Australian College of Neonatal Nurses Inc.

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Newsletter

June 2015

About the newsletter

This newsletter is the official communication of the Australian College of Neonatal Nurses to its members, produced quarterly in March, June, September and December. It presents information on a range of professional issues and clinical topics of interest to neonatal nurses. Any member of ACNN may contribute.

Articles should be submitted by email as Word documents. Any images should be in jpg format. Referencing style should follow the Vancouver style as adopted by the journal *Neonatal, Paediatric and Child Health Nursing*. All content will be edited to newsletter standard.

The newsletter team for this issue comprised Jan Polverino, Shelley Reid, Nadine Griffiths, Amy Barker and Rachel Jones.

Please send correspondence to the newsletter team at newsletter@acnn.org.au

Views expressed in this newsletter are not necessarily those held by the Australian College of Neonatal Nurses Inc.

Next deadline: 1 August 2015

ACNN National Committee 2014 – 2015

Office-bearers

President	Denise Kinross
Vice president	Karen Walker
Secretary	Shelley Reid
Treasurer	Karen New

Committee members

Neil Pulbrook

Sally Jeston

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From the President

Denise Kinross

Welcome to the first national ACNN newsletter. In March this year the national executive met with representatives from the ACNN state branches and the Special Interest Groups (SIGs) to work on the development of the ACNN Strategic Plan for 2015-2018. One of the major issues discussed was communication and ensuring the members were aware of what is happening in ACNN. This newsletter was one of the suggested ways to improve communication nationally. The NSW State Branch has distributed a state newsletter for many years and with their expertise they begin the national newsletter. All state groups and SIGs have been invited to provide information for the newsletter so all members will receive information on what is happening in ACNN.

In addition, to improve communication further we will be reiterating to branches and SIGs the importance of maintaining their pages and activities on the website and to use the email feature of the ACNN website in communicating to the members of those respective groups. Each state branch and SIG has a page on the website with information on branch and SIG executives and how to contact them. The website provides information on what is happening, renewing membership and information on conferences and seminars. I would encourage you to visit the ACNN website to find out what is happening in your professional organisation.

Over the remainder of the year we will continue to work on the draft strategic plan and respond to the issues raised on the day in March; when complete this will be placed on the website for comment. The future of ACNN is dependent on all of us working together to provide a strong professional organisation. Please consider how you can help ACNN – encouraging colleagues to become members, participating in state branches or SIGs or by nominating for the national executive are just some ways you can assist.

Information and registration for the national conference and symposium being held in Sydney in September is now available on the website. This year we have made several changes to the program following feedback from members:

- moving the national executive meeting to the Wednesday prior to the SIG meetings so this doesn't overlap with SIG

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From the President (cont.)

meetings,

- having a national executive meeting for members and SIG groups for an hour on the Thursday morning before the commencement of the SIG meetings, to raise any issues they wish to be discussed, and
- as part of the SIG meetings time has been arranged with Angela Casey from the NSW branch for members interested in a the formation of Neonatal Nursing Leadership SIG.

The symposium has a great program with international and Australian speakers presenting on topics related to skin care in the newborn. I would encourage you all to attend the conference and symposium if you are able to as it is a great opportunity to network with colleagues and find out what research and quality activities other neonatal nurses in Australia are undertaking. I look forward to meeting many of you at the conference and symposium.

I hope you enjoy your first national newsletter.

ACNN NSW Branch Chairperson Report

Welcome to this June issue of the ACNN newsletter. The first half of 2015 has been an exciting time for ACNN NSW branch and executive committee. As the current chairperson for the NSW branch I represent our state at the national executive to raise discussion of issues pertinent to NSW members. In mid-March the ACNN national executive held a planning day to facilitate open communication between the national executive, state branches and special interest groups. This was an extremely productive and stimulating day. As a group we were able to discuss our thoughts on the priorities and goals of the college, raise achievements and challenges for state branches and examine ways in which the fantastic work of the special interest groups can be communicated more widely to all ACNN members. I am looking forward to the initiatives that will be re-energised or commenced following the intense discussion throughout the day.

There was more fascinating discussion during April at the annual congress of the Perinatal Society of Australia and New Zealand hosted in Melbourne. This year there was a wonderfully thought-provoking program. On day one I attended a breakfast session discussion on the challenges of clinical aEEG interpretation lead by Professor Lena Westas, Dr Bhavesh Mehta and ACNN member Nadine Griffiths. The session critically analysed challenging aEEG readings on patients within Australia and internationally and the difficulties in offering clinical judgement for newborns with unusual traces. I was fortunate to chair a morning session on neonatal care highlighting fantastic neonatal nursing research examining the benefits of music therapy within the NICU by Professor Kaye Spence and the use of topical anaesthetics for needle related pain in newborns by Dr Jann Foster. The afternoon plenary session on day two offered a particularly interesting discussion on the ethics and success of foetal surgical interventions. Foetal surgery was presented as well established in the United States however Australian clinicians raised the difficulties of developing new foetal therapies in Australia and New Zealand. Day three commenced with a fantastic presentation of the current focus of the Cerebral Palsy Alliance with exciting areas of research focusing on stem cell therapy. The conference concluded with a controversial discussion of asylum seeker care in Australia from a panel of medical professionals with anecdotal discussion. I strongly encourage you all to join the conference next year in Tropical North Queensland.

The next calendar event for the NSW branch of ACNN is our annual country seminar being hosted by Albury Hospital on 20 June. Similarly the committee is currently revamping the twice-yearly evening seminars. This April we hosted a successful multidisciplinary discussion and hope to broaden both our content and reach of attendees in the future. A special thanks to Dr Tracey Lutz and ACNN members Rachel Jones and Caroline Karskens for their contributions on the night.

Enjoy the June edition of the newsletter and I hope to see you at an upcoming ACNN event.

Amy Barker

ACNN NSW Branch Chairperson

NSW Clinical Nurse Consultant Column

Another lesson learnt from a burning experience

James Marceau

Clinical Nurse Consultant Neonatology, Westmead Hospital

It has been a little more than twelve months since Jennifer Kutsch and Daniele Ottinger published two case reports of chemical spillage injuries in extremely premature infants from chlorhexidine solution.[1] The first case report involved a 610 gram female infant that needed the insertion of umbilical venous (UVC) and umbilical arterial catheters (UAC) prior to transport to a tertiary NICU where an unspecified concentration of chlorhexidine was used to prepare the infant's umbilical stump and the surrounding skin. Unfortunately, both of these lines were found to be in suboptimal positions and were removed and re-inserted at the tertiary NICU with povidone-iodine as the disinfecting agent. Only the UAC insertion was successful and the pediatric surgeons then had to insert a peripherally-inserted central catheter (PICC). Before we begin to roll our eyes at the vascular access issues the case takes a sad twist with the discovery on day two of this little girl's life of a small whitened patch of skin in the inguinal region, which was initially thought to be a the beginning of a fungal infection. The main focus for this fragile infant was her respiratory condition with the need for high frequency oscillation ventilation and in the 48 hours that elapsed after the surface swab of the small whitened-area of skin was taken, the initially small area was developing into a full-thickness chemical burn, which would later cause extensive abdominal scaring. The second case report has a similar theme, albeit that the chemical injury to the infant's umbilicus was discovered when the retrieval team arrived. The lessons from these two burning experiences were that attention should be paid to what solution was used for the cleansing of the skin prior to insertion of the UVC/UAC and that if the infant's skin was initially wiped with sterile water the damage may not have occurred. Somehow I think they have lost the point as the damage had already begun before the transfer of the patient to the tertiary hospital. Let us look at the existing literature of similar cases with commonly used disinfectant agents that have been involved with reports of chemical injuries.

Reynolds *et al*.[2] in 2005 present the case of 644 gram infant sustaining extensive chemical burns to his abdomen and upper thighs from 0.5% chlorhexidine in 70% methanol, used by a paediatrician who inserted a UVC prior to the infant's transfer to the tertiary unit. He died some 25 days later from the effects of the burn, hypothermia of 32.6˚C, hyponatraemia, fungal sepsis and renal failure.

Mannan *et al*.[3] in 2007 presented a case report of a 26-week-gestation infant that was in the process of being retrieved by a transport team who normally used sterile normal saline to cleanse the umbilical cord prior to insertion of central lines. However, they used the trolley that was set up by the regional NICU staff. The solution was 0.5% chlorhexidine in 70% alcohol and the infant lay on the sterile drapes for up to 30 minutes after the insertion of the lines; it was chlorhexidine and not sterile water. A small bluish-red discoloration that was evident a few hours after arrival at the tertiary unit progressed over the next 24 hours into full-thickness burns.

The last case report is by Lashkari *et al*. in 2012[4] where a 2% chlorhexidine solution was used to clean the skin of a 25-week-gestation infant resulting in partial thickness burns to the right and left flanks. The message from this report was that clinicians should take care with when using chlorhexidine solutions to clean the abdominal area of a premature infant.

Chemical burn pathophysiology

In a review of chemical burns, Palao *et al*.[5] state that it is abundantly clear the epidermis of adults and infants have minimal protection against chemical injuries, and that the damage will continue until the offending chemical is removed. The severity of the injury from a chemical burn is dependent on the concentration of the chemical and the duration of the contact to the body. If we reflect on all of the case studies involving accidental chemical burns for chlorhexidine, the length of exposure or duration of contact of the skin with chlorhexidine ranged from 24 to 48 hours. The preterm infants in these cases had an unprecedented increase in morbidity and mortality beyond the expected level associated with extreme prematurity. This is because the epidermal layer of the premature infant is approximately one to two layers thick and offers no protection against 'exogenous agents[5] such as commonly used antiseptic solutions. Damage to the already fragile epidermis from a chemical burn causes a significant increase in transepidermal water loss (TEWL) that cannot be effectively managed with an increase in incubator humidity levels.

TEWL in 26-week-gestation infants is reported to be approximately 45gm/H_2O/m^2/hour,[7,8] so fluids should be increased depending on the electrolyte imbalances associated with the burn. There should be multidisciplinary management of the infant including consultation with a children's burns service. The burns team will advise on the appropriate silicone impregnated dressing for the burn. In view of the increased risk of bacterial and fungal infections, hand hygiene should be meticulously adhered to. Documentation of the burn should occur on a daily basis. Pain relief should be adequately addressed and pain assessment should be a priority.

In summary, most of these injuries could have been prevented

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if the infant's skin was free of whatever antiseptic solution was used as it was prolonged exposure in all of the case presentation that caused the injuries. A UK Government *Drug Safety Update* was released in 2014 that stated chlorhexidine must not be allowed to pool next to a baby's skin.[9] In the *Drug Safety Update*, there was no specific recommendation on the safe concentration of Chlorhexidine to be used in clinical practice. Unfortunately this was more than 10 years after the first reported 'burning experience'.

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NSW Educators Column

My experience as a district HETI Education and Training Developer

Debbie Wick

Neonatal Nurse Educator, South Western Sydney LHD and Education and Training Developer, District HETI

In October 2013, I was seconded from my position as a neonatal nurse educator to work as an education and training developer for District HETI. District HETI is part of the NSW Health Education and Training Institute (HETI) and their operational model is a partnership between HETI and the Local Heath Districts (LHDNs) and Specialty Networks. A key component of this partnership is the secondment of district and network education staff to assist District HETI with the rapid development of education and training resources for staff across NSW Health, in line with local needs. The education and training resources developed consist of e-learning modules, face-to-face workshops and are now moving in to mobile learning, webinars and podcasts.

When I found out I was being seconded to District HETI in late August 2013, my first reaction was one of pure panic. I had been a neonatal nurse for over thirty years, and had spent the past fifteen years as a neonatal educator. How could I develop education modules on topics I knew nothing or very little about? I was a neonatal specialist not a generalist. In addition, I had already planned all my neonatal education courses, workshops and in-services to meet the needs of my district neonatal nurseries and maternity units for 2014. What was going to happen to them now as my position was not being backfilled. Another scary issue for me was that although I was an experienced nurse educator and could develop course curriculums, learning packages and face to face presentations, I had no experience in developing e-learning modules. The development of e-learning modules was a core part of District HETI business – would I be able to do a good job?

After my initial panic, I spoke to some of my educator colleagues who were about to finish their secondments to District HETI and who reassured me that I could do the job and I would be well supported by District HETI management. I felt much better after speaking to them and even more so when I spoke to the Director of District HETI who was extremely reassuring and supportive. I decided to see this secondment as a professional development opportunity for me to learn new knowledge and skills, which I could incorporate into my role as

a neonatal educator when I returned to my district. I was also able to stay in my office at Liverpool Hospital, which made it easier for me.

All new District HETI staff were given two days of orientation at the beginning of October 2013. There was so much information and I felt completely overwhelmed by the end of it but the best part of the orientation was meeting all the other District HETI staff, who were all very friendly and supportive. This was the beginning of a very steep learning curve for me and I have been pushed way out of my comfort zone. There have been many times over the past 20 months when I felt stressed and wondered whether I could meet all the challenges I was presented with. However, with the support from the District HETI management team and my colleagues I made it through and I have learned so much and I love the work. In fact, I have enjoyed it so much that I agreed to continue my secondment until next year. I have been given many opportunities for professional development and I feel I still have so much more to learn.

I have encountered many challenges working with District HETI. One challenge was learning how to develop succinct, interactive e-learning modules. I didn't realise how much work went into developing an e-learning module and at first I had problems with reducing the amount of information I wanted the learner to know. There is limited time in an e-learning module so I had to learn new methods to convey essential information in a succinct and meaningful way. The modules also have to be interactive and I have discovered different methods to incorporate this into the module. For my first four projects, I was lucky to have an instructional designer on my project teams to assist me and my fellow team members to design a good e-learning module to meet the learning outcomes with a variety of design strategies. The instructional designer also supported me to develop my skills in creating good scenarios, which are a good method of presenting a number of issues relating to the project topic. I now have some basic instructional design skills but I have so much more to learn.

Another challenge was learning how to work in a virtual team. District HETI education and training developers come from all over NSW, so meeting with your project team members face-to-face is not always possible. Much of the project work is conducted via email and phone calls between project team members and subject matter experts. I have become an expert at teleconferencing and I feel that I spend at least three quarters of my working life on the phone. Teleconferences are often challenging as many staff share an office and it can be difficult to concentrate when the noise of a busy office is in the background. I try to book a small meeting room for a teleconference as much as possible but sometimes a room is not available. A major drawback to teleconferencing is not being able to see documents that the team will be working on so there is a lot of emailing of documents for comments amongst the team. However, District HETI is implementing a videoconferencing and document sharing system called Jabber for all their staff. Once this is fully operational for all staff it will make working in virtual teams easier.

One of my concerns when starting with District HETI was since most of my knowledge and skills were limited to neonatal nursing I would not be able to develop education programs on subjects I was not familiar with. However, I soon learned that the project teams were assisted in developing the content of the module by a group of Subject Matter Experts known as the SME group. The SME group are representatives from different Districts, Specialty Networks, other NSW Health Pillars – the Ministry of Health (MoH), Agency for Clinical Innovation (ACI), NSW Kids and Families (NSWK&F), Cancer Institute and the Clinical Excellence Commission (CEC), and relevant peak bodies or organisations. The SME group provide the correct content and the District HETI project teams provide the educational expertise for the development of the education programs.

I was relieved that I wasn't expected to have the expert knowledge about the project topic but I soon found out that dealing with the SME group was another challenge. SME groups are very passionate about their area of expertise and usually want much more information included in the module than time will allow as e-learning modules are limited to 20 or 30 minutes. This is usually solved by having everyone agree on what can realistically be included in the module. One of the responsibilities of the project team lead is to keep the SME group on track with the project. I have been the team lead on a number of projects now and I am much more comfortable in dealing with SME groups. I have also improved my negotiation skills as a result of my interactions with the SME groups.

One of the best things about my experience is the support I have received from the Director of District HETI, the senior project officers and the other education and training developers. They always made themselves available to discuss my concerns and continually encourage me in my District HETI journey. Since we all work in different areas of the state, face-to-face professional development days are organised throughout the year for all District HETI staff to meet and network. There are also monthly drop-in teleconferences for the team to participate in, which are helpful for us to be given the latest information on current projects that District HETI is involved in. I was also given the opportunity to attend a Blended Learning conference last year, where I gained new knowledge and skills on delivering education in many different ways.

Since I have been working for District HETI I am often asked how the topics for e-learning modules and face-to-face workshops are chosen. Every six months each LHD and

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NSW Educators Column (cont.)

specialty network are asked to nominate their top five clinical and top five non-clinical education priorities to District HETI. Each District and Network has a District HETI contact person, who is often in the education/learning and development units but not always. If you want to make a submission to have an education program developed by District HETI it will be useful to find out who your District HETI contact person is. Once the priorities are received by District HETI, an independent panel meets to review the submissions and decide which projects will be developed. A submission is more likely to be successful if a number of submissions on the same or similar topics are received. The projects are then allocated to a project team.

My journey from a nurse educator to a District HETI education and training developer has been challenging but also rewarding. Even though I was scared of the unknown at the beginning and have been pushed way out of my comfort zone I am glad that I have had the experience. If anyone is given the opportunity to be seconded to District HETI embrace it with both hands as you will have a great experience and learn so much.

NSW Breastfeeding column

Inter-hospital NICU Lactation Group

Have you ever changed place of work within the same speciality and realised that certain strict procedures you previously followed were suddenly done 'differently' … even though you thought you were working in an evidence-based era?

Have you ever been told quite directly, "this is how we do it here!"?

Have you ever felt that 'you' were re-inventing the wheel when writing local policies and guidelines?

I suppose this is a common situation we find ourselves in and by trying to address this 'we' endeavour to stay on top of new evidence and information by attending conferences, reading new publications and somewhat relying on the greater network of neonatal nursing, medicine and midwifery. However it is still difficult at times .

Three years ago Katie Vercoe (CNS lactation from Westmead NICU), Gabrielle Kerslake and Rachel Jones (CNS lactation in Grace Centre for Newborn Care CHW) met up over a coffee one busy morning with the hope of swapping ideas on managing the continued implementation of the NSW directive of *Safe handling and storage of breast milk* within our places of work. We discussed the design of milk labels, milk storage containers, equipment for mothers expressing and how we store it all safely. The one common thing we all realised … we had very little procedure/equipment handling practices in common!

The rest is history…

The NSW NICU Lactation Group was developed with terms of reference aimed at collaboration and consistency across all sites when managing the support of parenting and breastfeeding within the neonatal intensive care environment.

The group is made up of a lactation representative from almost all the NICUs in NSW tertiary hospitals including a neonatologist, and CNC s where there is no dedicated paid lactation position. The enthusiasm for the network has been overwhelming and the role of the group is growing.

We meet quarterly, rotating the site venue every time. This has been really useful in giving us all a chance to see the procedural running of different nurseries and therefore looking at what works well in different sites.

Items on our first agenda included the use of breastfeeding scores and cleaning expressing equipment then went further by sharing ideas about other equipment, such as privacy screens and recliner chairs for practising kangaroo care.

Together as a group we are developing breastfeeding data points that we are now able to collect and add to the NICUS data collection and we have been working with Shelley Reid and Ian Callender to assist with some of our future projects.

The first collaborative guideline that we are working on is called *Immune supportive oral care* or ISOC. This involves having a formalised approach to giving preterm or sick babies colostrum orally even if they are nil by mouth.

The item on the agenda that has been permanent is the overwhelming need of a donor milk bank that we can all access that will hopefully happen in the near future.

I suppose in the age of online learning and virtual networking ... the power of face-to-face contact has been incredibly inspiring. We hope with the effort of this group, some of the inconsistencies and conflicting practices may be limited within our specialised area. And in doing so, contribute to ongoing improvements to support women and their families with parenting and breastfeeding as they journey though the neonatal units in NSW.

Gabrielle Kerslake and Rachel Jones

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ACNN 2015 Annual Event

Program

Thursday 10 September	Special Interest Group meetings
Friday 11 September	ACNN Conference Day
Saturday 12 September	Neonatal Skin Health and Skin Care Symposium

Venues

For all events except Welcome Reception

Amora Hotel Jamieson, 11 Jamieson Street, Sydney, NSW

Welcome Reception

Bridge Marquee, Pier One, 11 Hickson Rd, Walsh Bay

For all information and registration, see

http://www.acnn.org.au/news-and-events/acnn-national-conference/

ACNN Conference Invited Speaker

Professor Donna Waters
Dean
Faculty of Nursing and Midwifery (Sydney Nursing School)
University of Sydney, Australia

Donna is a registered nurse with more than 30 years of experience in nursing, medical and health services research. She has a Bachelor of Arts (with majors in psychology and statistics), a Master of Public Health and a PhD. Donna has worked as a paediatric nurse and researcher at the Children's Hospital, Westmead, as the manager of Research and Projects at the College of Nursing, as Associate Professor of Nursing for the NSW Justice Health service and as Associate Dean (Research) at Sydney Nursing School. Donna's research currently focuses on innovations and strategies that aid the transfer and implementation of research evidence into clinical practice.

ACNN National Committee meeting with members, Thursday 10 September

The National Committee cordially invites members to meet for a Q&A session preceding the start of the special interest group meetings. The executive will discuss matters relating to college activities and future plans for the college.

The meeting will be held in the Lindsay Room from 8.30 to 9.30am.