# On Target Oct' 2022

#### Aotearoa College of Diabetes Nurses Committee

Chair	Bobbie Milne	Counties Manukau	bobbie.milne@middlemore.co.nz
Secretary	Vicki McKay	Manawatu	acdn.secretary@gmail.com
Treasurer	Nana Tweneboah- Mensah	Auckland	acdn.treasurer@gmail.com
Accreditation Coordinator	Amanda de Hoop	Manawatu	amanda.dehoop@midcentraldhb.govt.nz
Membership	Sue Talbot	Timaru	acdn.membership@gmail.com
Website	Belinda Gordge	Christchurch	
Committee members	Solita Rose Jo Duncan		
Newsletter Coordinator	Vacant	This could be you?	

#### Newsletter Coordinator -

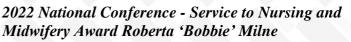
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This award recipient is someone who has been committed and dedicated to improving the health outcomes for her patient population.

In her 42 years of full-time nursing, this person has devoted 31 years to reducing long term complications, and diabetes nursing on both a local and national level.

This person bought her passion and nursing talents to Whanganui after completing her nursing training in Brighton, England. In 1978 her first nursing role was on a surgical ward where limb amputations of patients with diabetes and peripheral vascular disease were commonplace. This sparked a lifelong passion for prevention of diabetes-related amputations.

She has educated, nurtured and mentored many diabetes nurses over the years.

Unfortunately, Bobbie was unable to be relieved from work to attend the award ceremony to collect her award. ACDN committee will present it to Bobbie at the next hui.

#### NZSSD Webinar

Renal update by Fakaola Otuafi (Ola) a nurse practitioner working for Te Whatu Ora Counties Manukau – August 2022. Written by R Milne, NP, Te Whatu Ora Counties Manukau

Ola gave a very good presentation on renal disease. The definition of renal disease (CKD) uses glomerular filtration rate of < 60 mL/min/1.73m2 for 3 months with or without evidence of kidney damage or evidence of kidney damage with or without decreased GFR for  $\geq$ 3 months with albuminuria, haematuria after exclusion of urological causes, pathological abnormalities or anatomical abnormalities.

To remember the 7 kidney functions she used **A WET BED** – Acid based balance, electrolytes, toxin, blood pressure control, erythropoietin making, D vitamin metabolism.

Risk factors for CKD – diabetes, hypertension, age > 60, smoking, obesity BMI > 30, black, Hispanic, Maori, Pacific or South Asian ethnicity, family history of CKD, auto immune disorders, Male, long term use of NSAIDS, albuminuria or proteinuria, established CVD. Of course the numbers of people with renal disease is growing – 4658 are treated for kidney failure in NZ. Diabetes causes 74% of kidney failure. Costs are high with haemodialysis (HD) \$64,318 per annum, community HD \$48,172 per annum and home peritoneal dialysis (PD) \$36,614 per annum. Transplant costs  $1^{st}$  year \$65,981,  $2^{nd}$  year \$9,052 and  $3^{rd}$  year \$8,703 per annum.

Goals of CKD management – investigate treatable disease, reduce progression of CKD, reduce CVD risk, require early detection and management of complications, avoidance of nephrotoxic medications or volume depletion and have appropriate referrals to nephrologist when indicated.

Clinical targets for CKD management are BP < 130/80 for those with diabetes and CKD, BP < 140/90 for non diabetic patients. Treatment first line is ACEi/ARB – not in combination for antiproteinuric effect to reduce micro and macro complications. Targets for diabetes control HbA1c < 53 to reduce risk of progression. Most patients are on sulphonylureas +/- insulin. Metformin is usually reduced and then stopped as they approach eGFR < 30. Need to be

aware of diabetes medication as patients approach CKD 4 and 5 as there is an increased risk of hypoglycaemia. NB please note the use of sulphonylureas in CKD is in the renal guidelines, however it is likely that the patient who have long duration of diabetes will have had this class of agent discontinued due to its infectiveness so this controversial.

Every 2<sup>nd</sup> patient you see with type 2 diabetes is likely to have CKD. A patient with diabetes has CKD if they have 1 or more of – persistent microalbuminuria or proteinuria, an eGFr < 60/mL/min/1.73 =/or haematuria after exclusion of urological cause or structural abnormalities. Targets for treatment – total cholesterol < 4, LDL < 2, HDL > 1, triglycerides < 1.7. Treatment is statin or exetimibe. Be on aspirin. Clinical targets for CKD management – lifestyle, smoking cessation, reduce weight, low sodium diet (< 100 - 200 mmol/day), be physically active and have moderate alcohol consumption. To reduce CVD risk. Screen for CKD in those with diabetes, elevated BP, CVD, Obese, smoke, Age > 60, who are Maori, Pacific, South Asian and have urinary tract disease.

Test serum creatinine, for proteinuria, ACR, if ACR is positive repeat twice over 3 months. If eGFR < 60 repeat in 7 days. Repeat test every 1 - 2 years if CKD no present. If diabetes or CKD every year. Suggestion is to refer for progressive CKD or patients with diabetes and eGFr < 45. eGFR <30 stage 4 or 5 CKD of any cause, persistent significant albuminuria. **NB this will be dependent on your own area and their referral criteria.** A sustained reduction in eGFR of > 25% in 12 months or sustained reduction in eGFR of 15ml/min per year. Or CKD and hypertension that is hard to get to target despite 3 – 4 antihypertensive agents.

CKD 5 or ESRF – pre dialysis team eGFR < 20 mil/min – co-ordinate the pre dialysis process – patients are able to make informed choice about the modality of dialysis. Aim to maximise well being before dialysis. Ensure patient has appropriate access in and working in timely fashion so patients and family are supported emotionally, physically and mentally. Treatment options are – peritoneal dialysis – CAPD or PD, Haemodialysis – home/in centre/community house, transplant or conservative management. There are barriers to treatment such as avoidance, denial of the need for dialysis, patients feel well and not 'sick', people are reluctant to make the decision on modality as this will mean that the treatment starts earlier and fear – I know someone who "got infection" "died".

There are 3 transplant centres nationally and 10% will be likely to receive a transplant 3 - 4 year wait, most are on dialysis first but those with antibodies 0 and B types may wait longer.

Conservative management – not for renal replacement – elderly, have significant comorbidities, poor functional status, malnutrition, reside in rest home – 25% alive at 12 months, 15% retain functional status and this is underpinned by specific renal supportive care program. Provide symptomatic management, have palliative pathway, Hospice, Advanced care planning, GP care with MDT approach.

Medications that adversely affect kidney function in CKD – NSAIDS, cox-2 inhibitor, lithium, aminoglycosides. **NB Those undergoing radiological tests with contrast medium - you will have to discuss with the team looking after the patient as it is thought the issue in the past was overstated.** Renal impairment reduces the clearance of some medications, increases the ½ life and drug accumulations, some clearance by dialysis, increases availability, altered volume distribution. Some medications are highly protein bound medications eg fursomide, gliclazide, chlorthiadione.

#### Prescriber Study Days 16/17 August Wellington

By Pip Cresswell Diabetes CNS Kaiarahi Nahi Matehuka Endocrine, Diabetes & Research, Capital, Coast and Hutt Valley

**There were lots of great presentations. The best one was Suze's Samoans** – the story of a white UK nurse learning to work with Pacifica patients in Marlborough.

**Paul Drury** gave an update on diabetes in NZ. 293,000 or 4% population have diabetes Check rates in your region at <u>https://minhealthnz.shinyapps.io/virtual-diabetes-register-web-tool/.</u> T1DM rate not increasing according to the register even though it feels like it.

People are getting diabetes younger - diagnoses aged 15-19 increased by 20% in last 11 years. Also a big increase in diagnoses aged between 20 and 45 years. In the same period prevalence increased massively in Maori, Pacifica and especially in our Indian population. Whanganui had biggest increase in diagnoses in that period 24%. The European or other population had the lowest estimated rate of diabetes

People living in deprived areas have 2.5 times higher rates of developing diabetes than least deprived. In 2021, the Pacific population had the highest estimated rate of diabetes at 118.8 per 1000 Pacific population, followed by the Indian population at 101.3 per 1000 Indian population and the Māori population at 70.1 per 1000 Māori population.

at 30.1 per 1000 European or other population.

#### Ryan Paul, Waikato - diabetes therapeutics in NZ - one year on

Please advocate to get NZSSD T2DM management guidelines onto health pathways in your area if not already there. 1/3 of T2DM patients would meet criteria for Empagliflozin or Dulaglutide. Only 45-60 % of those eligible were put on either agent across the PHOs in Waikato so they significantly under prescribed. Is that the same in your area? Same under prescription levels as metformin, ACE-Is, ARBs or statins. No change in HbA1c in Waikato since the agents came in.

Please advocate to get NZSSD T2DM management guidelines onto health pathways in your area if not already there.

Special authority criteria is working in increasing access. Is it increasing harm? Feb-Oct last year 40,000 patients prescribed Empagliflozin - 167 admissions for DKA – more common in Europeans, more common in younger people. Real world data is similar to the trial data so we can be cautiously reassured about using. Evidence of secondary prevention of CV events by both SGLT2is and GLP-1s has strengthened but no evidence of primary prevention so far. SGLT2 are now one of the 4 pillars of treatment of heart failure. Genitourinary effects of Empagliflozin often prevented by improving BGLs first by prescribing insulin, then adding Empagliflozin and then reducing and stopping insulin if you can. Hygiene advice important. If on less than 40 units of insulin per day may be able to get off it with SGLT2 or GLP1.

If HbA1c drops below target or goes up, keep Empagliflozin going for CVS benefits. Once a week Fluconazole tablet works really well preventing fungal infections. Benefits are additional to Metformin, Statin, ACE – maximise these and lifestyle.

Now evidence that Dulaglutide effective in 10-17 year old patients. Anti-emetics or anti-diarrhoeal agents work well for side effects. Other countries have other doses of GLP-1 RAs. Ryan sometimes prescribes another 1.5 mg injection per week when he sees it is wearing off and it is funded.

Internationally HbA1c 48 mmol/mol is cut off for diabetes diagnosis, this will change in NZ. Ryan said make sure pre pregnancy counselling includes men with diabetes – they have lower sperm counts and motility so need to optimise their HbA1c.

#### Distance Consultations (phone, video) – Dr Bryan Betty

Have potential to reduce regional inequities. Much better with already established relationship. Men are less satisfied distance consults than women. More highly educated people prefer face to face appointments. Disabled people usually prefer distance ones.

#### Jeremy Krebs - EASD/ADA T1DM consensus paper 2021

40% of people with T1DM age over 30 are initially managed as T2DM. Don't measure c-peptide fasting and do get a glucose measured at the same time. Use approaches/treatment and devices that minimize

Psychological support should be normal standard of care.

Diabetes causes distress in 20-40% of people with diabetes. People are most vulnerable at diagnosis and when they develop complications. Anxiety and depression are twice as common in T1DM – screen for it.

#### psychosocial burden.

**Manage CVS risk factors** – not much data but use BP 130/80. Paul Drury commented that length of time you have had diabetes is very significant. As the commonest cause of death in T1DM is CVD, 10 years of diabetes would be enough risk for him to start statin. Otherwise T1DM would be only group in world who don't benefit from statin.

**Prepare** patients for hypoglycaemia. Discuss pump all the time as gets more time in range. They can go back and forth.

**Monitoring** for other autoimmune conditions – test at least once and as indicated clinically. No agreed frequency – with kids and young people it's annually.

**Self-management education** – at diagnosis, annually or when not meeting targets, when complications develop and transitions in life and care – <u>UK bertie website</u> is good. Frequency of testing is associated with glycaemic control.

Post-prandial to accuracy of CHO counting and dosing. Safety testing – before driving, using machinery, before bed. Severe hypo seen in 12% in adults with T1DM over 6 months in global observational study. Hypo unawareness seen in >25% T1DM. Weight based hypo treatment is in NICE guidelines but not EASD/ADA.

May need less if on insulin suspend in pumps. Nutrition therapy reduces HbA1c 11-21 mmol/mol. Reduced CHO ok if overall nutrition considered. CHO counting normal standard of care. May also need insulin for protein and fat.

Metformin trial data in T1DM underwhelming, SGLT2 is approved in EU not US.

#### Shelley Rose - Medical Nutrition Therapy in Diabetes Care

Evidence based approach to treating certain medical conditions.

#### Who should be referred? - see <u>NZSSD guideline</u> - everyone with diabetes and prediabetes!

Individually tailored nutrition plans - no one size fits all for people with diabetes

T2DM – at diagnosis, annually, and
a) when starting premixed insulin for carbohydrate awareness
b) bolus insulin, basic carb counting
c) if HbA1c has not reduced to target with mixed or bolus insulin
Heart foundation – good resources as do Diabetes NZ and NZSSD website. Only limit food choices when

indicated by scientific evidence

DIRECT trial - 2 year follow up - very low energy diets - significant remission of diabetes

Very low carb diet (ketogenic) less than 50g carbs day high fat, adequate protein and low carb diet – nutritional ketosis – costs \$8 more per day (NZ research). If restricting carb to less than 130g day -need for carb quality. People struggle to meet the low carbs – think eating 30g but actually eating 90g

#### T1DM

#### 4 eating patterns associated with better HbA1c:

- 1. Regular eating pattern
- 2. Adjusting food and/or insulin in response to BGLs
- 3. Adjusting insulin dose for meal size and content
- 4. Not over treating hypos or consuming extra snacks

#### Steps to advanced carb counting:

- Healthy eating
- Plate model
- Carb awareness
- Carb quantification
- Insulin to carb ratios

15g carb exchange or servings is another alternative.

Bolus 15-20 mins before meal or addition of moderate amount of protein to meal containing mostly CHO can decrease post prandial BGs. Carb counting from diagnosis – everyone will be doing it soon. Recommends exercise management in T1DM consensus in lancet 2017

Disordered eating and eating disorders in kids, adolescents and adults with T1DM – fantastic resource 2022 from <u>Queensland diabetes clinical network</u>.

#### What are the roles of the Health Improvement Practitioner and the Health Coach? By Sue Talbot

**A Health Improvement Practitioner (HIP)** work with primary care teams to support anyone of any age. Their support includes talking therapy, helping people to reconnect with their values and to commit to actions that align with their health and wellbeing goals. They are either registered under the Health Practitioners Competency Assurance Act, Social Work Registration Authority or DAPAANZ. They also

People living with diabetes face a range of challenges incorporating diabetes into their daily living. HIPs can help them work through these challenges and identify and set achievable goals.

undertake additional training for the role of HIP.

The HIP role includes supporting people with any problem, with diabetes only be one of them. As we all know, diabetes self-management is affected not only by diet, exercise and medication, but also life challenges and other health conditions. This includes stress, anxiety, depression, substance abuse, socio-emotional challenges, and persistent pain, of which the HIPs can support them to find balance in their life and support them to achieve well-being goals. Sessions are free commonly last 20-30 minutes. They can accommodate same day appointments or planned appointments.

An example of having a HIP working as part of a busy primary care team is when a person with poorly controlled diabetes disclosed self-harm due to family discord. The patient agreed to see the HIP who was able to support her and collaborate with the patient and local TACT team to set a plan of care for her. They can also help support people struggling to make the emotional adjustment to a diagnosis of diabetes. It is well documented that depression is common in people with diabetes. The HIP can help support people in this situation. Working as part of the primary care team, they can help to explore emotional triggers and help the person to develop strategies to support well-being.

**A Health Coach (HC)** also works with primary care teams to support anyone of any age with health and lifestyle support. They have same day appointments on referral from the primary care team and also can

have prebooked appointments. Their role can be to help people to understand their health issue better, help with self-management of health including lifestyle change. They can work with the person to develop action plans to support them to achieve their individual goals and link them with other services that may also provide support. Support they can provide is varied, from helping with healthy food choices including going to the supermarket with them to taking someone to a shop to find aids that would support their independent living and safety. They can also support people to attend Group activities to support their wellbeing. HCs come from a variety of backgrounds and undertake training for the role. Training covers areas such as working in partnership with diverse populations to help improve their physical and mental wellbeing. Their training also covers how to work in partnership with other health professionals, other services available to their clients and how to connect them with these services, and their own self-care. Both the HIP and HC are currently funded by Manatū Hauora Ministry of Health. For a Primary Care team to be able to have either as part of their team, they must have a consult room to see the person individually.

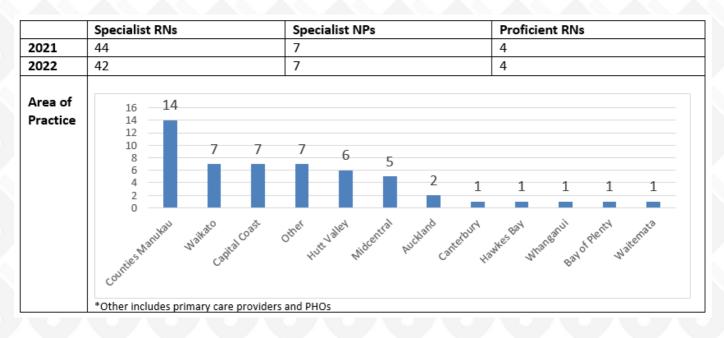
#### Accreditation News

We currently have 50 accredited nurses - 40 Specialist RNs, 8 Specialist NPs, and 2 Proficient RNs. The October 2022 round is in progress; an update with names of successful applicants will be published in the next newsletter.

The next accreditation round opens on 27 January 2023 and closes at midday on 3 March 2023. Those of you due to submit a maintenance application should have received an email reminding you of this. All required documents are available on the ACDN website and should be used over previously saved old application forms: <u>ACDN Accreditation</u>

#### Accreditation across the motu

Within the May 2022 AGM accreditation report, the areas (former DHBs) without accredited nurses were noted: Northland, Lakes, Tairawhiti, Taranaki, Wairarapa, Nelson Malborough, West Coast, South Canterbury, & Southern. If you are from one of these areas and are keen to pursue accreditation, please get in touch for support or further information.



#### **Funding Support**

ACDN has a grants fund that may be used to help cover some of the costs of accreditation or for assessor training. Details of the fund and how to apply are on the ACDN website.

#### **Expressions of Interest for Assessors**

The College is seeking to grow the pool of approved assessors to assist with assessing accreditation portfolios.

The College would like to hear from anyone with the following skills:

- accredited as either a Proficient or Specialist Diabetes Nurse
- an approved PDRP assessor, or
- have completed the NZQA assessment module 4098 or other approved assessment programme, or willing to undertake relevant training (funding support available), and
- interested and willing to be an assessor.

Assessment of portfolios occurs twice a year. The time it takes to complete an assessment varies but in general you should allow two hours. Assessors are paid an honorarium of \$50 for each portfolio assessed.

This is an ideal opportunity to develop new skills that contribute to your own professional development, to network nationally with other members of the College, and to contribute to the professional development of your colleagues.

Expressions of interest can be directed at any time to Amanda de Hoop, Coordinator for the Accreditation Programme, by email – <u>amanda.dehoop@midcentraldhb.govt.nz</u>

Amanda de Hoop Coordinator - ACDN (NZNO) Accreditation Programme Email: <u>amanda.dehoop@midcentraldhb.govt.nz</u>

#### Articles from Ministry of Health Library

#### Cardiovascular Disease and Diabetes (International) Improving type 2 diabetes care and self-management at the individual level by incorporating social determinants of health

Suboptimal social determinants of health impede type 2 diabetes selfmanagement. They are usually considered at population and community levels, not individually. The objective of this study, published in the *Australian and New Zealand Journal of Public Health*, was to draw on perspectives of people who have type 2 diabetes to identify and explore the impact of social determinants on self-management and ways to incorporate them into individual care.

Cardiovascular Disease and Diabetes (New Zealand) The needs and experiences of women with gestational diabetes mellitus from minority ethnic backgrounds in high-income nations: A systematic integrative review

#### Rerenga kōrero/Phrases Te reo/ vocabulary about diabetes (originally from Kaitiaki)

Huka - sugar Mate huka - diabetes Taiaki huka - insulin Repe taiaki huka - pancreas Te huka toto iti - hypoglycaemia Te huka toto teitei - hyperglycaemia Pēhanga toto - blood pressure Ngenge/katete – overweight Whiringa kai – diet Hei mahi - excercise

Gestational diabetes mellitus (GDM) represents a growing challenge worldwide, with significant risks to both the

mother and baby that extend beyond the duration of the pregnancy and immediate post-partum period. Women from ethnic minority groups who access GDM care in high-income settings face particular challenges. The aim of this systematic integrative review, published in *Women and Birth*, is to explore the experiences and needs of women with GDM from select ethnic groups in high-income healthcare settings.

Illness perceptions and diabetes self-care behaviours in Māori and New Zealand Europeans with type 2 diabetes mellitus: a cross-sectional study

This study, published in *The New Zealand Medical Journal*, investigated differences in illness perceptions and selfcare behaviours between Māori and New Zealand (NZ) Europeans with type 2 diabetes mellitus (T2DM), and how these perceptions were related to clinical outcomes.

Patient, carer and health worker perspectives of stroke care in New Zealand: a mixed methods survey

It is important to understand how consumers (person with stroke/family member/carer) and health workers perceive stroke care services. In this study, published in *Disability and Rehabilitation*, consumers and health workers from across New Zealand were surveyed on perceptions of stroke care, access barriers, and views on service centralisation. Tighter or less tight glycaemic targets for women with gestational diabetes mellitus for reducing maternal and perinatal morbidity: A stepped-wedge, cluster-randomised trial

Treatment for gestational diabetes mellitus (GDM) aims to reduce maternal hyperglycaemia. The TARGET Trial, published in *PLOS Medicine*, assessed whether tighter compared with less tight glycaemic control reduced maternal and perinatal morbidity.

#### Tools for your self-care kete

RESIST PERFECTION DON'T TRY TO CONTROL THE UNCONTROLLABLE LOOK FOR HUMOUR IN THE SITUATION FLIP YOUR NEGATIVE THINKING DECLUTTER YOUR ENVIRONMENT

Strategies based on the book SOOTHE (2015)

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