DECEMBER 2022

On Target

Quarterly Newsletter

Aotearoa College of Diabetes Nurses
NZNO

IN THIS ISSUE

ACDN COMMITTEE UPDATE

We will have two members stepping off the committee at our next AGM. Bobbie Milne NP, our current Chair and Sue Talbot, NP and membership coordinator.

We are looking for expressions of interest for new committee members here.

We would also welcome any write ups, tips and tricks or reports for the March edition of On Target Newsletter If you are involved with or come across anything relevant to college members – please email Solita with any contributions.

Current committee:

○ Chair	Bobbie Milne, Counties Manukau	Email
○ Secretary	Vicki McKay, Manawatū	Email
○ Treasurer	Nana Tweneboah-Mensah, Auckland	Email
○ Accreditation coordinator	Amanda de Hoop, Manawatū	Email
○ Membership coordinator	Sue Talbot, Timaru	Email
○ Newsletter coordinator	Solita Walker, Waikato	Email
○ Website coordinator	Belinda Gordge, Canterbury	
○ NZNO Liaison	Michelle McGrath, Dunedin	
○ Committee member	Jo Duncan, Canterbury	

ACDN FACEBOOK GROUP

Please join our new members Facebook group which we will use to communicate with members about news and upcoming events – Click here to join

2022 NATIONAL CONFERENCE SERVICE TO NURSING AND MIDWIFERY AWARD PRESENTED

Roberta 'Bobbie' Milne was presented with this award at the most recent ACDN committee meeting. Congratulations Bobbie.

NZSSD TYPE 2 DIABETES GUIDANCE AND DULAGLUTIDE SHORTAGE

Summary of emails from NZSSD Exec

NZSSD Type 2 Diabetes Guidance has been updated. The guidance has had a widespread reach, improving equitable care for people with diabetes across Aotearoa. NZSSD are currently working on sick day and pre-diabetes guidance and will send out an update in the near future.

NZSSD **do not** support recent recommendations not to start new patients on Dulaglutide due to global shortage. NZSSD are encouraging all prescribers to continue to follow best practice guidance and prescribe according to guidelines and special authority criteria. Following metformin + lifestyle advice, for those who meet special authority criteria, guidance states that if heart failure or renal disease predominate initiate Empagliflozin, otherwise Dulaglutide is indicated for weight loss and previous cerebrovascular disease.

As of early December, Lily have reassured health care practitioners that Trulicity stock will continue to meet demand. Currently prescribing of both Dulaglutide and Empagliflozin has been equitable across ethnicities. NZSSD emphasize the need to continue to prescribe according to best practice to ensure equitable outcomes for Māori and reduce the long-term impact of medicine supply shortages.

If/when the time comes that Dulaglutide supply is affected in Aotearoa, NZSSD are working with Pharmac to find solutions such as making other GLP1RA or different doses of Dulaglutide available. NZSSD do support monthly dispensing of Dulaglutide to prevent wastage or stockpiling of medicines.

KEY PRACTICE MESSAGES

- Keep prescribing as per best practice guidance & special authority criteria
- Dispensing will be limited to monthly
- NZSSD will provide updates if/when Aotearoa is affected by the shortage

Note the full emails were sent to NZSSD members on October 20, & December 7, 2022 by Dr Rosemary Hall, President NZSSD

ACDN STUDY DAY

May 4th, 2023

Wharewaka Function Centre, Wellington

½ day study day for ACDN members

Bonus ½ day opening of NZSSD ASM

Register here

Aotearoa College of Diabetes Nurses NZNO

NZSSD ANNUAL SCIENTIFIC MEETING

May 4th – 6th 2023

Shed 6, Wellington Queens Wharf

Register here

New Zealand Society NZSSD for the Study of Diabetes

EUROPEAN ASSOCIATION FOR THE STUDY OF DIABETES (EASD) 2022

Ann Faherty, Diabetes Nurse Specialist, Starship Child Health, Te Toka Tumai

I was very fortunate to attend this conference in the beautiful city of Stockholm, Sweden in September 2022. EASD is the biggest diabetes scientific meeting in Europe and in 2022 was held as a hybrid meeting, enabling both in-person and virtual attendance. It is not a paediatric meeting but much of it was relevant to my practice. It's difficult to distil so much information into a brief summary but I have picked out the things that I thought were the most interesting.

COVID-19 AND DIABETES

There were many presentations on the impact of COVID-19 on people with diabetes and healthcare systems at this meeting. Bobbie Milne has written a detailed synopsis in the ON Target July/August Newsletter on the specific effects of COVID-19 on people with diabetes so I won't repeat this here. However, it was interesting to look at COVID through the wider lens, for example the huge financial cost on healthcare budgets (for example in the UK the excess spent during the pandemic is estimated at least £170 billion). While COVID-19 impacted diabetes care delivery in Europe early in the pandemic, it also lead to a surge in telehealth availability and electronic prescribing. There have also been innovations around how to prioritise when there was a backlog of patients not seen. An example of this from Guys/St Thomas Hospital in London, where an informatics systems approach was used to aid clinical prioritisation in a population of over 4000 patients with diabetes. They used 6 red flag criteria occurring since their last clinic appointment to identify the patients who needed to be seen first. These criteria were a diabetes related admission to emergency department or hospital, HbA1c >96mmol/L, a deterioration of HbA1c of >20mmol/mol, eGFR <30ml/min, or a fall in eGFR of >15ml/min or treatment for advanced diabetic eye disease. This system will continue to be used as an important tool to enhance care and improve efficiency of clinical service delivery for people with diabetes.

INCRETINS

Throughout the meeting there was a very large focus on the role of Incretins in managing obesity, preventing or delaying diabetes and in the treatment of diabetes. A treatment that combines both GIP and GLP receptor agonism theoretically may lead to greater efficacy in weight reduction. The development of co-agonists such as Tirzepatide is showing significant promise in clinical trials. SURMOUNT-1 recruited 2,5000 patients 18 years and older with BMI of >30 or >27 with co-morbidities using Tirzepatide. They showed that 98% on the largest dose of Tirzapetide (15mg) lost weight and improved fat to lean mass ratio and 20% of participants lost 25% of their body weight. The treatment group also improved HbA1c by 0.5%. 95%of participants with pre-diabetes became normoglycaemic and BP improved. Adverse events were transitory and mild to moderate and generally occurred in the dose escalation phase. Nausea was the most common – up to 35%, diarrhoea up to 23%, constipation 17%, and dyspepsia 11%, vomiting 12%. There was no evidence of increased risk of pancreatitis. Compared to GLP-1 receptor agonists, Tirzapetide had greater weight loss effects and less adverse

events. The weight loss with this treatment is getting close to the effects that bariatric surgery can offer. SURMOUNT-MMO is an international RCT with 15,000 patients that will continue to review the efficacy and safety of this treatment. The legacy effect of the treatment has not yet been established in subjects who completed the Surmout-1 trial. These drugs need to be considered within context of other treatments such as lifestyle and bariatric surgery. There were discussions around the role of these treatments in adolescents with high risk of CVD and the consensus appears to be that trials in this cohort should be considered.

HYBRID CLOSED LOOP SYSTEMS (HCL)

There are a number of systems being used and trialled throughout Europe. Medtronic 780G system is just being launched around Europe and there were "meet the expert" sessions teaching clinicians how to use the system to support patients with diabetes. The main takeaway is not to be too conservative. Go with the recommended insulin action time of 2 hours and target of 100mg/dl (5.6) and a carb ratio using the rule of 360. Move to Hybrid closed loop within 2 to 5 days to encourage patients with improved glucose TIR. Encourage patients to pre-bolus and don't use "fake boluses".

Omnipod 5 is the first tubeless HCL pump system (with phone app) used in a clinical trial with 235 participants including 110 children. Participants coming out of honeymoon phase had improved TIR compared to control group with no severe hypoglycaemia or DKA. Target 110 – 150mg/dl (6.1 to 8.3mmol/L) was reached 75% in adults and high 60% in children. Even those not bolusing showed improvement. A study from Spain using HCL in patients without pump therapy experience determined that it worked better than those who had been on a pump for a long time as they would fiddle less and tended to trust the system.

WEEKLY INSULINS

Currently being trialled in people with type 2 diabetes as basal insulin. The Onwards 2 study compared Icodec (weekly – U700) vs Degludec (daily) insulins and showed non-inferiority and non-superiority but can significantly reduce the burden of diabetes. To be used in the clinical setting, clinicians would need guidance on initiation (loading dose), dose titration and how to manage prandial insulin if needed. Also on identifying candidates and how to advise management of exercise, sick days, shift work and surgery and what to do if double doses (appears to be fairly forgiving).

Thanks to ACDN for funding from the Professional Development Grant to enable me to attend.

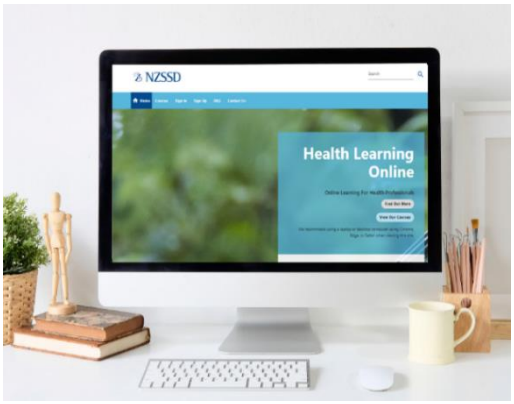
FREE EDUCATION REMINDERS

CERTIFICATE IN DIABETES CARE – University of Waikato, Dr Ryan Paul

This free, online diabetes teaching program led by Dr Ryan Paul is delivered via a combination of webinars and mentoring sessions. The course was rolled out over the Midland region between Waikato University, Hauraki PHO, Pinnacle PHO, and National Hauora Coalition with great success in 2022. We look forward to seeing the program reach GPs, GP registrars, Pharmacists, Nurses and other allied health professionals work in diabetes throughout Aotearoa.

NATIONAL DIABETES KNOWLEDGE PROGRAM – NZSSD Health Learning Online platform

This course is delivered via Health Learning Online & Ko Awatea Learn and is a free program aiming to provide all health care professionals with the knowledge and skills to work effectively with people and whanau living with diabetes. The content aligns with the National Diabetes Nursing Knowledge and Skills Framework 2018, Skills and Career Framework for Dietitians 2016 and the draft Podiatry Competency Framework for Integrated Diabetic Foot Care in New Zealand. The program provides fundamental knowledge on a range of subjects with an assessment on each. On completion you receive an NZSSD certificate and professional development hours.



NZSSD STUDY SESSIONS – Delivered by webinars for NZSSD members

These webinars initially were introduced in place of SIG study days in 2021, however thanks to their success have continued to be delivered for NZSSD members throughout 2022. Remember to register for these study sessions as you can watch back if you are unable to attend the session live, and if you are not already an NZSSD member this is another great reason to join.

PROFESSIONAL DEVELOPMENT GRANTS

Pharmaco Diabetes

The next grant round closing dates:
February 28th at 1600

MEDIRAY Diabetes

Grants are considered twice yearly (two rounds of $3,000) which can be awarded for diabetes related education to advance your knowledge base. Up to $750 can be awarded for workshops, study days, conference, seminars, PG study, or up to $100 for ACDN accreditation applications per applicant.

Applications must be submitted on the ACDN professionals development grant form
and emailed to acdn.membership@gmail.com

ACDN gratefully acknowledge the contribution from our sponsors Pharmaco and Mediray towards nurse education via the 'Diabetes Nurse Education Professional Development Grant'.

REPORT FROM THE DIABETES AND RELATED CONDITIONS REGISTERED NURSE PRESCRIBERS AND NP MEETING 2022

GINA BERGHAN (MN, RN PRESCRIBER PRIMARY HEALTH AND SECONDARY TEAMS)

The Diabetes Related Conditions Registered Nurse Prescribers and Nurse Practitioners Meeting was held in Wellington from the 16-17th August 2022 with an estimated attendance of just over 100 people with seating along the walls to accommodate everyone. The program was comprehensive and varied. This meeting is unique targeting registered nurses and nurse practitioner prescribers for knowledge exchange with up-to date best practice, education, treatment, and prevention. This meeting provides a good opportunity for Registered Nurse Prescribers to connect and network. The program provided a range of topics that delivered a lot of learning snippets/extracts that I could reflect on and improve my clinical practice.

The sessions consisted of variety of topics followed by case studies in the afternoon. I enjoyed and learnt a great deal over this 2-day meeting. On reflection these presentations resonated with me and I continue to make those improvements in my practice.

1. Shelley Rose (Nurse Practitioner) presentation “Medical nutrition Therapy in diabetes care”. It made me think more about how to look and assist when patients are faced with food insecurities. I was taken back by the statistics of the population in New Zealand that are experiencing food insecurity and was disappointed that there appears to be gaps in Government policy. Food insecurity is defined as the lack of access to an adequate quality and quantity of nutritious food. Food insecurity is a “nested issue” under the umbrella of poverty, and stems from inadequate incomes and high living costs. Approximately 14.0% of the New Zealand population is food insecure and needs assistance and appears to lack coordinated government policies. There are, however a network of non -governmental organizations committed to responding to the growing issue of food insecurity. The Health Survey also examined the food security status of children, including the differences between ethnic groups. Findings showed that approximately 37% of children in the Pacific ethnic grouping are most frequently food insecure. Children within the Māori population are the next most affected ethnic demographic with 28.6% considered to be food insecure. The prevalence of food insecurity among children of European descent is 15.4%, while those of Asian descent is 8.5%. The 2018/19 Health Survey further explores the relationship between obesity and ethnicity. It found that obesity disproportionately affects the Māori and Pacific Peoples, such as Samoan, Cook Islands Māori, Tongan, and Niuean ethnic groups. Pacific Peoples have the highest prevalence of obesity (66.5%), followed by Māori (48.2%), European/Other, (29.1%), and Asian (13.8%) (Figure 8) (New Zealand Health Survey, 2019). A 2012 University of Otago Master of Science thesis on the topic of food security in New Zealand identified the relationship between food security, ethnicity, and body weight. There is a positive correlation between food choices, nutrient intake, and food security. She emphasized the consideration of food and nutrient intake when understanding the relationship between food insecurity and Body Mass Index (BMI). since “one of the first steps in food insecurity is to decrease the quality and variety of the diet consumed”. Food currently in New Zealand is really expensive and we have this year experienced flooding and due to covid have had a significant decrease in workers from other countries to pick and pack our fruit and vegetables. food security is a real concern.

2. “Pain Management in diabetes- where is the nurse & prescribing?” presented by Judy Leader Nurse Practitioner: The key principles of addressing pain are:

- Regular administration of pain relief is more effective than PRN
- Small frequent doses are more likely to produce effective analgesia without adverse effects compared to large infrequent doses
- Maximal effect relies on optimal medication choice, dosage, frequency, route, and understanding

3. Andrea Roderkirk presented a case study: “Diabetes and Māori: against the tide”. She gave a very good timeline of Māori health and colonisation. Andrea was quite emotional (tautoko I te tangi aroho mai) we have lived through racism, unconscious bias and to some extent continue to live the injustices of inequity the loss of land and language, so it is an emotional topic to discuss. Thank you, Andrea, for a great presentation unfortunately not many Māori in the whare still.

4. Dr Brian Betty presented “Telehealth: The benefits & Pitfalls”. Due to Covid-19 the diabetes services in secondary care turned to telemedicine/consults. One of the surprising pitfalls was that telemedicine did not improve costs and or care. Patients are still finding it difficult in some areas to see a doctor.

5. Dr Drury presented “Diabetes in NZ: numbers & trends”, unfortunately for Māori and Pacifika numbers have not improved and much more work needs to be done to turn the tide.

It was so good to network with colleague’s kanohi ki te kanohi and hear what others are doing around the motu in regard to delivering diabetes care. I want to thank all the work and support that I/we have received in particular from Dr Helen Snell but also bid farewell to two supportive doctors that are retiring. Without them we may not have been here as prescribers. Dr Tim Cundy and Dr Paul Drury: words cannot express our gratitude and support you have given nursing.

Retiring physicians Dr Paul Drury (Right) and Professor Tim Cundy (Left)

He aroha whakato he aroha puta mai (If kindness is sown than kindness you shall receive).

I big thank you to Aotearoa College of Nurses for supporting me to attend the meeting

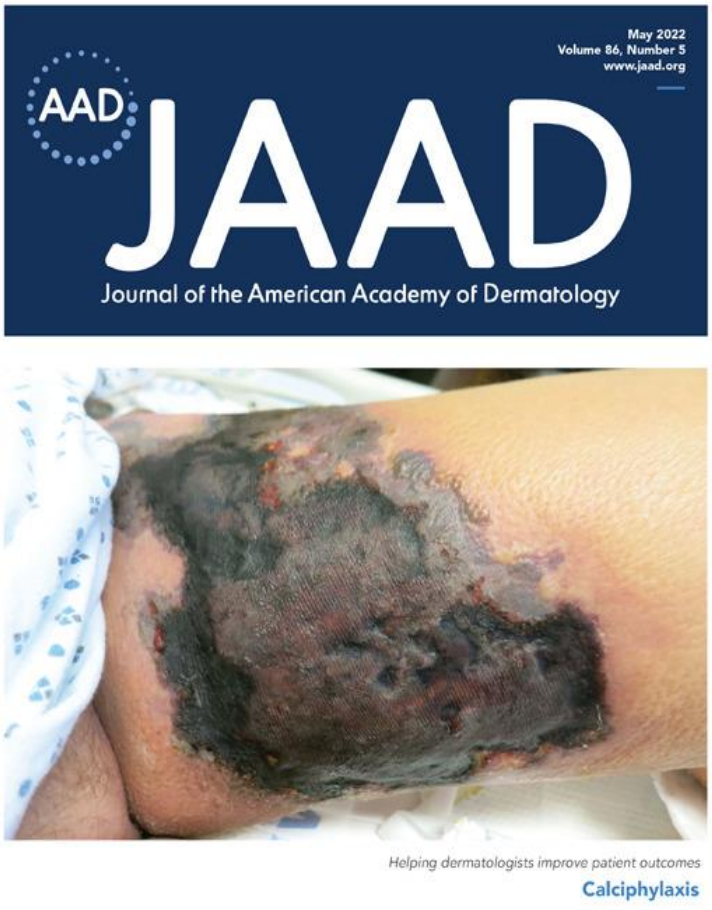
Gina Berghan (MN, RN prescriber)

CALCIPHYLAXIS

Bobbie Milne, NP

Calciphylaxis – also known as calcific uremic arteriolopathy – it's a rare disease involving patients with end stage renal disease (ESRD). It causes painful skin lesions that involve to ulcerative lesions with risk of infection and sepsis. It has a poor prognosis – one year survival rates vary between 45 – 55%. Risk factors for this are being female, obese, diabetes and ESRD. Dysregulation of calcium phosphate metabolism participates in its development. Histopathological finding of skin mostly associate with thrombus and vessel calcification. There is no formal diagnostic criteria but it diagnosis is made on the histopathological features which features necrosis and ulceration of the skin with calcification of tunica media and intima of small to medium arterioles in the dermis and subcutaneous fat and concentric stenosis from intimal thickening in the small to medium arterioles in the dermis and subcutaneous fat – in Japan the criteria suggested – were that the patient was no haemodialysis with eGFr <15 mL/min, painful skin ulcers with painful purpura and painful ulcers on the trunk, extremities or penis along with the purpura. They have tried several times to present consensus guidelines for calciphylaxis but to date there are no clear guidelines (Journal of American Academy of Dermatology, 2022).

Stabilising the disease – standardized dialysis guidelines should be followed for patients with calciphylaxis – maintain normal serum calcium and phosphorus levels through medical treatment when possible. Discontinue calcium, vit D and iron supplements as well as Warfarin and systematic corticoid steroid use should be considered owing to their association with increased risk of calciphylaxis. One year mortality ranges from 40 – 80%. ESRD is risk factor for calciphylaxis and patients are typically on dialysis. Need to coordinate care with the renal team – patients may benefit from transfer from PD to haemodialysis. Additionally intravenous sodium thiosulfate could be administered during Haemodialysis. Those with ESRF often have metabolic abnormalities affecting bone metabolism. Microvascular calcification seen in calciphylaxis may be partially related to aberrant bone metabolism and can be reflected in derangements of the parathyroid hormone as well as calcium and phosphate levels.



Hypocalcaemia, hyperphosphatemia and an elevated calcium phosphorous product, hyperparathyroidism and Vit d deficiency are common in patients on dialysis. One goal of therapy is to minimise the effects that these metabolic changes may have in patients with calciphylaxis.

Suggested to have parathyroid levels between 150 ng/mL and 300 ng/mL. Cinacalcet is a calcimimetic medication that decreases parathyroid hormone levels by increasing sensitivity of the calcium-sensing receptors. This could reduce the need for parathyroid surgery – debate over whether patients would benefit from this surgery if they don't have hyperparathyroidism. Nephrogenic hyperphosphatemia can be modified by using calcium containing phosphate binders but this may cause hypercalcemia. Achieving a phosphate level near or below upper limit of normal of 4.5 mg/mL has been associated with improved outcomes in patients with calciphylaxis. Non calcium based phosphate binders such as sevelamer and lanthanum carbonate are now available to help maintain calcium and phosphorus serum levels within normal range. Calcium supplementation should be discontinued and Vit D supplements should be used judiciously. Warfarin is Vit K antagonist and Vit K plays a role in the activation of matrix Gla protein – there are further studies into the role of Vit K and calciphylaxis. Apixaban have been demonstrated to be a safer alternative in patients with calciphylaxis. Histological evaluation of tissue biopsies from patients with calciphylaxis have demonstrated iron deposition, intimating iron supplementation as potential risk factor – although this was not seen in studies with larger number multicentre cohort study.

Multimodal therapy is the cornerstone of treatment of calciphylaxis. Intravenous sodium thiosulfate is thought to be first line medical treatment. Side effect – nausea, metabolic acidosis and volume overload. Intralesional sodium thiosulfate may be an alternative. Need palliative care – pain management and would care are essential for promoting wound healing, preventing infection and maintaining quality of life of the patient. Need to halt the disease activity, minimising risk factors, prevent infection, managing pain, promoting healing. Improved skin lesions, resolution of purpura, no new lesions or ulceration, reduction of pain intensity and optimization of wound bed – early intervention, MDT team – dermatology, nephrology, pain management, surgical specialist have been reported to improve outcomes.

Calciphylaxis lesions are notoriously painful – pain control is extremely challenging due to tissue ischemia with some nerve inflammation causing a neuropathic component. So analgesia is required especially before dressing changes. May also consider gabapentin, pregabalin although care is needed in the dose with ESRF. Wound care focuses on lesion protection, debridement – could be surgical or dressing and prevention of infection. Treat with antibiotics if think have infection – increased pain, purulent discharge, development of new lesions or expanding erythema or deterioration of vital signs. Conservative surgical debridement of necrotic tissue with Vac pressure dressings. Those resistant to treatment – may consider alternatives – Bisphosphonates may stabilise bone metabolism. They may reduce calcium levels. Nephrology consultation – can help determine dose and duration of treatment. Hyperbaric treatment has been used so may be considered for calciphylaxis. Vit K supplements during haemodialysis has reportedly improved outcomes – oral pentoxifylline may improve calciphylaxis by promoting tissue perfusion via an anti inflammatory and vasodilatory response.

Conclusion

Calciphylaxis is a poorly understood, highly morbid condition associated with mortality – lack of diagnosis criteria can make it extremely challenging. Need high index of suspicion and early diagnosis and treatment improves morbidity and mortality by minimising degree of skin and subcutaneous tissue necrosis

NZSSD Gastroparesis Webinar September 2022

Sue Talbot, NP

2022 has been a year of fantastic webinars with Gastroparesis being the topic for September. Presenters Liz Love (Canterbury), Amanda Whitford (Waitemata), Dr Charlotte Daker (Alimentary Ltd, Auckland), Fiona Williams (Waitemata DHB), Elizabeth Brookbanks (Waitemata) and Emily Stokes (Waikato) shared their knowledge and experiences on the subject of gastroparesis.

Amanda Whitford, gave a presentation on the development of a chronic nausea and vomiting pathway. Research for the pathway development included a study which looked at experiences of people with gastroparesis and their experiences with the health sector. Patient centered, MDT approach with early psych input was seen as a vital part of the management of gastroparesis. The study provided useful information, highlighting the need for streamlined investigation and management. This includes structure nutrition input with resources and plans, including a Nutrition Information Sheet.

It is hoped that a Chronic Nausea and Vomiting Pathway will eventually be shared with all public hospitals. This promotes standardised care, improving health outcomes for people living with gastroparesis.

Next to present was Charlotte Daker. She gave us an insight into the advantages of using surface gastric mapping to identify gastric abnormalities. Fiona Williams and Elizabeth Brookbanks followed with 'Top Tips for Testy Tubes'. These include flushing the tube before and after each intermittent feed, every 4-6 hours during continuous feeding and before and after each drug administration to help prevent interactions between feeds and drug administration and to prevent blockages. They reviewed how to flush medications and discussed drug interactions. Medicines used for gastroparesis were also discussed. A new drug currently under trial overseas is Relamorelin, a synthetic ghrelin analog which increases growth hormone levels and accelerates gastric emptying.

Amanda Whiteford followed with a presentation on initial dietary strategies including frequent snacks and meals to help stomach emptying, using slow cooked foods and soups that digest easier, reducing high fibre and high fat foods, and advice on fluids.

Emily Stokes then gave a case presentation, showing the lived experience of gastroparesis. The webinar finished with a panel discussion.

I fully recommend the NZSSD webinars and remind people that if they are unable to join the live webinar, you can register and watch at a later date.

ACCREDITATION NEWS

Amanda De Hoop, ACDN Accreditation Coordinator

We currently have 48 accredited nurses - 38 Specialist RNs, 8 Specialist NPs, and 2 Proficient RNs. The October 2022 round is still in progress but would like to congratulate Navjot Kaur (Counties Manukau) and Heather Campbell (Capital Coast) for being awarded specialist RN accreditation, as well as Bryan Gibbison (Waikato) and Vickie Corbett (Waikato) for being awarded specialist NP accreditation.

NEXT ACCREDITATION ROUND

The next accreditation round:
opens January 27th, 2023 and closes at midday March 3rd, 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: ACDN Accreditation

ASSESSORS

Many thanks to our current assessors: Bryan Gibbison and Solita Walker from Waikato region, Pauline Giles from Whanganui, Heather Campbell from Capital Coast, Andrea Rooderkerk from Bay of Plenty, Bobbie Milne and Harpreet Kaur from Counties Manukau, and Lois Nikolajenko and Emma Ball from Midcentral. Your contribution to the accreditation process is much appreciated. We are always looking for more accredited nurses to become assessors, so please get in touch if this is something of interest. 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.

Wishing you all Merry Christmas and Happy New Year.

Amanda de Hoop

Coordinator - ACDN (NZNO) Accreditation Programme

Nurse Practitioner – Midcentral, Te Whatu Ora

Email: amanda.dehoop@midcentraldhb.govt.nz

With thanks to our sponsors