

Singapore

Diabetes EDUCATORS

ASSOCIATION OF DIABETES EDUCATORS (SINGAPORE) JUL - DEC 2022 MICA (P) 142/08/2017

Message From ADES President

To address the challenges of an ageing population and improve population health outcomes, the MOH is developing a Healthier SG strategy to outline a major reform of the healthcare sector. The MOH announced that they will focus their efforts upstream on keeping individuals healthy, driving preventive health and early intervention, while continuing to provide appropriate care to those with existing needs.

Efforts to foster and enhance collaboration and coordination across Singapore on diabetes prevention and management is essential and crucial. This forthcoming redouble of effort from MOH to promote overall healthier living and preventive care will boost the ongoing work of War on Diabetes.

While waiting for MOH to release more details of Healthier SG, we will continue our ongoing effort in increasing diabetes symptoms awareness, encouraging health screening uptake, preventing and detecting diabetes early, improving diabetes self-care behaviours and reducing the risk of complications.

There is still much more to be done and with your support, we will continue to push on and fight diabetes as a nation.

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ADES Education Webinar: Eat Your Way to Good Health

By Noraini Othman, Certified Diabetes Educator

ADES is honoured to host an educational update on nutrition, by our local experts, Ms Gladys Wong Senior Principal Dietitian, Nutrition & Dietetics, from Khoo Teck Puat Hospital and Dr Kalpana Baskaran, Head, Centre of Applied Nutrition Services & the GI Research Unit, Temasek Polytechnic, President, Diabetes Singapore, titled: Nutrition Update for Diabetes Care and Enjoying food during special occasions respectively.

Nutrition Update for Diabetes Care

Ms Gladys Wong shared in her opening speech that Diabetes can be serious if poorly managed, it is common and costly to treat, yet it is controllable. She explained that facilitating behavior change and well being is key to improve health outcomes. Standards of Medical Care in Diabetes Goals of Care, 2022 states that: Meal plans should be individualized, as there is no one size that fits all. Patients, on the other hand, are not expected to be given a meal plan by the dietitian. On health literacy and numeracy, material design needs to be easy for easy understanding, especially on information on nutrition, yet purposeful. She further emphasized that there is a need to reduce unnecessary complexity when developing care plans for patients and promote accessibility. This can be observed in Admiralty Medical Centre (AdMC) recently, in view of Covid- 19 situation, due to social distancing and contact hygiene, the traditional form of patient education pamphlets are replaced with digital form and available via QR code for handouts via online and hotlines are made available to reach out to a dietitian.

On weight management, Ms Gladys advised to aim for 10% weight loss but gradually, from 5% to 7% and to 10%. For example, for a person weighing 100 kg, losing 7kg to 10kg gradually is preferred. She discussed on low carbohydrates eating plan, which equate to either increasing protein or fats to sustain adequate calories. However, not all Singaporeans can afford high protein diet like meat. On the other hand, ketogenic diet (higher fats) may not be sustainable in view of the more healthy fats used. In Singapore, healthy fats like olive oil and walnut oil can be expensive. She further advised that diet is not just about low caloric diet but to include nutrient dense foods such as vegetables, fruits, legumes, dairy and lean meat. Overall, it makes sense to adopt a balanced diet such as the Singapore My Healthy Plate concept.

How can Diabetes Nurse Educators help patients with diabetes in self-monitoring?

Do not suggest patients to take photographs of their meals simply because the size and portions are not accurate to the dietitians and therefore it is not helpful. On the other hand, handwritten food records with their descriptions and quantities are preferred. Studies showed that self-recording of their meals effectively increased the patients' self-consciousness and mindfulness of their diet even without seeing the dietitians.

Although as Asian, rice is our staple food consumption, we can choose the healthier wholegrain rice for its higher fibre content and to take smaller portions as discussed with the dietitian.

Helpful Information in Yishun Health Nutrition & Dietetics handouts:

- QR codes on handouts
- Internet : <https://www.ktph.cm.sg/services/clinical-support/nutrition-and-dietetics>
- Call A Dietitian hotline : 98322983
- Dedicated TV in waiting area

FOOD FOR THOUGHT

No clear evidence that supplements for weight loss are effective.

Intermittent fasting may work in sustaining weight loss.

Keto diets effect on weight loss may be short term.

Handwritten food records are more informative than photographs of food or meal.



<https://www.healthhub.sg/programmes/55/my-healthy-plate>

Enjoying Food During Special Occasion

Dr Kalpana shared many useful tips on sensible eating, especially at a buffet party or festive times. She emphasized that food is an integral part of our lives and has always been the center of many special occasions and events bringing happy memories. Many of us are affected when social gatherings are restricted during the current COVID-19 pandemic situation.

A study cited from Additive Human Behaviour and Physiology: Vol 3, page 198-211 (2017) revealed that people who eat with others are likely to feel happy and satisfied with their lives. However, there are challenges faced when eating during special occasions such as Culture: eg serving of halal food, Dietary requirements, eg gluten free; where food allergies need to be observed. Stigma: people with diabetes, hypertension is not comfortable to reveal their health conditions. Others include affordability, choice of location to eat, limitation of time and the company of people whom we choose to eat.

Dr Kalpana further illustrates that Eating Behaviour involves a myriad of complex influences such as menu; type of food, cuisine, economics, time. This also include Occasion: Circadian Rhythm, Environment, Atmosphere, Light, Temperature, Sound, Smell and People.

Whom we eat with matters, Mood/ Cognition: Happy, Sad, Anxious, Stress related experiences. She shared very interesting experiments that indicate human beings are wired to view favourably food high in fats and carbohydrates as compared to views of healthy food.

Interestingly, women do consume fewer calories with men at the same table (possibly with people they don't trust) as compared to when with women-only groups.

Dr Kalpana also addressed the myth of alcohol - does not contain carbohydrates, hence it did not increase sugar levels. The truth is alcohol contains simple sugars

which may spike sugar levels. On the other hand, alcohol was consumed with meals instead to reduce risk of hypoglycaemia.

Nonetheless, it's best to choose water which contains no calories. Her final message was: Downsize your Portion! Upsize your Health!

Some take away messages from Dr Kalpana's session:

TIPS TO AVOID OVEREATING AT A PARTY BUFFET

- Drink some water before eating
- Scout the buffet before choosing your food
- Pick a smaller plate which is lighter and kinder to your wrist
- Sit farther away from the buffet
- Choose a table not facing the buffet
- Drink less from glasses which are taller than wider glasses
- Eat at a well-lit and bright area to avoid overeating

FOOD FOR THOUGHT

- High carbohydrate + high fat diet is a bad combination leading to insulin resistance and at risk for DM
- Have no regrets and be happy if you can lose weight by eating less
- Downsize your Portion! Upsize your Health!
- Train your brain to say "NO"

TIPS TO AVOID OVEREATING WHILE VISITING DURING FESTIVE

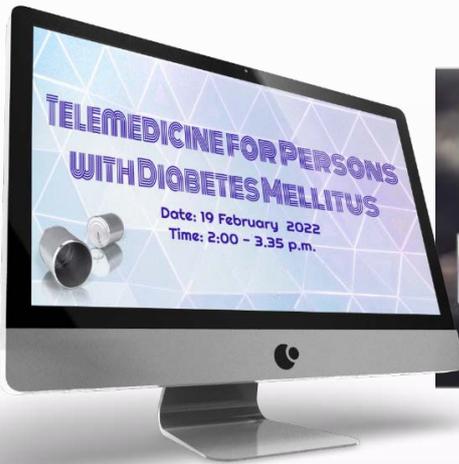
- Eat light before visiting
- Avoid everyday food
- Eat protein rich food to suppress appetite hormones

TIPS FOR THOSE WORKING NIGHT SHIFTS

- Get good quality sleep in the day in a darkened bedroom
- Eat healthy before starting night shift
- Hydrate! Hydrate! Hydrate during shift work
- Avoid caffeinated drinks to promote good sleep in the day

ADES Education Webinar: Telemedicine for Persons with Diabetes Mellitus

Chan Yoke Ling, Certified Diabetes Educator



Picture of SNC Eunice Liow at the webinar

If you say nothing good has emerged from COVID-19 pandemic, I beg to differ.

This was echoed at the recent ADES educational webinar on Telemedicine for persons with Diabetes Mellitus by the first speaker, Dr Darren Seah. He asked “Who led our digital transformation?” and the answer was... COVID.

COVID has led our digital transformation. Digital transformation came useful in many aspects of our lives during this COVID pandemic. For example, advances with the use of Trace Together app for contact tracing, face to face meetings were converted from a physical location to virtual ZOOM, Webex or Microsoft Teams meetings and many others. Not to mention, teleconsultation initiatives that required proof of concept before the COVID era was sped up and led to many institutions now offering teleconsultations as an alternative mode of delivering care to stable chronic disease patients for care continuity and to reduce the risk of transmissions. With the new mode of care delivery comes some risks and implications.

Dr Darren gave a very comprehensive summary of the MOH National Telemedicine Guidelines for Singapore 2015, SMC ECEG 2016 Telemedicine and the ADA 2022 Standards for Digital Health recommendations for healthcare professionals who attended the webinar. Dr Darren also shared on some of the red flags such as visual disturbance, chest pain, SOB persistent pain with fever, diarrhea with black stool and etcetera that require a termination of teleconsultation. These patient are required to be reviewed in a face to face consultation by the doctor. He concluded that Apps, telemedicine, online consulting, remote monitoring with asynchronous advice are here to stay, we have to embrace them and adopt risk management approach to provide a safe and effective healthcare environment for telemedicine. Next, Dr Jeremy Koh shared on a research entitled; Clinical effectiveness of telephone consultation compared with face to face consultation among patients with sub-optimally

controlled type 2 diabetes-a cohort study. This study compared the glycemic control among telephone vs face to face consultation for patients with hba1c 7% and above, aged between 21 to 80 years old. A total of 644 patients were included in the study, 322 were in the telephone and 322 were in the face to face consultation group. The findings concluded that telephone consultations are non-inferior to face to face consultation for diabetes management in the short term among those with HbA1c 7.0% and above. It was concluded that telephone consultations may be used as an alternative mode of consultation in the short term and it was recommended that future studies could also assess the other aspects of telemedicine such as video consultations, patient – physician satisfaction, longer term outcomes and the suitability for other chronic conditions.

Lastly, SNC Eunice Liow, a veteran DNE who is conducting video consultation in SGH shared her experiences on video consultation service that was started in SGH. Video consultation via ZOOM platform for persons with diabetes in SGH was pioneered by DNE in collaboration with the Department of Innovation and Technology with the support from Department of Nursing Administration and Department of Endocrinology. A sample toolkit that was developed was shared during the presentation. SNC Eunice gave a summarised practical aspects of setting up a video consultation service, maintaining and ensuring a successful teleconsultation service. Patient feedbacks that were obtained for the video consultation services were also presented and it was encouraged that teleconsultation be adopted by more people.

Moving on with the digital transformation era, telemedicine which includes video consultation and telephonic consultation are the examples of changes that will be a permanent mode of service provision in this post COVID era. Embracing and leveraging on these changes within the scope of practice and risk mitigated approach is the way moving forward.

INTERNATIONAL DIABETES FEDERATION VIRTUAL CONGRESS 2021

The International Diabetes Federation (IDF)'s first virtual congress was held from the 6 – 10 December 2021 (Central European Time). Most of the sessions were made available on demand for 1 full month from the end of the Congress. A few of the ADES Committee Members were given the learning opportunities to attend the Congress and are glad to share some of the highlights.

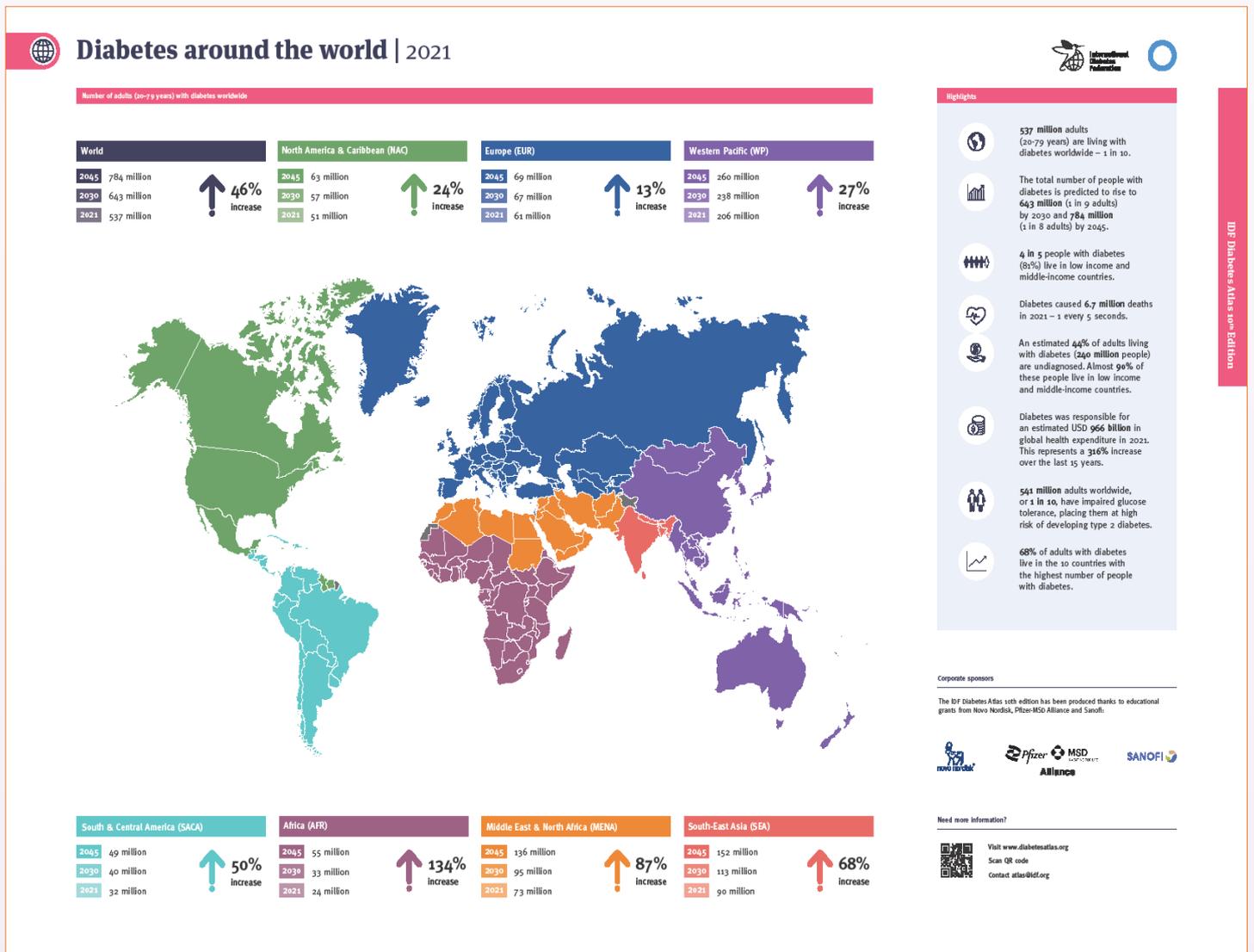
Highlighting Main Findings from IDF Diabetes Atlas 10th Edition

Violet Choo, Certified Diabetes Educator

The IDF Diabetes Atlas 10th edition was published on the World Diabetes Day 2021. Its main findings were presented at the IDF Virtual Congress 2021.

The IDF Diabetes Atlas 10th edition provides detailed information on the estimated and projected prevalence of diabetes, globally, by region, country and territory. Information on impaired fasting glucose was added for the first time; as well as adult-onset type 1 diabetes and childhood-onset type 2 diabetes. Emerging topic of Diabetes and COVID-19 were included.

The Atlas Chair, Professor Dianna Magliano, presented some of the highlights. Findings of the current 10th edition Diabetes Atlas had confirmed that diabetes is one of the fastest-growing global health emergencies of 21st century. In 2021, it is estimated that 537 million people (1 in 10 adults) who are aged between 20-79 years are living with diabetes worldwide and this number is predicted to reach 643 million (1 in 9 adults) by 2030, and 783 million (1 in 8 adults) by 2045.



Resource from IDF. IDF Diabetes Atlas 10th Edition Global Fact Sheet – Diabetes around the world.

81% of people with diabetes live in low-income and middle-income countries. An estimated 44% of adult living with diabetes are undiagnosed. The majority of these people are coming from low-income and middle-income countries. In addition, 541 million people worldwide or 1 in 10 adults are estimated to have impaired glucose tolerance, increasing the risk of developing type 2 diabetes for this group of people. It is also estimated that over 6.7 million people aged 20-79 will die from diabetes-related causes. Direct health expenditure due to diabetes is close to one trillion USD in 2021 and will exceed this figure by 2030.

The IDF Diabetes Atlas 10th edition draws attention to the growing impact of diabetes across the world and highlighted the need to improve the ability to diagnose people with diabetes; provide appropriate and timely care for all people with diabetes; prevent or delay diabetes complications and improve quality of life.

*Cover page of the IDF Diabetes Atlas 10th edition.
The resource could be downloaded from the IDF website.*



DIABETES AND THE HEART

Chua Chin Lian, Certified Diabetes Educator

Of the many webinars in the IDF conference 2021 that I attended, those covering the topics on heart failure and diabetes in particular have caught my attention. People with diabetes have 2 to 4 times higher risk of developing heart failure compared to those without. Furthermore, people with diabetes and heart failure have a more than 50 percent greater cardiovascular mortality rate than those with only heart failure.

In view of this, we realised that cardiac protection should be a priority for persons with diabetes before they exhibit any cardiac-related signs and symptoms. Over the course of my diabetes work as an APN at the Specialist Centre, many new diabetes patients are put on sodium glucose co-transport 2 (SGLT2) inhibitor if they are not already on it and have no contraindications. Besides helping to keep diabetes in check, the SGLT2 inhibitor can provide kidney protection as well as potentially protecting the patient from heart failure.

Many recent clinical trials have shown that SGLT2 inhibitor reduces risk of major adverse cardiovascular events. During one of the webinars in the IDF conference, Dr. Soren Lund Kristensen showcased the 'five pillars of heart failure therapy', namely the Angiotensin Converting Enzyme (ACE) inhibitor / Angiotensin II Receptor blocker (ARB), Nephilysin inhibitor, Beta blocker, Mineralocorticoid

Receptor Antagonists (MRA) and the latest added fifth pillar – SGLT2 inhibitor, as a standard treatment for heart failure.

I have encountered a handful of diabetes patients with heart failure, ranging from those with preserved left ventricular ejection fraction (LVEF) to those with reduced LVEF who are on the 5 pillars of treatment. Coupled with lifestyle modifications – regular exercise, maintaining a healthy weight, healthy diet and no smoking, as well as controlling their medical conditions such as diabetes, hypertension and hyperlipidemia, the incidence of hospitalization due to heart failure related issues was reduced. Due to the complexity of patients medical conditions and medications, close collaboration and shared-care between the diabetes and heart failure specialist teams is still warranted.

“From the IDF Virtual Congress, I learnt that SGLT2 not only could be used in persons with diabetes but also in persons without diabetes; to prevent or treat heart failure and renal progression.” – Ms Agnes Ngoh

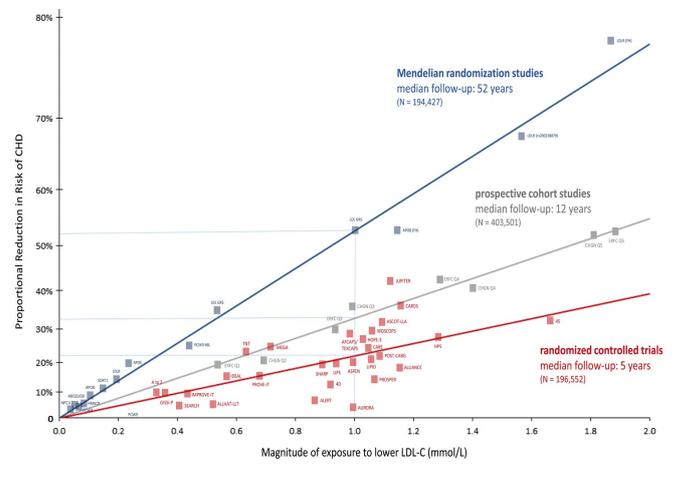
STATIN AND DIABETES

Winnie Poh, Certified Diabetes Educator

Hyperlipidaemia is a common chronic condition seen at the primary care setting. Evidence suggests that Low Density Lipoprotein Cholesterol (LDL-C) is causal of atherosclerosis and reducing LDL-C reduces cardiovascular events. The higher the cardiovascular risk, the larger the benefits with any reduction of LDL-C.

There was similar proportional reduction in risks of major vascular events per mmol/L LDL-C reduction in randomized trials of statin therapy among people with different presenting characteristics (i.e. Type 1 Diabetes Mellitus, Type 2 Diabetes Mellitus and person with no Diabetes Mellitus). The benefit the patient gets is independent with the way the LDL-C is reduced. Meaning, what matters is there is reduction of LDL-C.

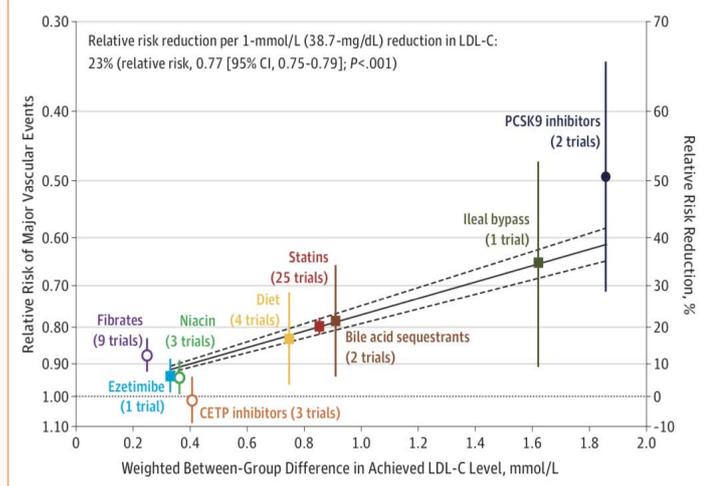
Effect of LDL-C by Magnitude and Duration of Exposure



Effect of LDL-C by Magnitude and Duration of Exposure. Retrieved from *European Heart Journal* 2017. 38, 3459-2472. Doi:10.1093/eurheartj/ehx144

The updated 2019 European Society of Cardiology (ESC)/ European Atherosclerosis (EAS) Guidelines for the management of dyslipidaemia strongly encourages lipid-lowering therapy and lower LDL-C treatment goals at all levels of atherosclerotic cardiovascular disease (ASCVD) risk. Patients with Diabetes Mellitus are classified as high or very high risk of ASCVD based on clinical features alone, regardless of calculated 10-year risk of ASCVD. The intensity of LDL-C lowering should be based on risk and to set a very intensive goal for the Very High Risk. Dr. Catatpano added that LDL-C lower is better; lowering LDL-C with statin, ezetimibe or PCSk9-inhibitors is safe and effective to 1.4mmol/L.

Meta-analysis of Various Methods to Lower LDL-C

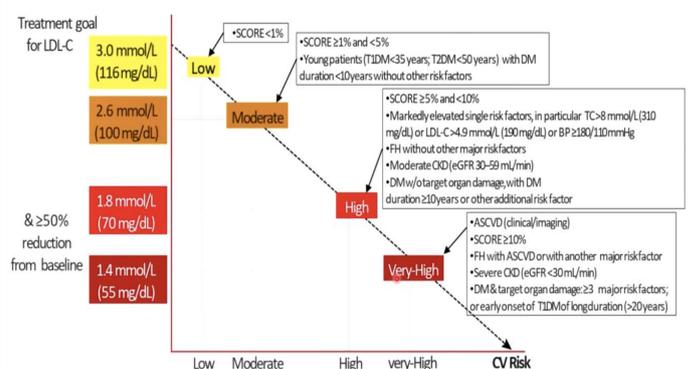


Meta-analysis of Various Methods to Lower LDL-C showing reducing LDL-C reduces Relative Risk of Major Vascular Events. Reference: *JAMA* 2016; 316 (12): 1289-1297. doi:10.1001/jama.2016.13985

At the IDF Congress, Dr. Alberico Luigi Catatpano also shared that the benefit of LDL-C reduction is not coming at once. It applied to every population studied with statin. In the first year, the therapy produced a minimum benefit, roughly 1/2 of what you can achieve on the following year.

There is no clear-cut explanation why this is occurring but certainly, to warn care provider not to start the therapy and suspend it too early. We need to go on continuously to achieve a benefit. As nurse educators, we could advise and review statin adherence, to help patients attain the cardiovascular benefit from the statin.

Treatment Goals for LDL-C Across Categories of Total Cardiovascular Disease Risk



Treatment Goals for LDL-C Across Categories of Total Cardiovascular Risk. Retrieved from 2019 ESC/EAS Guidelines for the management of dyslipidaemias: Lipid modification to reduce cardiovascular risk. *European Heart Journal*. 41. 10.1093/eurheartj/ehz455.



ADES SPECIAL INTEREST GROUP: FASTING SAFELY IN RAMADAN

In this series, we would like to introduce the Ramadan diabetes education program run by our ADES member in Singapore. Fasting is passionately observed by Muslims and in Singapore, it is of no exception for our Muslim patients locally.

Despite the potential complications, many of our diabetes patients continue to fast. Hence, as Diabetes Nurse Educators, we need to provide the necessary support so that they can practise the faith safely.

National University Hospital (NUH) Ramadan Diabetes Education

Nursyafiqah Abdul Yazid, Certified Diabetes Educator

In NUH, a high risk clinic was conducted one month before Ramadan. All patients who expressed their intention to fast for Ramadan were assessed using the IDF DAR (International Diabetes Federation, Diabetes Alliance Ramadan) risk score. For low & moderate risk, patients received basic Ramadan counselling by DNE. For high risk patients, they received extensive counselling by specialist DNE and are referred to Dietitians. This is followed by tele-monitoring during Ramadan and follow up with post Ramadan counselling either via tele or face to face.

Diabetes education covered in high risk group include:

- Explanation of risk score
- History taking of Ramadan habits (including diet and physical activity during Ramadan)
- Blood glucose monitoring
- Fluids and dietary advice (Dietitian will cover more in depth)
- Physical activity and exercise advice
- Medication adjustment and test fasting (DNE will adjust medication based on patient Ramadan habits and will discuss with physician PRN)
- When to break the fast
- Recognition of hypoglycaemia and hyperglycaemia symptoms

Tan Tock Seng Hospital (TTSH)

Noorani Othman, Certified Diabetes Educator

TTSH organized a public forum via zoom conducted in English and Malay titled “Safe Ramadan Fasting by People with Diabetes”. This session was carefully curated for Muslim patients with diabetes and caregivers. Speakers include Dr Abdul Shakoor, Senior Consultant, sharing on Medical Advice on Fasting, Ms Noorani Othman, Diabetes Nurse Clinician, discussed on Tips on safe fasting, Ms Rachel Tan, Dietician with Ms Theresa Kwek, Nutritionist did a virtual cooking demonstration on healthy recipes of Malay favourite dish “Ayam masak merah” and lastly, Ms Nur Faezah Sani, Podiatrist, shared a segment on healthy feet and happy feet.

Sengkang General Hospital (SKH)

Aslena Hussain, Certified Diabetes Educator

SKH organized a Diabetes Management public forum via zoom conducted in English and Malay “Let’s Talk about Ramadan”. In this session, Dr Sueziani Zainuddin, Senior Consultant Endocrinology, Singapore lead principle investigator for Ramadan Research project shared on “Can you fast?” alongside with Senior Staff Nurse Kalimallah Khairil Anwar, Dietician Ms Carmen Wong, Ms Nurul Syafiqah Mohamed Idris, Physiotherapist, Ms Nadiyah Mohd Salihin, Medical Social Worker and Dr Farah Idu Jion, Senior Psychologist.

Singapore General Hospital (SGH) and ADES participated in 10th DAR (Diabetes & Ramadan International Alliance) Conference. In this international conference, Aslena Hussain, certified diabetes educator presented on Role of a Nurse in Hospital, Primary Care and Community Settings.

For those who had missed this conference, IDF DAR had started a new YouTube channel in which all the sessions for the 10th DAR alliance conference of 2022 are available for future reference. The channel can be accessed here <https://www.youtube.com/channel/UCbYy-CdgaPNDyW0bJuvogvA>

Happy Learning and Viewing.