist care in Singapore. In 2006, the NHG started to build a chronic disease registry with business intelligence to deliver comprehensive care to people with diabetes mellitus, hypertension and dyslipidaemia. Commissioned in 2007, the Chronic Disease Management System (CDMS) links key clinical and registration data of patients with chronic conditions across the RHS. The CDMS performs 3 major functions: (1) identification of population with chronic conditions; (2) clinical decision support at point of care; and (3) measurement of clinical outcomes. The CDMS also facilitates remote care management of patients with cardiovascular conditions. Till 2012, modules for stroke, coronary heart disease, heart failure, asthma and chronic obstructive lung disease were integrated into the CDMS. As a large database for chronic care delivery, the CDMS has made clinical monitoring and outcome management for patients with chronic diseases more efficient.

SYMPOSIUM 2

WHAT CAN WE LEARN FROM LARGE DATABASES?

Hong Kong experience

Saturday 25th May 2013 3:50 p.m.

Wingyee SO

Consultant, Prince of Wales Hospital, Hong Kong

Hong Kong is epitomic of the epidemic of diabetes in China. One-tenth of the population has diabetes, and diabetes per se is the most important cause for major cardio-renal events. Among the diabetic population, the majority is under the care of the Hospital Authority of Hong Kong (HA), which poses a major burden to the public health care system.

The use of an electronic health record (eHR) and health data for diabetes and chronic disease management is a long continuous quality improvement (CQI) journey. It involves the use of eHR in patient care and patient and physician engagement. Furthermore, there is combination of individual eHR data to develop population health care and use of health data for quality assurance and CQI. The success of eHR is based on the presence of a dedicated information technology team with step by step enhancement and planning, as well as user engagement. Collaboration with academia will hopefully further enhance the care delivery with a focus on improvement science.

SYMPOSIUM 2

WHAT CAN WE LEARN FROM LARGE DATABASES?

Taiwan experience

Saturday 25th May 2013 4:20 pm.

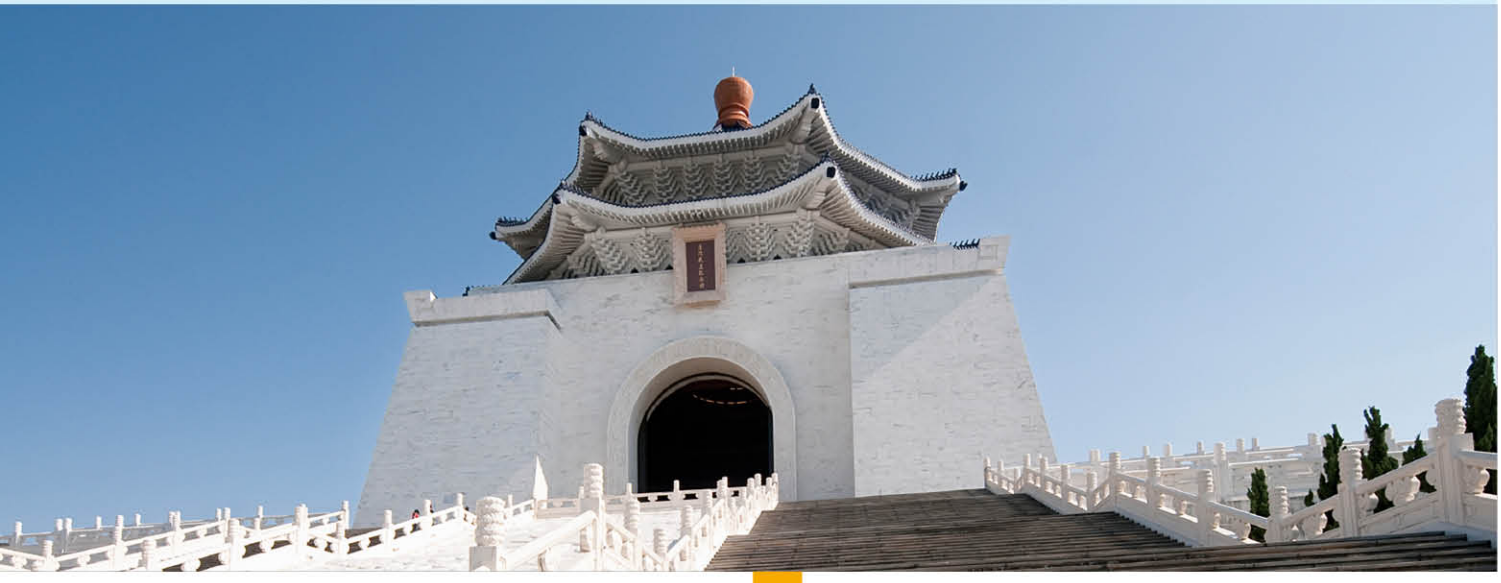
Yu-Tse TSAN

M.D. in Department of Emergency Medicine,
Taichung Veterans General Hospital, Taichung, Taiwan

Taiwan launched a single-payer National Health Insurance program on March 1, 1995. As of 2007, 22.6 million of Taiwan's 23.0 million population (98%) were enrolled in this program. The database of this program contains registration files and original claim data for reimbursement. Large computerized databases derived from this system by the Bureau of National Health Insurance, Taiwan (BNHI) maintained by the National Health Research Institutes (NHRI), are provided to scientists in Taiwan for research purposes. Strict confidentiality guidelines are closely followed in accordance with personal electronic data protection regulations.

We used to retrieve admission and outpatient visit records, which included information on patient characteristics, including sex, date of birth, date of admission, date of discharge, dates of visits, and up to five discharge diagnoses or three outpatient visit diagnoses. The files also contained patient prescription information, including the names and dosages of the medications prescribed, duration of each prescription, and total expenditure. Because the drug use data were obtained from a historical database that included all available prescription information, we were able to exclude the possibility of recall bias. Based on a survey of the research community, specific research subjects were selected, which included cancer, diabetes, and catastrophic illness datasets. These databases have previously been used for epidemiological research, and the information provided regarding prescription use, diagnoses, and hospitalizations is of high quality.

In medicine and health, the value of the academic research is internationally recognized, while also helps to improve the quality of medical care, and to promote universal health.



ACKNOWLEDGMENTS

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 2013':

Gold Sponsor

MSD

Bronze Sponsor

Other Sponsors

Abbott Nutrition

NOVARTIS

MIMS

See you next year

DPP2014
Hong Kong
23-25 May 2014

Notes

Notes

Notes

MORE THAN 31.6 MILLION PRESCRIPTIONS WORLDWIDE

5YEARS HELPING YOU HELP YOUR PATIENTS

MORE THAN 10.8 MILLION PRESCRIPTIONS WORLDWIDE

Once-daily Januvia® (sitagliptin, MSD)

As monotherapy or in combination with other widely prescribed agents

JANUVIA® delivers substantial glucose reductions for a broad range of patients with type 2 diabetes

In clinical studies,[2]

- Substantial HbA_{1c} reductions through a physiologic mechanism of action
- Generally weight-neutral therapy with a low risk of hypoglycemia
- Generally well-tolerated therapy
- Always once-daily dosing

Janumet® (sitagliptin/metformin, MSD)

As initial therapy or for patients not controlled on metformin

JANUMET® provides powerful HbA_{1c} reductions to help more patients with type 2 diabetes get to goal

In clinical studies,

- Powerful HbA_{1c} reductions to help more patients get to goal (HbA_{1c} goal <7%)[2]
- Weight loss and less hypoglycemia (with sitagliptin 100 mg + metformin) vs a sulfonylurea + metformin[3]
- Comprehensive mechanism that targets 3 key defects of type 2 diabetes[2]

References: 1. IMS Health, NPA Plus™, October 2006 – February 2012. **2.** Data on file, MSD Malaysia. **3.** Nauck MA, Meininger G, Sheng D, et al; for Sitagliptin Study Group 024. Efficacy and safety of the dipeptidyl peptidase-4 inhibitor, sitagliptin, compared to the sulfonylurea, glipizide, in patients with type 2 diabetes inadequately controlled on metformin alone: a randomized, double-blind, non-inferiority trial. *Diabetes Obes Metab.* 2007;9:194–205.

Before initiating therapy, please consult the full Prescribing Information.

Selected Safety Information about JANUVIA

Indications:

JANUVIA is indicated as an adjunct to diet and exercise to improve glycemic control in patients with type 2 diabetes mellitus as initial therapy, alone or in combination with metformin, or as an add-on to metformin, PPARγ agonist, sulfonylurea, sulfonylurea + metformin or PPARγ agonist + metformin when the current regimen, with diet and exercise does not provide adequate glycemic control. JANUVIA can also be used as an adjunct to diet and exercise to improve glycemic control in combination with insulin (with or without metformin).

JANUVIA is contraindicated in patients who are hypersensitive to any components of this product. JANUVIA should not be used in patients with type 1 diabetes or for the treatment of diabetic ketoacidosis.

A dosage adjustment is recommended in patients with moderate or severe renal insufficiency or with end-stage renal disease requiring hemodialysis or peritoneal dialysis.

As with other antihyperglycemic agents, when JANUVIA was used in combination with a sulfonylurea or with insulin, medications known to cause hypoglycemia, the incidence of sulfonylurea- or insulin-induced hypo glycemia was increased over that of placebo. To reduce the risk of sulfonylurea- or insulin-induced hypoglycemia, a lower dose of sulfonylurea or insulin may be considered.

There have been postmarketing reports of serious hypersensitivity reactions in patients treated with JANUVIA including anaphylaxis, angioedema, and exfoliative skin conditions including Stevens- Johnson syndrome. Because these reactions are reported voluntarily from a population of uncertain size, it is generally not possible to reliably estimate their frequency or establish a causal relationship to drug exposure. Onset of these reactions occurred within the first 3 months after initiation of treatment with JANUVIA, with some reports occurring after the first dose. If a hypersensitivity reaction is suspected, discontinue JANUVIA, assess for other potential causes for the event, and institute alternative treatment for diabetes.

In clinical studies as monotherapy and in combination with other agents, the adverse experiences reported regardless of causality assessment in ≥1% of patients and more commonly than placebo or the active comparator included hypoglycemia, upper respiratory tract infection, headache, peripheral edema, , diarrhea, nausea, vomiting, cough, dyspepsia, flatulence, fungal skin infection and influenza.

Selected Safety Information About JANUMET

Indications:

JANUMET can be used to improve glycemic control as an adjunct to diet and exercise as initial therapy, in patients inadequately controlled on metformin or sitagliptin alone, in patients using sitagliptin + metformin in combination, in combination with insulin, in combination with a sulfonylurea in patients inadequately controlled with any 2 of the 3 agents: metformin, sitagliptin, or a sulfonylurea and in combination with a PPARγ agonist in patients inadequately controlled with any 2 of the 3 agents: metformin, sitagliptin or a PPARγ agonist.

Selected Safety Information About JANUMET

JANUMET is contraindicated in patients with renal disease or renal dysfunction, e.g., as suggested by serum creatinine levels ≥1.5 mg/dL [males], ≥1.4 mg/dL [females]; known hypersensitivity to any component of JANUMET; or acute or chronic metabolic acidosis, including diabetic ketoacidosis, with or without coma. Temporarily discontinued JANUMET in patients undergoing radiologic studies involving intravascular administration of iodinated contrast materials.

JANUMET should not be used in patients with type 1 diabetes or for the treatment of diabetic ketoacidosis.

Before initiating therapy with JANUMET and at least annually thereafter, assess for renal function and verify as normal. In patients for whom development of renal dysfunction is anticipated, assess renal function more frequently. Discontinue JANUMET if evidence of renal impairment is present. JANUMET should generally be avoided in patients with clinical or laboratory evidence of hepatic disease.As with other antihyperglycemic agents, when sitagliptin was used in combination with metformin, and a sulfonylurea or insulin, medications known to cause hypoglycemia, the incidence of sulfonylurea- or insulin-induced hypoglycemia was increased over that of placebo in combination with metformin, a sulfonylurea or insulin. To reduce the risk of sulfonylurea- or insulin- induced hypoglycemia, a lower dose of sulfonylurea or insulin may be considered.

There have been postmarketing reports of serious hypersensitivity reactions in patients treated with sitagliptin, one of the components of JANUMET including anaphylaxis, angioedema, and exfoliative skin conditions including Stevens-Johnson syndrome. Because these reactions are reported voluntarily from a population of uncertain size, it is generally not possible to reliably estimate their frequency or establish a causal relationship to drug exposure. Onset of these reactions occurred within the first 3 months after initiation of treatment with sitagliptin, with some reports occurring after the first dose. If a hypersensitivity reaction is suspected, discontinue JANUMET, assess for other potential causes for the event, and institute alternative treatment for diabetes. Promptly evaluate a patient who develops laboratory abnormalities or clinical illness for evidence of ketoacidosis or lactic acidosis. If acidosis occurs, discontinue JANUMET immediately and initiate appropriate corrective measures.

In clinical studies with sitagliptin and metformin as initial therapy and as add-on combination therapy with other agents, the most common adverse reactions reported, regardless of investigator assessment of causality, in ≥1% of patients and more commonly than in patients treated with placebo were diarrhea, nausea, dyspepsia, flatulence, vomiting, headache, hypoglycemia, abdominal pain, constipation, upper respiratory tract infection, cough, fungal skin infection and peripheral oedema. The most common (>5%) established adverse experiences due to initiation of metformin therapy are diarrhea, nausea/vomiting, abdominal pain, and loss of appetite.

T2-9, Jaya 33, No. 3 (Lot 33), Jalan Semangat, Seksyen 13, 46100 Petaling Jaya, Selangor, Malaysia. **T:** (603) 7718 1600 **F:** (603) 7718 1700 www.msd-malaysia.com

MSD

Principle Organizer

亞洲糖尿病基金會
Asia Diabetes Foundation

In partnership with

International Diabetes Federation
IDF Centre of Education 2011-2015

ASIA DIABETES FOUNDATION

Flat 4B, Block B, Staff Quarters
Prince of Wales Hospital
Shatin
New Territories
Hong Kong

(852) 2637 6624

www.adf.org.hk