Member Newsletter

September 2022

President's message

Hi everyone,

Such a busy time for all of us and the conference is right around the corner, how exciting, we have been waiting with bated breath and it seems like it's all GO so see you all there.

This is my last message for you all and I would like to thank everyone for continuing to support the Australian College of Neonatal Nurses, we have come ahead in leaps and bounds in terms of providing support and educational opportunities for members during a very difficult time. So, I say adieu and will see you all at conferences, wishing you all the best in the future.

Special thanks to the Executive who do many hours of work in their own time, and to our amazing Executive Support Officer.

Don't forget the scholarships available to all our members, check the website for details. These applications are being received regularly through the year and it's a great opportunity to receive some support for additional professional development.

As I say every time in my message, please take care of each other and your families.

Regards,

Anndrea Flint

Queensland Branch Report

Despite coinciding with yet another wave of Covid-19, there was excellent attendance at the 'Hot Topics in the Tropics' seminar at beautiful Magnetic Island in July. The Queensland Branch in association with the Townsville University Hospital (TUH) Neonatal Unit and Perinatal Research Group provided an engaging programme, which included both local and interstate speakers presenting on a broad range of topics, including the outcomes of research conducted at TUH.

The key-note speaker, Professor Julie Oei, entertained delegates with dynamic, informative, and inspiring presentations on Neonatal Abstinence Syndrome and the impact of current drugs of addiction and medications versus the traditional Neonatal Opioid Withdrawal. We even got a lesson on methamphetamine manufacturing and some sobering data on the apoptosis of neurons in babies exposed to these substances. Dr Meegan Kilcullen and Dr Cecelia O'Brien described the unique experience of stillbirth amongst first nations women as well as exploring perinatal outcome disparity in North Queensland. Along with a presentation by Neonatal Nurse Practitioner and member of the ANTS-NQ retrieval service, Ruth Oldfield, these presentations served to give attendees a distinct understanding of the differences experienced by neonatal nurses in regional and remote areas of North Queensland.

An interesting presentation by Dr Stephanie Baker described how artificial intelligence (AI) can help predict outcomes using mega-data from monitoring. Delegates were also treated to enlightening presentations on

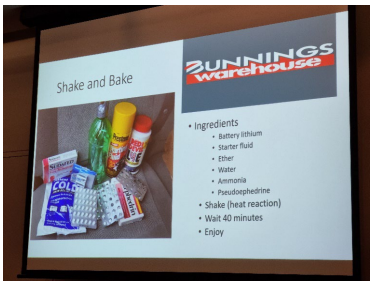
markers of acute kidney injury and the interpretation of renal ultrasounds in the perinatal period. These presentations provided a chance to be refamiliarized on renal anatomy and physiology, and also provided new knowledge into new and more reliable markers of renal function and the importance of understanding what ultrasound findings mean for kidney function.

Delegates congratulated Dr Deanne August's completion of her PhD and were treated to her fascinating work in understanding neonatal skin and plans for her post-doctoral work. We were also treated to a very enthusiastic talk about 'poo' and the microbiome. Positive results are emerging that our use of probiotics for preterm infants is improving their microbiome diversity. Only nurses can sit in a conference and snack their way through a talk about poo, right?!

All-in-all, this was a brilliant conference that show-cased the amazing work being done in North Queensland. The Queensland Branch also held a general meeting, during which the door raffle was drawn (prizes kindly donated by the TUH nursery team), raising a total of $196.00. The dinner and evening seminar completed a fantastic day of education and networking for all in attendance. The Queensland Branch would like to thank the Townsville University Hospital teams for helping to organise this event.

Registration Table
L to R
Melody Emerson (Treasurer Liaison), Wendy Carlish (Chair)
Louise Thiele (TUH), Anne Illingsworth (TUH)

Professor Julie Oei entertained us with her insight into drugs of choice in circulation today and their effects on neonates.



Queensland Branch Committee Representatives
Kristin Hughes (Secretary), Wendy Carlish (Chair),
Melody Emerson (Treasurer Liaison)

Leadership SIG

Scholarship Report

It is with gratitude that I thank the ACNN Leadership SIG in supporting my application and awarding me a scholarship towards completion of the Women's Leadership Australia Executive Ready Program from November 2021 to July 2022.

The program was offered online with a series of modules, discussion forums, webinars and workshops. I enjoyed the opportunity to learn in a safe space, with women across Australia with diverse careers and backgrounds. Hurdles included completing 360-degree feedback, reflecting on peer coaching sessions, and concluded with a self-directed Professional Leadership Project.

I was able to reflect on working styles, compare and differentiate leadership and management, consider the concepts of driving performance and resistance to change, recognise stages of team development and practice and implement the Plan, Do, Study, Act (PDSA) improvement science model.

The highlight, however, was exploring my interest in *Influencing without authority* models. As a project lead working with neonatal clinicians within an Expert Working Group (EGW), I have welcomed the opportunity to reflect on my personal brand and style, and the power of influence and building rapport. I have matured as a leader, acknowledging the frustrations felt by the impact of the ongoing COVID-19 pandemic on missed timelines and workforce fatigue, have tested change ideas, reset millstones, cheerlead, coached, debriefed and celebrated achievements. I have learnt to bring my best self to interactions, using the "third space" idea and feel this has

enabled me to be consistent, reliable, and accountable. Exploring *Influencing without authority* models has changed my approach to leading teams, and I am grateful for the opportunity this course has given me to do that in my current and future roles as a neonatal nurse, and the personal and professional growth I have achieved.

I look forward to further sharing my leadership progression with ACNN members at the Leadership SIG open forum on 24 October 2022.

Melissah Burnett

Undertaking Public Health study?

If so, then consider applying for the Renee Collisson Scholarship which is open to ACNN members who are undertaking postgraduate studies in the field of public health.

Details HERE or enquire at lrcsig@acnn.org.au

Also, do you know a nurse working in a low resource setting?

The LRC SIG will be looking to sponsor a nurse working with neonates in a developing country to the ACNN 2023 Conference in Adelaide. This sponsorship comes under the Low Resource Setting Nurse Scholarship. So, if you know of someone – please let them know about the scholarship or contact us so we can let them know. Full details of the scholarship HERE.

NNP SIG Workshop 2022

Before Europeans arrived, the Kaurna tribe lived in the Adelaide area. The Indigenous Australians called the Adelaide area Tandanya, which means the Place of the Red Kangaroo. Adelaide was a planned city, and it was named after the wife of King George IV.

In 1900 the population of Adelaide was 162,000 and it was growing rapidly. As Adelaide expanded, more buildings were added. Parliament House in Adelaide was built in two parts. The West Wing was built in 1889 and the East Wing was built in 1939. In 1904 a statue of the explorer John McDouall Stuart was erected in Adelaide and 1906 a statue of William Light was unveiled. The Botanic Gardens opened in 1857. Adelaide gained a gas supply in 1863 and an electricity supply in 1900. Meanwhile, Adelaide Oval was established in 1871, Adelaide University was founded in 1874, and the Art Gallery of South Australia was established in 1881. Adelaide airport dates from 1921, and the War Memorial in Adelaide was built in 1931. Flinders University opened in 1966, Rundle Mall

Shopping Centre opened in 1976, Adelaide Festival Centre was completed in 1980. The Adelaide Convention Centre opened in 1987 and the Tandanya Cultural Institute opened in 1989. Adelaide is also known for the South Australian Museum and the Migration Museum, which opened in 1986. The South Australia Maritime Museum also opened in 1986. Adelaide is a thriving city. Today the population of Adelaide is about 1.3 million.

This was a great city to host the NNP SIG workshop 'Recharge & Reconnect' with a great range of local speakers providing a diverse and educational program, organised by the Adelaide neonatal nurse practitioners: Julie Bernardo, Gill Mibus and Miriam Long. Thirty-five nurses attended, travelling from all over Australia – one attendee even made the trip from Perth.

Ultra-rapid genomic diagnoses in the neonatal and paediatric intensive care unit: how it helps families, clinicians, and hospitals

Professor Christopher Barnett

In this talk a short summary of the major advances that have occurred in genetic diagnoses in the last 5-10 years was presented, and how this shaped the acute care project, an ultra-rapid whole genome study in critically ill newborns, infants and children suspected of having a genetic disease. The clinical, family and health economic perspectives of ultra-rapid diagnosis in the NICU/PICU setting were discussed.

Update on ROP and treatment

Dr Deepa Taranath

ROP has been quite topical in recent times with an updated ICROP classification in 2021. There is greater uptake of tele screening of ROP and artificial intelligence (AI) is slowly making its footprint in ROP diagnosis and management. The challenges of using Anti-VEGF medications in ROP treatment continue. Dr Deepa Taranath provided an update on these aspects.

Neonatal encephalopathy - beyond cooling in NICU

Dr Kathryn Martinello

Kathryn is a consultant neonatologist who worked at Great Ormond Street Hospital, London, UK and an honorary research associate with the Institute for Women's Health, University College London. She is a PhD candidate at the Robinson Research Institute, University of Adelaide, Australia. Her research, both clinical and preclinical, is centred on improving neurodevelopmental outcome and protecting the new-born brain following perinatal asphyxia across all settings.

Anticonvulsants used in neonates

Mark Minervini

Mark has spent ten plus years in hospital pharmacy with most of this time in paediatric, neonatal and women's health. He is the senior pharmacist in the Women's and Babies Division of WCH for the last three years, spending most of his clinical time in NICU. Mark is an active member of the SA Neo med Working Group, reviewing neonatal medication monographs for use in South Australian hospitals.

How to organise, implement and share - quality improvement project?

Dr Alvin Tan

Alvin is a Neonatal Consultant at Flinders Medical Centre. He is dually trained in General Paediatric and Neonatal/Perinatal Medicine with the Royal Australasian College of Physicians, Paediatrics and Child Health. His

areas of interest include epidemiology, quality improvement and education. He is the quality improvement lead in the Neonatal Unit at Flinders Medical Centre and liaison with the ANZNN and SALHN Continuous Improvement Programme. He also chairs the SALHN Neonatal Clinical Guidelines, Procedure and Protocol Committee and is involved in the Neonatal Resuscitation Programme.

Feedback from the workshop

Great event! I thought the venue was perfect and catering adequate. We were made to feel very welcomed by the Adelaide NNPs and there were several opportunities to network with other NNPs around Australia. Well done!

Wonderful day – thank you so much for your efforts.

An excellent conference in a great location. Well Done Adelaide Team!

Thank you very much for organising this workshop. I thoroughly enjoyed each presentation and learnt a lot of information that I can apply to my practice. I also enjoyed the opportunities for networking and socialising and have now formed connections with other clinicians in the field. I will be definitely recommending future ACNN NNP SIG events to my colleagues.

An excellent conference in a great location. Well Done Adelaide Team!

More time on genetics as fascinating.

The Neonatal Nurse Practitioner Recharge & Reconnect Workshop was a terrific blend of interesting education topics and networking opportunities suitable for anyone working in a neonatal unit. I enjoyed every minute.

Thank you, that was an educational and enjoyable day/evening.

Neurodevelopmental Care SIG

Kangaroo-a-thon

The Kangaroo-a-thon runs for two weeks in May and is promoted internationally. This event aims to promote kangaroo cuddles for NICU and Special Care Nursery (SCN) babies and their parents. The team of Royal North Shore Hospital's (RNSH) Neonatal Intensive Care Unit (NICU), Sydney NSW enrolled in the Miracle Babies annual Kangaroo-a-thon this year. Carmel Pearsall, the Discharge Coordinator, who also is a longstanding member of the Australian College of Neonatal Nursing (ACNN) and a member of the Neurodevelopmental Special Interest Group, ACNN, led the registration and organisation of the event in our NICU. Carmel has been organising the event in recent years and is very motivated to encourage parents and staff to tally the hours of kangaroo cuddles during the event.

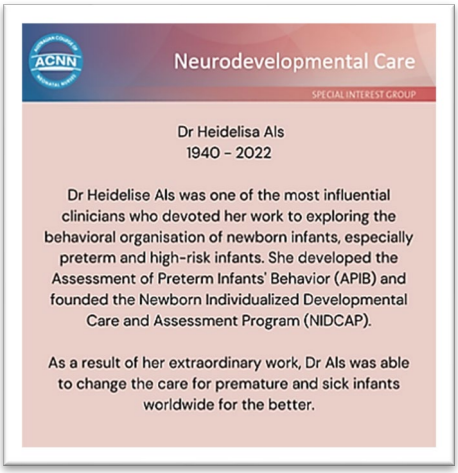
Twenty-six units participated in this year's Kangaroo-a-thon, including three international neonatal units. The NICU at RNSH was tallied with the most hours of kangaroo cuddles compared to all other units participating.

The prize for achieving the most hours of kangaroo cuddles was a lovely kangaroo care chair. This excellent result would not have been possible without a motivated NICU team and the parents who, despite COVID restrictions and regulations, continue to maintain this essential neuroprotective strategy with their premature and sick babies in our unit.

Kangaroo cuddles, also known as skin-to-skin holding, are well known for their multiple benefits for babies and parents alike and have been progressing to become a standard of care at RNSH NICU over the last fifteen years.

Well done, team! Special thanks to Carmel, the nursing and medical team at RNSH NICU, and the parents.

It is with great sadness and heavy hearts that the Neurodevelopmental Care Special Interest Group acknowledge the passing of Dr Heidelise Als in recent days, she will be deeply missed.



Nutrition and Feeding SIG

Case study: a preterm baby's feeding journey

Linda Thomasson
RN RM CN-SCN IBCLC-Lactation Consultant, Bundaberg Family Unit, QLD

I would like to share a story about Skye (pseudonym) throughout her neonatal journey, focussing on feeding. While her feeding instincts did not surprise me, her way of teaching us to pay attention and read her cues more closely was inspirational.

Perinatal history

Skye and her twin sister were born in a regional hospital at 29^{4} weeks, first pregnancy for the mother. Obstetric background included gestational diabetes, spontaneous labour, membranes ruptured for 2½ hours, antibiotics, corticosteroids, magnesium sulphate infusion, cephalic presentation and vaginal birth. Skye cried at birth, and was awarded Apgar scores of 6 at one minute, and 7 at 5 minutes. Resuscitation was provided via CPAP 5cm, with 40% oxygen. A venous blood gas sample gave results of pH 7.378, BE -2, HCO3 23.3, and lactate 2.9.

Neonatal history

At birth, Skye weighed in at 1340g (65^{th} centile on Fenton chart) with a head circumference of 27cm (60^{th} centile). Her respiration was supported by bubble CPAP, an umbilical venous catheter was inserted and an infusion of 10% Dextrose was commenced, at a rate of 60ml/kg/day. Prophylactic antibiotics were commenced, and a nasogastric

tube was inserted. Her initial blood sugar level was 4.2mmol, and a chest Xray showed diffuse markings in the lung fields, indicating respiratory distress syndrome.

The tertiary retrieval team arrived when Skye was 4 hours old. She was intubated and a dose of surfactant was administered when Skye was 5 hours old. Both twins were taken to the tertiary referral centre and stayed there for 63 days (corrected GA 38[2]) before being transferred back to our facility.

While at the tertiary centre, Skye received 44 hours of mechanical ventilation, followed by 27 days on CPAP, followed by humidified high flow nasal air via nasal prongs for 9 days. On transfer she was on minimal oxygen via nasal prongs, which was very quickly weaned and removed, with no further respiratory issues. Other complications included some cardiac issues, including a patent ductus arteriosus, which was treated medically, and a grade 1 intraventricular haemorrhage that did not progress further.

On arrival, Skye weighed 2968g. Her initial nutrition was supplied by IV total parenteral nutrition, which was gradually weaned to full enteric feeds of breastmilk by 11 days of age. On her return she was receiving breastmilk and formula via a mix of tube, breast and bottle feeds, but no specific details of Skye's feeding behaviour were provided.

Feeding progress

Skye's feeding was a challenge for our team and her family. She vomited at every feed, before, during and after feeds, and we quickly noted her suck was uncoordinated, was protruding her tongue to push the teat out, and would gag if the teat was put into her mouth.

In her first week in our centre, the frequency, amount and force of non-bilious vomits, and her unsettled behaviour, led to reducing her total fluid quota to 160ml/kg/day, commencement of thickener, an abdominal ultrasound to rule out pyloric stenosis, Lactation Consultant review and a Speech Pathologist referral.

Discussions with the baby's mother and grandmother around Skye's feeding informed us that she was unsettled and vomiting prior to back transfer. The senior Speech Pathologist was notified when Skye's mother and grandmother would arrive in the special care unit so she could assess Skye's bottle feeding with them. It was noted that the baby was disengaged, with pursed lips, a gag reflex, a disorganised suck, with back arching, crying, biting down then spitting out milk, or vomiting. A trial of a Pigeon teat for slower flow initially reduced the vomiting but increased the feed time and disengagement with feeds. Some feeds were taking up to 30 minutes with only 20ml taken.

As the Lactation Consultant/neonatal nurse, I discussed breastfeeding and milk supply with the mother, noting she was expressing around 60ml once per day. When there was an opportunity to review a breastfeed, it was noted that Skye exhibited all the normal feeding cues of moving her head from side to side, hands to mouth, vocalising and cuddling into her mother. She was observed to use searching behaviours to find the breast and nipple through her senses of touch, smell, and taste to move towards the breast, to lick and open her mouth and latch at the appropriate time to enable a good latch followed by good milk transfer. What was noted from her breastfeed was not surprising – there was no tongue pushing out the nipple, no gag, the nipple/breast was taken well in, her suck-swallow was co-ordinated, there was no refusal, no distress, and no vomiting. Planning to increase milk production and breastfeeds was difficult due to the babies' mother living out of town and difficulty with transport. Her grandmother provided assistance, remained a stable support and participated in all care and discussions.

Over the next week, omeprazole was commenced for ongoing unsettled behaviour and vomiting with weight loss. Plans were made to ensure a full quota top up via nasogastric tube if not taken orally. Feed thickening was discontinued as this may have caused longer feeding times with more energy used to feed.

The Lactation Consultant and Speech Pathologist discussed their observations, and a feeding plan was formulated and clearly documented so that all staff could ensure consistency of feeding techniques. The feeding plan was also discussed with the family.

Feeding plan outcome

The plan was simple – be guided by Skye!

Firstly, she was to be positioned comfortably and engaged with visual and verbal communication, her body held close and supported, ensuring hands were free to touch and explore, and not to be restricted. Then Skye's lips were to be touched gently with teat to encourage her searching behaviours, allowing her to bring her tongue out to accept and take teat by herself. There was to be no attempts to open her mouth or push the teat into her mouth, and same when offering a dummy. The teat was removed at any sign of tongue protrusion, change in her suck action, or signs she wanted to pause and rest. She was cuddled upright after the feed. When wrapped for sleep, her hands were positioned at the midline on her chest and not restricted, so she may put her hands to mouth for soothing and for feeding skills development. We also decided to continue medications via nasogastric tube at this stage to further reduce negative oral stimulation.

Skye's feeding slowly improved over the next week, with staff and family following the plan for positive feeding times. The Speech Pathologist noted good searching behaviours, with nurses responding well to baby's cues, with improvement likely due to responsive feeding and provision of positive oral experiences. Skye's mother continued to express infrequently and occasionally attempted breastfeeds. When she did breastfeed, Skye's instinctive feeding behaviours were evident but minimal milk transfer was noted.

Skye's feeding actions and engagement with feeds improved, taking up to 60ml within a 30-minute time frame at some feeds. Her vomiting did continue, but less frequently and with unsettled behaviour. The omeprazole dose was increased and top up by nasogastric tube was continued to ensure the full quota was given.

By week 4, Skye's feeding had improved slowly, but she was still not taking reasonable volumes. The team of paediatrician/registrar, senior neonatal nurses, Lactation Consultant, Speech Pathologist, Social Worker, and community Child Health Nurse concluded that Skye and her sister should be prepared for discharge home. Her sister was fully bottle feeding well, but Skye would need to continue nasogastric tube top ups at home. The family were consulted on this plan.

During week 5, Skye continued to receive feeds at 160ml/kg/day, by demand up to 4 hours, with occasional breastfeeds, noting that breastfeeds were more successful for feeding but not nutritional enough to sustain growth. However, it was assumed that the slower flow of the breastfeeds was easier for Skye to tolerate.

The twins' parents came to room-in for 3 days and nights, further learning their babies' behaviours, care requirements, feeds, medications, nasogastric feeds and all related care. Forward planning with the community Child Health Nurse, paediatrician follow-up and other related follow up arrangements were made.

The twins' parents became confident with caring for their babies and all were discharged home on day 102 at 43^{5} weeks corrected age, but not before the 100-day party! Discharge weight for Skye was 3205g (slightly over 3rd percentile).

At one month and 3 weeks corrected age, Skye weighed 3560g (under 3rd percentile). The parents noted vomiting with nasogastric top ups, so the tube removed and full suck feeds of 105ml 4-hourly, were given, with occasionally 10ml left in the bottle. After discussion with the paediatrician, her feeds were increased to 115ml 4-hourly. Review by the Speech Pathologist showed an excellent suck, no difficulties, and only mild reflux post feed.

From a regional nursery perspective, we infrequently find oral aversion in babies. Baby Skye's story demonstrates the importance of the family and health team's collaboration in making individualised care plans that are guided by the baby.

It is interesting how the tiniest of babies use their survival instincts, and we see them very early on. After 35 years a neonatal nurse and 23 years a Lactation Consultant, it continues to amaze me, and they continue to teach me just how intricate these instincts are and how important it is for us, as clinicians, to look and listen to what they are telling us.

Skye was telling us, "*I can do this... but it will be on my terms and in my time*..."

Research SIG Report

We are pleased to update you on what has been a hectic three months for the Research Special Interest Group.

Firstly, the Neonatal Nursing Outcome Measures (NNOM) research project is proceeding at a rate of knots! This study aims to establish a framework for measuring neonatal nursing contributions to neonates and families' health outcomes, based on a recommended bundle of interventions. Thank-you so much to Laura Briguglio, the project's research assistant, and Dr Margaret Broom and Dr Jann Foster for their leadership in this critical study. The literature relating to six core outcomes across seven practice categories has been appraised, synthesised, and mapped against four practice standards. A scoping review summarising the findings is being written, and ethics approval to conduct neonatal nurse focus groups has been received from Western Sydney University. Please watch for an emailed invitation to be involved in that crucial phase. We would love to receive your input.

Next, our attention has been on our forthcoming conference. The R-SIG randomly selected eligible members from three distinct categories to receive an attendance scholarship. Congratulations to:

1. Leanne Hegarty – Research SIG member, attending an ACNN conference for the first time.
2. Stephanie Hall – Early Career Researcher, presenting at an ACNN conference for the first time.
3. Renee Muirhead – Expert Researcher, acknowledged for presenting at a National/International conference throughout the year.

HESTA has also generously sponsored our conference table. Please visit us to learn more about HESTA and the R-SIG, establish professional contacts, and perhaps win our raffle prize!

Finally, we have been planning our conference workshop, 'From practice to publication: Sharing our stories.' R-SIG members will assist Dr Stephen McKeever and facilitate this seminar. Stephen is a lecturer in the Department of Nursing at the University of Melbourne, and Chair of the Australian College of Critical Care Nurses, Paediatric Advisory Panel. In his current capacity as the Editor in Chief for *Journal of Child Health Care*, Stephen believes the most significant barrier facing inexperienced authors is the construction of an acceptable manuscript. Consequently, during the workshop, Stephen will assist clinicians and research students develop high-level writing skills. R-SIG members will also share their recent writing experiences and the lessons learned. Please join us to benefit from Stephen's decades of experience in nursing, writing, and publishing.

Into 2023, the Research Special Interest Group will continue with various presentations and projects to encourage the pursuit of research excellence among neonatal nurses. We welcome new members to our monthly meetings. Please feel free to join at any time.

ANNUAL CONFERENCE 2023

Save the date!

This newsletter is published quarterly, in March, June, September, and December

Please submit items in the month preceding each issue.

All items will be edited to newsletter standard.

Editor Shelley Reid

Proof-reader Jan Polverino

All enquiries and submissions to be sent to newsletter@acnn.org.au